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RUSSO-UKRAINIAN WAR

Nirvik Dhungana - X "Great Wall"



Image Credit: Anuska Lamichhane - VIII

On 24th February, 2022, Russia launched an invasion of Ukraine that quickly caught the global attention. It is colloquially known as the Russo-Ukrainian War. As of September 2022, the war exceeded 30,000 deaths, 140,000 instances of demolition of structures and an expense of \$350 billion approximately. The war broke out in multiple fronts, namely Donbas, Crimea (Former Ukrainian State before Russian invasion and subsequent annexation in 2014), the capital of Ukraine (Kyiv), and Russian forces continue to occupy Donetsk, Kharkiv, Kherson, Luhansk, Mykolaiv, and Zaporizhzhia states of Ukraine.

History

After the downfall of the Soviet Union (USSR), The Budapest Memorandum (5th December 1994) declared Ukraine an independent country with its own territorial integrity. In Public Papers of the President of the United States, page 1495, it addressed Ukraine's Independence Day on the public's front to support the country's independence, its sovereignty, and its territorial integrity. The Autonomous Republic of Crimea was also established under the Ukrainian Authority. But on 20th February 2014, Russia planned an invasion of Crimea and by 18th March, it was

annexed as a part of Russia. Disturbances between the two countries had begun since.

In April 2014, the people of Donbas expressed discontent with the new Ukrainian government and held a referendum for independence. However, it was viewed as undemocratic and illegal by the international community. But, the false attempt of the Russian government to interfere evidenced the subject of genocide in the Russian speakers in Donbas. This eventually led to the War in the Donbas. Due to the increasing instability, the Minsk Agreement was signed to seek to end the war in the Donbas. Eventually, a war broke out on Russia's side due to the claim of discrimination of Russian-speaking population.

At present, Russia has launched an invasion of Ukraine and its annexation.



Image Credit: npr.org

Consequences

According to the IEA (International Energy Agency), "Prices of oil surged by USD 8/bbl to USD 105/bbl following the news, on expectations that sanctions against Russia would cripple energy exports."

Similarly, the research conducted by Nature.com concluded that Ukraine and Russia account for one third of wheat, one fifth of corn and one third of barley exports in the global market. Due to the war, the fate of 6 million hectares of land remains uncertain and tangles the global food crisis. Lebanon, for instance, obtains 80% of wheat from Ukraine.

Russia has been negatively affected by the war too. The mutual relationship between NATO

and Russia since 1991 has been falling apart ever since the unanimous decision to annex Crimea. Through much evidence, Ukrainian President, Volodymyr Zelensky, urged expelling Russia from the UN security council in a videoconference.

The protest against Human Rights Violation is also ongoing. The OHCHR (Office of the United Nations High Commissioner for Human Rights) confirmed 3000 civilian casualties in the conflict zone. There are reported cases of abuse and torture committed by both sides, which are still under investigation. But sexual violence and ill-treatment have caught attention among sides, global communities.

Conclusion

The Russo-Ukrainian War has been a possibility of a global scale war ever since World War II. President Putin gained fear after announcing the use of nuclear weapons. Through investigation by US intelligence, Russia possesses around 2000 tactical nuclear weapons. Although NATO and the UN hope to end the war with peace talks, action by Russia will lead to a war.

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DEMOLITION OF ILLEGAL CONSTRUCTIONS IN KATHMANDU

Alok Khadka - X “Great Wall”

The politics of Nepal has gradually changed in Nepal after the local election conducted on 30th Baisakh, 2022 in some parts of the

country. Independent candidates rarely win the election, but Balendra Shah has changed history. Though political analysts had ruled out His victory, and though his claim to get 90,835 votes were not achieved in numbers, he achieved his win as the mayor of Kathmandu, Nepal’s capital. Now, he will become one of the youngest mayors of Nepal, at 32. But, this is not only about age. Balen Shah’s victory represents the idea of change in every way. So, his win is the victory of change.



Image Credit: myrepublica.com

Especially, talking about the role of Balendra Shah. It’s an extraordinary and admirable job that had never been done before. It seems that he had a great vision and was already planning for future activities. Likewise, he says his focus will be on the development of education, sanitation, and waste management along with the availability of water for all, preserving art and culture, increasing tourism, and controlling pollution. He says that people with skills will get employment rather than those with a degree. Recently, he came up with a new vision, i.e. demolition of illegal constructions in Kathmandu valley. He had banned the shop on the footpath.

Kathmandu Metropolitan City has escalated its drive to wreck illegal structures and clear shops run out of the undergrounds of business complexes in the city. The city authorities, in the presence of Mayor Balendra Shah, wrecked illegal structures in front of Kathmandu Mall in Sundhara, RB complex in Khichapokhari, and London Pub At Durbar Marg. Balendra Shah had also demolished illegal structures built on the banks of the Bagmati River. The metropolis had also demolished the illegal

structures built in the Bijulibazar -Tinkune corridor. Balendra Shah had started the Campaign of demolishing the illegal construction due to which many local people had also been affected and local people were raising their voices for compensation. Recently, the pharmacies in front of Bir Hospital were demolished as notice was already given to vacate that area. Nowadays, he has started to travel with the map to demolish illegal construction which paves toward the establishment of good governance.

Such activity of Balendra Shah has been supported by many people as well as some people are against it. But, this activity of Balendra Shah can be proven as an opportunity for the promotion of developmental activities. After many decades, Nepal had got an eligible politician in the form of Balendra Shah who had got tremendous support from youths as well as other people.

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DENGUE OUTBREAK IN KATHMANDU

Nhujala Maiya Amatya - X “Pyramid”

"If we had taken preventive measures immediately after the first case was detected, the deadly disease might not have been so widespread." - Dr. Meghanath Dhimal, an expert member of WHO.

Dengue is a viral disease that is transmitted to humans through infected mosquitoes. A special breed mosquito called *Aedes Aegypti* causes the disease. Mostly this disease is found in the tropical and sub-tropical climate because mosquitoes have a suitable environment for their growth and development. Dengue is

classified into mild dengue and severe dengue. Severe dengue can be deadly for our health.

Dengue has been an epidemic in many Asian countries because Asian countries have subtropical and tropical climates. The number of cases is increasing day by day and Nepal is also one of the countries where dengue has been an epidemic. The outbreak of dengue has reached all the districts of Nepal except Mustang. According to the Ministry of health and population, at least 28 people have lost their lives because of dengue and over 28,000 people have been infected in the period.



Image Credit: geo.tv

The Kathmandu Valley has emerged as the most critical hotspot. Even though the government has been saying that it has been making efforts to control and lessen the dengue causes, the result seems dismal. The Kathmandu Valley is plagued by a dengue outbreak now. Search and destroy campaign has remained as an effective option to eliminate the breeding site of mosquitoes. For the restraint of the epidemic, the metropolitan has been doing search and destroy campaigns and awareness programmes but these efforts seem to be dinky.

Dengue is not a new epidemic for Nepal because this epidemic was there in 2016, 2017, 2018 and 2019 too. Nepal has witnessed an outbreak of the deadly disease since the beginning of the year and in the pre-monsoon, monsoon, post-monsoon seasons. The only way to be safe from dengue is to be safe from the mosquito bite and from that we have to :

- Use Insect repellent
- Wear long sleeve clothes
- Don't let water to be collected near houses
- Control mosquitoes inside and outside the house.

Dengue can be serious if not cured properly. Therefore, we should know the warning signs of dengue so that we are able to take some action on time. Here are some warning signs of dengue:

1. High fever for 5-7 days
2. Abdominal pain and tenderness
3. Muscle cramps
4. Rashes around the body
5. Nausea and vomiting
6. Pain (eyes, joint, bone)

As there is no specific treatment for dengue, all we can do to be safe from dengue is treat the symptoms and counsel with healthcare providers.

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THE ONGOING IRANIAN PROTESTS

Aashna Hachhethu - IX “Buddha”

Iran, with a population of 85 million, is the 17th most populous country in the entire world. It is officially an Islamic republic situated in western Asia surrounded by Iraq and Turkey in the west, Azerbaijan and Armenia in the northwest, Caspian sea and Turkmenistan in the north, Afghanistan and Pakistan in the east and the Gulf of Oman and Persian gulf in the south. Iran is a beautiful and peaceful country where everyone has their own rights and rules to follow. As the major population in Iran is Islam, there is a law where every woman here have to wear a hijab, regardless of her religion. There is a special

type of police force that observes if the women would cover their hair properly or not. But who would've known the Iranian police could fall so low just to follow a rule that should've been optional.



Image Credit: cnbc.com

In the present, Iran is undergoing its worst unrest as Iranian people are protesting day and night against the regime and the morality police for murdering an innocent woman for not wearing her hijab properly.

Why did it all start?

It begins with a sudden arrest of a Kurdish woman by the so-called morality police or the guidance police in the streets for not covering her hair with the hijab appropriately. These types of police forces were established in 2005 as a part of national police with the objective of upholding the law of ‘proper’ dress, i.e. hijab, for women. Before the 1979 Islamic revolution, it was up to the Iranian women to decide for themselves whether to wear the hijabs. But for more than three decades since, it's been compulsory. Talking about the contemporary issue in Iran, everyday women are being arrested because of their incomplete way of wearing hijab. But to this date, no woman had to face this sort of problem that shouldn't even be a problem. Earlier on September 16, Mahsa Amini was detained by Zhina, the police, who stated she wasn't wearing her hijab correctly. Three days later, she died in police custody. She was just 22. Since then, protests have been spreading across the country against the regime of women wearing hijabs. Zhina was Mahsa Amini's Kurdish name, but she used her official name as Kurdish names are banned in Iran.

This is actually not the first time that the Iranian people are in the streets against the mandatory regime. There have been many protests before, but killing someone because of this act is too much. Women are fed up with all the dictatorship done over them every single day. Even though these protests are visible, the Iranian government has never even tried to understand their people's feelings until now. Their own people had it with them. Iran has its own immense world inside it. It's truly terrifying. You see, protesting in Iran is nothing like in other countries where you just go in the streets and shout what you want. Iran has nothing like that. People are scared to even protest for their own rights, which should've been given to them without any problem. People feel scared to go on protests because they kill their own people. Iranian government and officers literally assassinate their own people just to end the protests.



Image Credit: time.com

How did Mahsa Amini die?

About the talk of Mahsa Amini's death, it is still not confirmed if she really was murdered or not. State media says she had a heart attack, slipped into a coma and then died. But, based. In her family's words, they said she was physically assaulted by officials and beaten up to death even though she was following the dress code.

This caused Iranian women to come down to the streets and start protests. Mahsa Amini's death sparked outrage for the strict dress codes for women. Now, protests have expanded further into Iran. Iranian women can be seen

in numerous videos burning their hijabs as a way of showing defiance against the mandatory hijab laws. Others are cutting their hair and sharing the videos on social media to gain international support and show the world what they're actually going through. Students and school girls are joining the demonstrations across the country. Dozens of protesters have been killed since the unrest, but still people are risking their own lives. Dozens just to get fairness, just so that they can get justice.



Image Credit: iranhr.net

Being in a protest is like being alive. As long as the Iranian women are deprived of their fundamental rights, they are going to shout and protest every day and night. It feels like they're alive by chanting "woman, life, freedom" in protests. Women in Iran cannot choose their clothes, cannot choose the job they want, cannot get a divorce without their husband's permission, cannot marry without their father's permission, they cannot sing. And that is not all of this sore and tragic story. Even without their rights, women are forced to wear hijabs and they do as told. Denying women from giving them their own fundamental rights is the most inhumane act. During these protests, the regime has used tear gas, batons, electric shockers, plastic bullets, ball bearings and real bullets. They kill their own people for real. They close the doors of universities, arrest students and shoot them. Unless the protests are over, they don't care about the loss of the population. They've cut the internet access so that the people cannot inform the whole world about the problem. I find it totally unbelievable that the people don't have any right to protest safely in their

own country. As if the people were the enemies for the regime to attack.

These women are determined to protest for their life with their life on line. They take all the risk but still want their freedom no matter what it takes. All they want is justice for the poor girl and all the Iranian women, even though it is not a thing to be protested for. It should simply be given to them, whether they need it or not. They just want justice, so we should support them and let the Iranian women live a normal and free life.

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ADHD: ATTENTION DEFICIT HYPERACTIVITY DISORDER

Aabha Khatiwada - X “Greatwall”



Image Credit: theglobeandmail.com

Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder which is responsible for impediment in a number of aspects of brain function. It is often noticed with the behaviours of impulsiveness, inability to concentrate, continuous in a pattern which hampers the daily functioning of the patient. In addition, diagnosis of ADHD tends to happen with the change in the normal atmosphere of the child; including the start of school. The symptoms of ADHD, in cases of presence, are mostly diagnosed in children

around the age group of 3-7. However, cases of delayed diagnosis are not uncommon. According to the diagnostic and statistical manual for mental disorders, the fifth edition, the recent most update on March 2022, ADHD is split into three subtypes, i.e.;

- inattentive and distractible type
- hyperactive/impulsive type
- combined type

The symptoms of ADHD differ among the subtypes inattentive and impulsive, while common in the combined type. Individuals diagnosed with ADHD, inattentive and distractible, are more likely to overlook and miss minor details in their daily activities, such as schoolwork or work in general. Being mentally distracted, inability to indulge in tasks that require tedious amounts of concentration, not paying attention when talking directly are some of the symptoms of ADHD, inattentive and distractible types. Similarly, fidgeting and squirming while seated, talking excessively, having a hard time waiting for their turn are some symptoms of the type impulsiveness/ hyperactivity.

The diagnosis of ADHD is proven when the patient shows 6 of the symptoms among 9 while under medical watch for 6 consecutive months.

There has been no transparent cause towards ADHD. A number of combinations of genetic and environmental factors are said to play a role in the growth of the condition. Two studies have revealed that the insufficient production of the protein CAPRIN1 in the brain can cause ADHD alongside myasthenia and autism spectrum disorder. ADHD patients often face other disorders such as anxiety disorder, learning problems, personality disorders, mood disorders etc. Furthermore, the study, published in the Journal of Psychiatric Research found that 1 out of 5 adult ADHD patients also struggle with hoarding disorders. Individuals with high ADHD traits are also shown to be prone to insomnia.

Looking after an ADHD patient may be challenging at times. Nevertheless, continuous and consistent efforts while working as a team must be applied. There are a few methods which help reduce and control the symptoms of ADHD in an individual. They include medications, psychotherapies and counselling. Everybody must be a supportive figure in order to create a healthy environment for individuals struggling with ADHD to live in.

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ARE TURTLES IN THE VERGE OF EXTINCTION?

Prabha Thagunna - IX "Janak"



Image Credit: khou.com

Climate change has a significant effect on ecosystems. Climate change doesn't only refer to more than an increase in temperature. It also includes rise of sea level, change in wind patterns, changes in weather patterns resulting from drought, flooding, landslides and precipitation and many more are all altered as a result of climate change.

Sea turtles are one species that is being negatively impacted by climate change. Turtles are reptiles that have a shell made of bone and cartilage that protects them. There are

approximately 356 species of turtles found all across the globe. The turtle hatchlings start off as eggs that are laid in nests on the beaches. Upon hatching, the hatchlings are provided with an egg tooth called a caruncle that helps them break free of the egg once it is ready to hatch. When they reach the surface, they slowly ascend until they reach the water and proceed to begin their journey. Because of climate change, the gender of a species is altered as well. There is a significant relationship between high temperatures and the effects they have on species and genders with the change in temperatures.



Image credit: latimes.com

Turtle sex is determined by temperature, also known as TSD (temperature-dependent sex determination), which is also very similar to the sex determination of humans: incubation temperature. Increasing temperatures around the world have been causing world fires, melted glaciers, and droughts, in addition to causing turtles to experience a unique problem; gender imbalance. Recent heat waves have caused the sand on beaches to become so hot that nearly all turtles are now conceived as females. Sea turtles have their sex based on the temperature of the sand. Many sea turtle populations are in danger of high egg mortality and female-only offspring production. Females are born when the sand is warm, while males are born when it is cool. The hot weather in the summer is also one of the reasons why there is a higher number of females in the summer.

High egg mortality and female-only offspring production threaten many sea turtle populations. In contrast to males, who are born when the sand is cool, females are born

when it is warm. Therefore, hot summers tend to draw more women. Logistical and moral issues arise when determining the sex ratios of hatchlings at nesting beaches. No male turtles have hatched in the past four years, according to researchers tracking turtle hatchlings. Male turtles conceive when the incubation temperature is below 27° C, while female turtles conceive when the temperature is above 31° C.

A study conducted in Australia revealed that almost a hundred percent (91.9%) of the country's turtle population is female. This is a concern for the future of the species as it means that the females are not able to reproduce normally. In order to ensure that the eggs hatch successfully, the male to female ratio should be balanced. These individuals live a long time and require a long period of time to reach sexual maturity in order to reproduce successfully.

Some turtles don't reach sexual maturity until they're around 30 or 40 years old. Renowned turtle rookeries have been producing mainly females for more than two decades, and feminization is expected to occur in the near future. There are a number of experts who believe that climate change is adversely affecting the natural environment and preventing species from adapting to it in order to survive.

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CANCEL CULTURE

Trusha Dahal - IX “Janak”

Cancel culture commonly known as public shaming refers to taking a person out of a circle as a punishment for a certain action. Cancel culture can take place online, in social media or in person. Cancel culture has been around the globe for a very long time but this

term has been mostly popular since 2019. This public shaming has been occurring most frequently through the media like twitter, facebook and instagram.

People like influencers and celebrities tend to be more attacked by cancelled culture. These people are mostly cancelled due to their offensive actions or words. Many celebrities including Ellen Degeneres and JK Rowling have faced cancel culture. Many public figures including Barack Obama to Donald Trump have given their opinion on cancelling culture. Cancel culture can start from an opinion and end with lots of problems. This culture can take place in the form of calling out on social media, exerting pressure, boycotting and cancelling their public appearances.

Different people have been giving different opinions on this culture. Some people think this is the best consequence to one's actions and it gives power to the public voice, whereas others think this hampers one's social life and can be referred to as cyberbullying. According to a survey held in America, the majority of people think the cancel culture on social media is not a productive behaviour as it solves nothing and can actually make things worse.

While some may disagree, Cancel culture is being used as a tool to stop harmful actions and offensive words. Cancel culture has its both pros and cons. If used wisely it can promote a defenceless voice and if not it could destroy someone's life.

ELIZABETH II: THE LONGEST REIGNING QUEEN OF BRITAIN

Roshi Khadka - X “Greatwall”

“I have in sincerity pledged myself to your service, as so many of you are pledged to mine. Throughout all my life and with all my heart I shall strive to be worthy of your trust.”

Amongst the few women in the 20th century was Elizabeth II who was an epitome of a decisive, receptive, diplomatic and influencing woman leader. Apropos to her 70 years long reign, she has become an example of a stable leader throughout the world.



Image Credit: queenanneboleyn.com

Elizabeth Alexandra Mary, Elizabeth II was born as the eldest daughter of Prince Albert, the duke of York and his wife, Lady Elizabeth Bowes-Lyon, on April 21, 1926 at 17 Bruton Street in Mayfair, London. Her father was the youngest son of the then king, George V. Her uncle, Edward VIII had held the title 'Prince of Wales' who was the heir to the throne. Elizabeth II evidently was not expected to play any important roles in the British monarchy. Eventually, Edward VIII renounced the throne in order to marry a divorcee from the USA which was against the British royal traditions. Consequently, Elizabeth's father became King George VI and she became the heir presumptive of the throne on December 11, 1936.

Since her childhood, Elizabeth II was optimistic, responsible and perspicacious. 14 years old Elizabeth broadcasted her first speech giving prime focus to the children who had to leave their home in order to be safe from the impairment of World War II. In the speech, she mentioned, "And when peace comes, remember it will be for us, the children of today, to make the world of tomorrow a better and happier place." The line depicts the optimism and the reliability that she possessed. During the wartime, Princess Elizabeth and her younger sister Princess Margaret spent their days at Windsor Castle

where they continued their education, participated in air raid drills and performed the responsibility to provide food rations to the whole country. In addition, she was tutored by her father about the matters of monarchy since she was a child. Therefore, she had been preparing herself to be the queen so that no commotions would arise during her reign.

Elizabeth II's monarchical life started from her early 20s. She married Philip Mountbatten of the Royal Navy on November 20, 1947 who was titled as the duke of Edinburgh on the same wedding day. They had their first child, Prince Charles on November 14, 1948. On the 21st birthday of Princess Elizabeth, through a BBC broadcast, she declared to devote her life to the service of the commonwealth. Subsequently, after the sporadic death of King George VI, Princess Elizabeth was crowned as the queen of Britain and head of the commonwealth on February 6, 1952. From the day onwards, the 25 years young Queen Elizabeth II pledged herself to be faithful so as to fructify British monarchy.

She was able to be a reliable and steady monarch which sustained the stability of the reign. Even after the end of monarchy in various parts of the world, due to the contribution of Queen Elizabeth II in modernization of the British monarchy, the monarchical system was never terminated in Britain. She visited various countries around the world in her lifetime. She met many leaders because of which she learnt about good leadership. After 25 years wearing the crown, she was awarded with Silver Jubilee in 1977, Golden Jubilee on her 50th year in 2002 and Platinum Jubilee on her 70th year in 2022.

Queen Elizabeth II died on September 8, 2022, surpassing the reign of Queen Victoria as the longest reigning monarch in the history of Britain.

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POSSIBILITIES OF A MARTIAN COLONY

Sabindra Khadka - X “Tajmahal”

“That is one small step for a man, one giant leap for mankind”- Neil Armstrong



Image Credit: Kasap Karmacharya - VIII

Introduction

Exploration has always been the defining character of us humans. Trying to go beyond our existing realm has always captured our imagination. Thus this has led to us travelling and exploring every bit and corner of our planet and fearing even beyond it, to the moon. Now, our next destination seems to be Mars, which will be our toughest and ambitious expedition yet. We have already sent probes and satellites to the planet but our biggest challenge will be to send humans there and establish a permanent colony.

Justification

Travelling to such a vast distance to an unknown world isn't easy but it is still important to us. Colonising mars would be to fulfil the destiny of humans. Mars exploration would satisfy human curiosity and would push our learning about the planet even further. Similarly, establishing a permanent colony elsewhere would save the human species from a mass extinction event on earth. Not only that

but Mars hosts an abundance of untouched natural resources which would be very vital to humans for further space exploration and advancing its foothold on mars.

Difficulties for establishing a colony

Establishing a permanent colony on mars hasn't been called the most ambitious project of humans for no reason. Colonising Mars would be a tough feat for humans. The first challenge proposed by Mars is its gravity. Our body is shaped by the gravity of earth and without it our body would just be a ball of meat. Unfortunately for us Mars only contains 38% of the total gravity of earth. According to wired.com in such conditions our muscles would feel great strains. Not only that but our heart and blood vessels would be deconditioned and the chances of us suffering from renal stones would greatly increase.

Similarly according to BBC the thin atmosphere of mars makes the planet more susceptible to UV rays and a weak magnetosphere causes it to be greatly threatened by solar wind. These two factors directly affect the martian soil and increase its toxicity, thus ensuring no yield on the surface. Further the electronics too face a great threat due to frequent dust storms and extremely cold temperatures due to its great distance from the sun.

Likewise the colonists would also face the problem of water, water is found at mars in only trace amounts, so astronauts would have to rely upon water processing systems and resupplies from earth.

Not only that but resupplies and transportation trips to mars would take seven months at minimum according to NASA , so addressing immediate issues of the astronauts would be impossible, thus they'll be on their own for a very long time until help comes from earth.

Astronauts will find it very hard to adapt to the Martian environment for a long time. Being far

from their home in an extra terrestrial climate and high chances of mission failures (likely causing death) is sure to put a toll on mentally and physically upon the astronauts. Hence, they'll find it challenging to overcome stress, maintain their routines as on earth, adapt to day-night martian cycles and other aspects and finally keep themselves mentally and physically sound.

How to survive on Mars ?

Surviving mars would be very hard for our colonists but it won't be completely impossible. First of all we'll have to shelter our astronauts from the harsh Martian climate. We need to develop a martian base consisting of modular capsules that'll be able to shelter the astronauts and act as a research laboratory at the same time. The capsules need to protect astronauts from the ionising radiation, unbreathable atmosphere, harsh temperatures and frequent dust storms. Next step would be to protect our equipment and astronauts from the Martian climate outside the shelter of capsules. Rovers and the suits of astronauts would face threat from electrostatic martian dust that can damage the electronics. So, they must be protected.

The settlements must be developed near the polar caps containing ice sheets so that water would be obtained easily plus water processing and recycling systems must be used to conserve water as much as possible. Food too is hard to come by in the Martian surface because of the infertile soil. So, the soil must be decontaminated and elements must be added artificial for crop growth.

Likewise to overcome mental stress and surface gravity, astronauts must maintain strict physical and mental fitness through workout routines and balanced diet. Astronauts would need to work in shifts of 2 years.

THE RIGHT TO REPAIR MOVEMENT

Shoham Pradhananga - IX "Araniko"



Image Credit: ifixit.com

What is right to repair?

When we buy any products, it can legally be considered as ours and we are able to do anything with it. Either use it or throw it. It is our right to determine the usage of the product according to our needs at the time. This is somewhat true to some lengths but the companies try to reduce that by forcing control upon our goods.

This is where the Right To Repair Movement comes in handy. Right to Repair is a concept that allows any consumer the right to repair or service the goods they own without any legal or technical restrictions. Definition aside, In a simple manner, If any electrical or even mechanical goods have any malfunction and technical problem, we tend to fix them ourselves or take them for a repair at local repair shops. Well, the companies try to seize the ability to repair by various means. For these reasons, the movement initially started with the objective to enforce laws that permits us to fix our own electronics or enable us to fix them at local independent repair shops rather than replacing them.

How it started and its ongoing

The movement can be considered to have firstly started in the year of 2012 in the USA. It began as an act to enable consumers and independent repair shops to be able to buy individual automobile parts for a quick fix. This led to various failed attempts by the activists but they were able to pass the first right to repair law for the automotive sector in 2012 at the state of Massachusetts. After just a year of applying this law, more protests emerged for the digital industry as it was growing more and more rapidly but it seemed to be ineffective as the representatives from various digital companies argued by putting reasons such as safety and privacy policies.

Nowadays, various companies from phone to tractor manufacturers use various business models in order to achieve a hefty profit. This leads to various revolting strategies such as Planned obsolescence. It is a business model or policy of producing goods that rapidly become obsolete and require replacing. Multiple large scale businesses have been known to use this strategy but one company in particular was caught red handed. In the year of 2017, Apple was caught slowing their older models as suggested by the evidence, in order to force the users to buy better and more expensive ones. This led to apple representatives appearing at court and paying a hefty amount to settle the debates. Similarly, Microsoft has also decided to make their newer models of laptop to be more reliable and repairable compared to their old counterparts starting from 2022.

Regulations, Laws and Steps taken by manufacturers

Due to these revolting acts by manufacturers, It has been harming both the environment and small scale businesses. When the companies do not provide components for a repair, people are forced to buy new products. This inturn leads to repair shops going out of business as the lack of customers. Not only that, producing electronic and mechanical goods takes more material and emits higher amounts of CO₂. As of now, more concern has been raised for the

environment. Hence, resulting in more policies and various decisions by manufacturers. For example, Apple has a new campaign in which local repair shops can certify themselves as “Apple certified” repair shops by paying fees. This grants them access to training, official documentation, manuals and parts straight from Apple. A similar approach can be seen taken by the automobile manufacturer Tesla.

As for laws, The Digital Fair Repair Act has been introduced in the state of New York on the date of 06/17/2021. Similarly, the UAE has approved some selected recommendations. On the date of July 2021, The British Government passed the right to repair law, The Government of France also introduced a new score system in February of 2021. These policies prohibit the companies from taking a monopolistic approach towards their market.

Is this movement as good as we see it?

The Right to Repair movement may be seen as a priority by many as it benefits us and our environment, but it also has various flaws. As the years pass by, the technology is getting better and smaller. At this point, it has been largely optimised and closely integrated. A single chip of a digital device holds all the capabilities needed to operate a computer. This creates various risks for the users who tend to repair their devices at homes using simple tools. Not only that, they are more vulnerable as people tend to use third party pirated software. This has various privacy and security related issues. Hopefully, companies will start manufacturing reliable and easy to fix goods in the near future.

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SAVE SOIL

Sonsa Gautam - IX “Janak”



Image Credit: earthandhuman.org

Soil is an essential component of life and the source of origin. On the earth's surface, the soil is a mixture of rough, medium, and fine organic and inorganic mixed particles. Our soil is rapidly turning infertile due to poor soil quality. We should start to think about its damaging impacts on agriculture, the environment, and future generations. In our opinion, the soil is a minor consideration. But like water, the soil must be conserved because it can't be depleted once it is spoiled. It is impossible to produce rich soil. We can save our soil if we work hard in the correct direction.

Jagadish Vasudev, also known as sadhguru is a spiritual leader on a mission to restore the foundation of life on earth through his save soil campaign. In this effort, he is determined to mobilise 4 billion people to pressure their governments to give more attention to soil health. It is largely overlooked in environmental policymaking, despite being the basis for all of our fundamental needs. He also launched a global movement to address the soil crisis by bringing together people from around the world to stand up for soil. He said Soil is not our property, it has come to us as a legacy and we must pass it on to future generations.

Effects of soil degradation

Soil is the largest living entity in the universe, supporting trillions of living beings and microorganisms. Top scientists in the world admit that they know less than 1% of species found in soil. Only 40-50 years' worth of soil is left for agriculture. If all organic content from the soil is lost, the soil is as good as sand. At least a minimum of 3% organic content should be left in the soil to grow food. The world is facing soil extinction today. What you got in 1920 from one orange, in 2020, you have to eat eight oranges to get the same nutrients. The average mineral content of calcium, magnesium, and iron in cabbage, lettuce, tomatoes, and spinach has dropped 80-90% between 1914 and 2018 in the US.

Why is soil essential?

Soil is an essential component of our life. We're all descended from this soil. According to the United Nations on Climate Change's and Land study, soil helps to create a cleaner climate by absorbing about 1/3 of the carbon dioxide released by many Industries. Food, energy, and nutrients are all provided by soils, which help to meet people's needs.

Soil conservation can aid in the reduction of food insecurity and the development of healthy communities. Soil also aids in the protection of the environment and the development of a healthy natural ecosystem. Soil also provides a host of crucial services for both people and the planet. It puts food on our plates, purifies our water, and protects us against drought and flooding. Soil is a key to tackling climate change as it captures and stores vast amounts of carbon.

Soil also plays an important role in agriculture. Agriculture is the only essential industry but farming has one of the biggest impacts on soil health. Intensive farming eliminates species living within the soil- species that give soil its fertility. How we farm today is destroying our ability to feed the planet in the future. Therefore, there is no food security without healthy soils.

How can soil be conserved?

Crop rotation, cover crops, conservation tillage, and planted windbreaks are examples of soil conservation techniques that affect both erosion and fertility. When leaves fall, they decompose and become part of the soil. Soil conservation has been done by farmers for centuries. In Europe, rules like the Common Agricultural Policy encourage farmers to use the best management techniques including decreased tillage, winter cover crops, plant residues, and grass margins to improve soil conservation. To remedy the erosion problem, more political and economic effort is required.

A simple governance issue is how we value land, which can be altered through cultural adaptation. We should rarely think about the perspective of soil destruction in human life. numerous factories have been polluting the air, water, and now even land resources. resources are being polluted day by day. Crops, plants, and seeds are not growing properly due to contamination in the soil. It is hard to grow healthy crops in that contaminated soil. It is hard to pass daily life eating unhealthy foods. It has become a global issue. We must be concerned about such issues and run various programs that support saving soil. Soil is the ultimate source of food and shelter.

Conclusion

Therefore, we can advocate for policies across all nations toward soil restoration and raise awareness of this imminent crisis among 3.5 billion people to garner their support for these policies. Ensuring that our soil is rich and fertile is key to avoiding an ecological disaster.

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SOMALIA: FAMINE AND CATASTROPHIC HUNGER

Akanshya Luitel- VIII “Parijat”

“Catastrophic hunger levels in Somalia have left more than 513,000 children at the risk of dying, 173,000 more than during the 2011 famine, UN humanitarian warned on Tuesday.”



Image Credit: theguardian.com

The UN Children’s Fund UNICEF, the World Food Programme (WFP), and Food and Agriculture Organisation (FAO) called for an immediate funding program to help the vulnerable communities hit by drought, high food prices, and conflict. The FAO stated that the situation would get worse if no action was taken. The UN agency said that the data on famine and starvation could be more than the recorded one. They even stated that drought deaths are increasing and it is harder to reach rural areas.

During the famine of 2011, 340,000 children required treatment for severe malnutrition which is 513,000 today stated spokesperson James Elder. It’s a nightmare we have not seen this century. According to the analysis of FAO, approximately 6.7 people across Somalia likely endure high levels of acute food insecurity between October and December this year.

The situation has worsened and the herders are now watching their livestock drop dead like

flies. The children in Somalia are already dying due to famine and starvation. Most of the stabilisation centres are full and the critically-ill children are taking treatment on the floor. The situation is at its peak in rural areas. Children who are severely malnourished are more likely to die from diarrhoea, measles, and kwashiorkor.

To prevent famine greater funding must be arranged to help the vulnerable communities and severely malnourished children by providing lifesaving food that will make them strong enough to fight diseases and stay healthy as healthier youngsters. The UN's response involves reaching the most vulnerable communities to prevent mass displacement before famine has been declared and to help to promote a faster recovery. According to FAO, human assistance has been increasing which has helped an average of 3.1 million people per month between April and June 2022 and 4.5 million people per month between July and September 2022. In June, UNICEF reported that 386,000 children aged six to 59 months needed treatment for severe acute malnutrition.

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WILL WE EVER HAVE FUSION POWER?

Prestha Bhattarai - IX "Araniko"

The joke about fusion energy is that it's 30 years away and always will be. But significant recent advances in fusion science and technology could potentially put the first fusion power on the grid as soon as the 2040s.

We have been studying nuclear fusion for over many years. In 1920, Arthur Eddington became the first person to suggest that the source of the sun's energy was nuclear fusion,

and in 1939 his theory was proven by Hans Bethe. Ever since, the possibility of fusion as a power source has been incredibly exciting. It was not long before journalists and pulp fiction authors were predicting a time, surely not far away, when the world would be powered by simple fusion reactors requiring nothing more than abundant hydrogen from water.



Image Credit: schitechdaily.com

So how can fusion be conducted on earth? There are many projects going on for conducting nuclear fusion on earth. The best project for the process of nuclear fusion are:

Tokamak Energy

First proposed in 1950, then pioneered in the USSR, this is a machine that confines a plasma using magnetic fields in a donut shape that scientists call a torus. Fusion energy scientists believe that tokamaks are the leading plasma confinement concept for future fusion power plants.

ICF

The other fusion approach is ICF, which was proposed by John Nuckolls in 1960. In 1965, the Lawrence Livermore National Laboratory (LLNL) developed the 12-beam "4 Pi laser", which delivered energy to the target in five nanosecond pulses.

Magnetised Target Fusion

Magnetised Target Fusion (MTF) is a possible pathway to thermonuclear fusion different from both magnetic fusion and inertial

confinement fusion. An imploding cylindrical metal liner compresses a preheated and magnetised plasma configuration until thermonuclear conditions are achieved.



Image Credit: world.mamoet.com

Field-Reversed Configuration (FRC)

A field-reversed configuration (FRC) is a type of plasma device studied as a means of producing nuclear fusion. It confines a plasma on closed magnetic field lines without a central penetration. In an FRC, the plasma has the form of a self-stable torus, similar to a smoke ring.

There are many other projects like hybrid fusion, JET, ITER, EAST etc which makes nuclear fusion possible on the earth. According to various estimations, after 20 years, nuclear fusion may be possible on the earth. The fusion needs to be scaled up, which can also cause delays over many decades. Scientists are creating more energies to create them. In about the 2030s to 2040s this would be possible.

If this works, it would represent a long-term, sustainable, economic and safe energy source for electricity generation.

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WHY YOU SHOULD CARE ABOUT "THE INSECT CRISIS"

Aayasha Bhattarai - VIII "Bhrikuti"

The world is facing an insect crisis. Many terrestrial arthropods (insects, spiders and related creepy crawlies) are declining rapidly and some species have gone extinct. This alarming state of affairs has been commonly referred to as the "Insect Apocalypse" or the "Insect Armageddon". Arthropods appear prominently in almost every ecosystem on Earth. They occupy virtually every niche from icy mountain peaks to hot tropical rainforests, from marine intertidal zones to acidic subsurface soil layers, from high alpine meadows to dark subterranean caves and everywhere in between. The importance of arthropods cannot be overstated—they are key pollinators, food sources for other organisms ranging from small mammals to apex predators like trout and grizzlies, distributors of seeds in forested areas, agents that control the spread of diseases such as malaria and yellow fever, decomposers that break down dead organic matter into its component parts enabling it to be re-utilized by other organisms, prey for a multitude of other animals ranging from shrews up to humans - you get the idea!



Image credit: smh.com.au

What's Causing The Insect Apocalypse?

The reasons for the decline of arthropod populations are many and varied. The current state of scientific knowledge doesn't allow us to

pin down a single cause that is responsible for the current insect decline. Some of the causes are undoubtedly natural and cyclical in nature, whereas others are likely due to human activities.

Habitat destruction

Arthropods occupy every type of terrestrial ecosystem from tropical rainforests to arctic tundra and everything in between. Unfortunately, arthropods are especially sensitive to habitat fragmentation. Insect populations that are isolated in small patches of land are highly vulnerable to local extinction. Fragmented areas of land are also extremely prone to invasive species.

Insecticides

Insecticides and insecticides resistance are huge problems. Pesticides are designed to kill insects, so it should be no surprise that they're also killing arthropods. Unfortunately, pesticides also kill other animals (including birds, mammals and other vertebrates), as well as having a negative impact on the environment in general.

Climate change

Climate change is affecting arthropods in a number of ways. Rising temperatures and changing rainfall patterns have altered the timing of arthropod life cycles. Some species have shifted their geographic distributions, others have shifted to higher altitudes, and still others have shifted to higher latitudes.

Other human-related factors

Other factors that have taken a toll on arthropod populations include the introduction of invasive species, changes in land use, and the spread of pathogens. Unfortunately, arthropods have a very small chance of surviving a pandemic.

Why Should We Care About Insects?

Insects are incredibly important in our everyday lives. Insects make up around 80% of all life on our planet. No other animal group comes even remotely close to the number of

species found in the insects. Insects pollinate more than 80% of all the plants on Earth, including many agricultural crops such as coffee, cocoa, avocados, dates, apples, pears, almonds, peaches, strawberries and many more. Insects are an important food source for many birds and mammals. Some insects, like certain species of ants, termites and beetles, also feed on other insects. Insects are an important component of many ecosystems and are used as bio-indicators for the health of the environment. Insects are also used in scientific research. For example, fruit flies are often used in genetics experiments, and bees are used to study the impact of various chemicals on insect physiology.

How Big Is The Problem?

Since the start of the 21st century, the abundance of arthropods in general, and insects in particular, has been in steady decline. One study has shown that this decline dates back as far as the 1960s. The decline of arthropods is happening all over the planet, in tropical forests, temperate forests, deserts, grasslands, tundra, and in aquatic ecosystems. It's happening night and day, in the shade and in direct sunlight. It has been recorded in areas of high human population density, and it has been recorded in areas of low human population density. The decline in arthropod abundance has been especially dramatic in tropical areas. Tropical forests have experienced a 90% decline in insect abundance since the 1970s. It is believed that this decline is linked to climate change.

Why This Matters And What You Can Do About It

Insects are an essential part of healthy ecosystems, and when they disappear, it leads to a cascading effect of other species disappearing as well. The decline of insect species can result in a loss of food for other species, changes in the reproduction of plants that rely on insects for pollination, and the spread of pathogens that thrive in the absence of insect populations.

In addition, the commercial and aesthetic value of insects is significant. Insects are used in research, as food, as feed for livestock, in biodegradable products, and in cosmetics. The decline of insect species could have a significant impact on these industries. The decline of arthropods has been called the “Insect Armageddon” or “Insect Apocalypse” for a reason. If this trend continues, it will have huge implications for our society. The decline of insects could have a significant impact on the food supply, water filtration, soil quality and many other aspects of our everyday lives.

If you are concerned about this issue, there are a few things that you can do to help out. Reduce your use of pesticides, recycle paper, unplug electrical items when they’re not in use, and buy products that use sustainable, non-toxic ingredients.

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THE WORLD IS BECOMING A GLOBAL VILLAGE

Aayusha Gora - VIII “Bhrikuti”



Image credit: medium.com

Global village describes the phenomenon of the entire world becoming more interconnected as the result of the propagation of media technologies throughout the world. Today we are witnessing the accelerated growth of social media, the mobile internet and other digital technologies that are making the world a global

village by bringing us closer to one another. People in different parts of the world can now share their thoughts and feelings in real time, get connected with friends, family and even strangers who share common interests and ideas, and even organise virtual meet-ups or events with ease from their homes. As a result, people who might not have had such opportunities in earlier decades can now find new ways to express themselves and connect with others on a global scale.

Understanding The Good and the Bad of a Global Village

A village is a small human settlement or community that is populated by a tribe or a community. This can be a good thing since it highlights the importance of community and belonging to a specific place. Typically, villages are rural settlements, but this definition has become less clear with the increased importance of urban areas and cities. Villages are often less connected to state and national economies as compared to larger towns or cities. The word “global” implies that something is worldwide or universally applicable. In economic terms, it means trade, the exchange of goods and services across international boundaries. The world has become globalised as a result of an increase in trade, investment, travel, and communications across countries. This is why the world is a village and this is also the reason why the world is becoming a global village.

The Bad

Health, safety and the environment are common areas where the bad impacts of a global village can be seen. The rise in internet addiction has been linked to mental health issues such as depression, anxiety and even suicide. Cyberbullying, fake news and privacy breaches are other examples of the bad impacts of a global village. The spread of infectious diseases due to the movement of people across the world can amplify the bad consequences of a global village. The global outbreak of SARS in 2003, swine flu in 2009

and Zika in 2016 are some examples of how diseases can go global. The spread of insects, pests and other invasive species can have devastating effects on crops, ecosystems and biodiversity. Increased CO₂ emissions and pollution due to increased travel and trade can put the future of our planet at risk.

The Good

Education, health and the environment are fields where the good impacts of a global village can be seen. People who were denied access to education by the lack of nearby institutions or universities can now access courses from top universities from their homes. The same goes for healthcare where distance doesn't matter anymore to get expert medical advice. The spread of democratic values and cultures can be seen as a good consequence of a global village. The virtual global village is connecting people of different cultures and religions to one another, making them realise that they are not alone, and helping them understand the similarities they share.

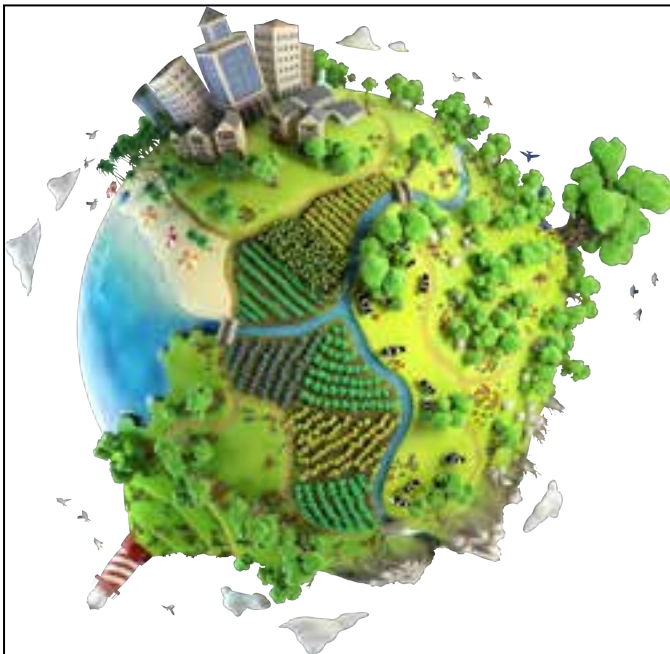


Image Credit: pngwing.com

How to Make the World a Global Village a Good Thing?

To make the world a global village a good thing, we need to recognize the importance of protecting our environment and biodiversity, building a healthy society and promoting

sustainable development. We also need to recognize the importance of protecting privacy and dealing with issues of mental health such as internet addiction, cyberbullying, and fake news. We must also take the responsibility to create and exchange positive content online, and be helpful and inclusive online to make the world a global village a good thing. We must also recognize and appreciate that the world is made up of unique and diverse cultures, religions and traditions, and understand that we are not alone. Globalisation is not a one-way street, and it is not about a select few or countries dominating the others. Rather it is about us coming together, respecting one another and making the world a better place to live in.

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SURGE IN THE POPULATION OF TIGERS IN NEPAL

Dikshya Poudel - X “Pyramid”



Image credit: The Kathmandu Post

The symbolization of the tiger stands for strength, military and royalty. They are regarded as endangered species. Tigers are apex predators and their population is interrelated with the health of the ecosystem and the forests. As a whole, it is a challenge for Wildlife Conservation to manage its population accordingly.

Now, Nepal has easily exceeded commitment to increase the number of tigers in Nepal. According to the census of 2018, there were a total 235 tigers in Nepal. As per the record, Chitwan National Park had 93 tigers, Bardia National Park had 87 tigers, Sukla Panta National Park had 16 tigers, Banke National Park had 21 tigers and Parsa National Park had 18 tigers. From 121 tigers in 2010 BS, 198 in 2013 BS and 235 in 2018 BS, now the number of tigers has increased to 355 in 2022 BS. According to the census of 2022, Chitwan National Park has 128 tigers, Banke National Park has 25 tigers, Sukla Panta National Park has 36 tigers and Parsa National Park has 41 tigers. Thus, the latest population of tigers in Nepal has nearly tripled compared to data collected in 2010.

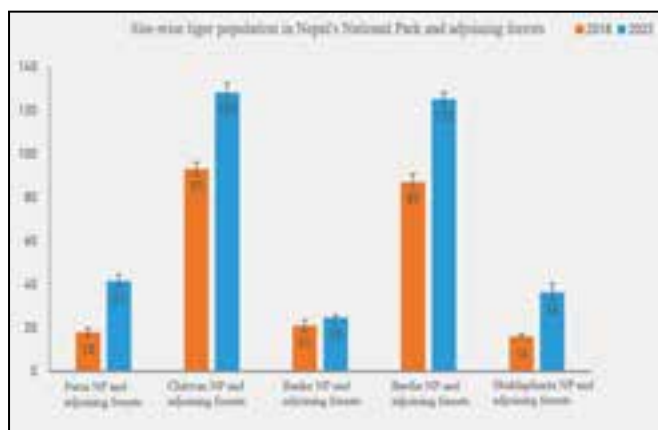


Image Credit: ntnc.org.np

In order to save tigers, the periodic assessments of tigers are being conducted in the time interval of every four years since 2009. After the 2010 declaration to save tigers, Nepal has been taking important initiatives for achieving the goal of increasing the number of tigers in the country. During this period, additional habitats for tigers have been secured by establishing Banke National Park and extending Parsa National Park. The habitat connectivity has been improved, critical corridors have been restored for facilitating safe passage, anti-poaching activities have been emphasised and genetic dispersal of tigers following a landscape level approach has allowed the movement of tigers not just within the protected areas of Nepal but also

facilitating trans boundary movement of tigers between Nepal and India.

However the success of Nepal to be on the tract to become the first of the world countries to nearly triple the population of tiger has raised a concern that if the population of tiger increases in the same pace and if it approaches the limit of what a country's protected areas can host then it would lead the situation of human-tiger conflict. This may raise a serious issue in human settlement in near future. So, Wildlife Conservation has to interpret this issue too.

Tigers are regarded as large predators which are at the apex of the food chain. They play a key role in maintaining a healthy ecosystem. They regulate the population of wild ungulates and thereby help in maintaining the balance of herbivores in the forest. Therefore, the presence of tigers in the forest is regarded as the maintenance of a healthy ecosystem. The extinction of these predators may disturb the whole food chain and ecosystem. Thus, the population of tigers is to be maintained throughout the world in such a way that it neither disturbs the human settlement by rapidly increasing nor affects the ecosystem and food chain by rapidly decreasing.

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DISPROVAL OF BIG BANG?

Bishesh Shrestha - IX "Janak"

The Big Bang Theory is an event that describes how the universe expanded from an initial state of high density and temperature. Different types of cosmological models of big bang theory explain the evolution of the universe from the earliest known periods

through its following large elements.

Why do we believe the Big Bang ever happened?

The reason why people believe that the Big Bang happened is that this theory was mathematically and theoretically proven by one of the biggest mathematicians and physicians like Albert Einstein, Alexander Friedman and Stephen Hawking.



Image Source: *futurecdn.net*

The Big Bang is totally not disproved by the James Webb Telescope. Despite this, an article about a pseudoscientific theory went viral in August which mistook quotes from an astrophysicist to create a false story that the Big Bang didn't happen. The James Webb Telescope has only been conducting science operations for a few months although it has already made some iconic discoveries, including the detection of what could be some of the earliest galaxies ever seen that existed 200 million years after the Big Bang. Although issues with registering the instruments might mean that some of these galaxies are not as distant as first thought. James Webb Telescope has almost certainly broken the record with some of them.

How can Big Bang Theory be disproved?

Scientific theories are never disproved. They are just replaced by theories that explain more of the observable surroundings around us. Similarly, The Big Bang will be "disproved" (replaced) if someone comes up with a theory that explains not only all the recent observations that the big bang explains but

even some that it doesn't.

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ANNUNAKI

Anukaran Gaire - IX "Janak"

"Just imagine if we were made by alien gods but not developed from monkeys."



Image credit : *myufocredit.it*

According to how we are taught in our childhood, we all think that we were developed from the monkeys (apes). But let us imagine, how can we develop from a different organism from us. Yes, there may be some similar features between us and them. It doesn't mean that we have developed from them. Yes, it may be the truth but it is the nature of the people to find some fault in people's theory.



Image Credit: *wikipedia.org*

"Why only homo sapiens survived, not other species of humans?" It is a great mystery.

According to Archaeologists, we can get the answer to these questions from the historical documents. The first use of the word annunaki was in the sumerian civilization which is one of the oldest civilizations.

According to various resources, it is said that in the year 1842, a british archaeologist Austin Henry searched for the ancient objects in Nineveh, Iraq. When digging he found several sumerian tablets. When some of the tablets were decoded. A new story of human creation was discovered.

In a series of published books, it is said that there is a planet on the outer part of the solar system named Nibiru. Its orbit is in a way that it comes inside the solar system in 3600 years. It feels similar to the newly discovered planet outside the solar system, Planet X.

A pseudo-archaeologist Erich von Däniken claimed that on the prehistoric Earth, extraterrestrials (ancient astronauts) had visited. He also explains the origin of that relation with response to the alien race and he even provided the interpretations of the Old Testament and Sumerian texts as evidence.

An author Zecharia Sitchin claimed in his 1976 book, 'The Twelfth Planet.' that Annunaki were just an advanced humanoid extraterrestrial species from the undiscovered planet Nibiru, who needed gold to save their planet.



Image credit: wikipedia.org

So, they constructed the base of operations for mining gold when they discovered that this planet is rich in precious metals. It is also said

that Annunaki hybridised several organisms with their own DNA. And one of the hybridised organisms was Homo erectus, who had the capacity of vitro fertilisation. They provide this feature to other organisms as well, but they wanted human to be their slaves species of miners.

But due to melting of Antarctic glaciers, a Great flood was caused which destroyed the Annunaki's base on the Earth which forced them to temporarily leave the Earth. But when the flood stopped they returned and taught humans farming so they could get their own food and not die of hunger.

Ronald H. Fitze writes that, according to Stichin, "The Pyramids and almost all other ancient monumental structures from the ancient world which scientist explains were impossible to build without very highly advanced technologies were Built by Anunnaki."

It depends upon us whether we believe it or not. But what if this was the real Truth and the thing we were taught was wrong.

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STONE AGE TO 21ST CENTURY: A DYNAMIC WORLD

Riya Suwal - IX "Janak"

When talking about the long history of humans we are mostly limited only to the species Homo sapiens who developed from the apes. But the long history of the earth shares that Homo sapiens were not the only humans that existed. Yet still we are the only living humans belonging to the primates. Humans started to exist millions of years ago but the easy lifestyle

that we are enjoying does not even cover 0.01% of the history.

According to research shared by Britannica, the connection between humans and apes was broken about 6 to 7 million years ago in Africa. By the end of this bond humans found a different identity of themselves in the wild.



Image Credit: *gettyimages.com*

An article published by human origins also talked about this change where they posted that the main features that distinguish humans from the apes were becoming bipedal, development of tools, control of fire, increase in the brain size and the ability to control other species.



Image Credit: *coyau*

Humans practised being bipedal since about 6 billion years ago and by 4 billion years ago humans were capable of walking upright most of the time but still could climb above the trees. This characteristic gave them a special advantage to survive in diverse habitats.

Again by 2.6 million years ago early humans used the earliest tools for survival such as stone flakes.

In the next age, almost 800 thousand years ago humans learned to control fire. This skill led to a fundamental change in human diet through cooking. Early humans didn't only change their diet as they learned to control fire but also they socialised, comforted each other, shared food and information and saved themselves from the predators using the tool 'fire'. The skill to restrain the fire also helped to make the winters warmer and summers longer. The cooked food from the fire was a lot more nutritious which guided human civilization to one of the most significant changes in history that is increase in the brain size.

Various scientists have proven that as the brain size increases, the brain can memorise finer details. The given incident also occurred in human beings around 200,000 to 800,000 years ago. During the time of dramatic climate change humans naturally increased their brain size because of which they could store more information, understand the patterns and communicate. According to Scientific American, nearly 7 million years ago, the human brain tripled its size with the most growth in the past 2 million years. They stored whatever they have learnt and passed it over their genetics to the upcoming generations. In the view that humans could communicate better, store finer details and pass the information to their offspring, humans learnt to refine the environment as per their own need.

Around 12000 years ago humans realised that they can indeed control other species and control their growth and breeding. At this age humans for the first time started the activity of animal husbandry and agriculture. This way of living was chosen over hunting because it was a more reliable way to get food and also they could preserve their food. At this age humans started to live in the communities by building small huts.

As the time went on humans learnt more and more. Our ancestors not only saved the things

they grasped by relying on genes but developed a better way to communicate that gave them a good knowledge about the matter up to the detail. By this long history humans became survival experts. They could expand knowledge quickly, preserve the knowledge gained over generations and build on past knowledge to gain even deeper. They had a detailed mental map of their territory, senses were fine-tuned to the environment, and they knew and memorised great information about plants and animals, could make complicated tools and had richer social life. These features built a community which converted to cities, then to kingdoms, to emperors, and up to the countries of today.

They firstly started by speech and developed writing. As the development went on computers were developed and the internet was in our hands just before a generation. The development of today's sophisticated life where all our needs are in our hands but are taken more or less for granted took over millions of years and thousands of generations. So before you throw your anger on the little things that happen today show your gratitude towards your ancestors who survived in the hazardous environment while improving the living standards that made the facilities reach in your hand right now.

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AFRICA SEPARATING IN TWO

Aditya Raj Raut - IX “Janak”

The appearance of a large crack in south-western Kenya of Africa has brought a new topic as well as a concern for scientists. Many scientists and geologists are exhilarated to research on this topic. The geologists, who were investigating this matter, said, “The large

crack in Africa might give birth to a new ocean and a new continent(8th continent) if the crack keeps on splitting and getting larger.” The appearance of the crack is linked with the tectonic movement and the Great Rift Valley of Africa. The East African Rift is the place where it is currently happening. The Great Rift Valley/East African Rift Valley stretches over 3,000 KM from the Gulf of Aden in the north towards Zimbabwe in the south, splitting Africa into two unequal parts; Somalian and Nubian plates. The new part will be composed of parts of Ethiopia and Somalia.



Image credit: theconversation.com

According to Cynthia Ebinger, a geophysicist at Tulane University, her research in the field focused on a giant 35 mile crack that opened up in the Ethiopian desert in 2005. The boundary of each tectonic plate located in Africa at the Afar region is spreading at different speeds, but the combined forces of these separating plates is creating what's known as a mid-ocean ridge system, where eventually a new ocean will form.

“The Gulf of Aden and the Red Sea will flood over the Afar region and into the East African Rift Valley and become a new ocean, and that of East Africa, which will get apart from Africa, will become its own separate small continent”, Ken Macdonald(Geophysicist) said.

The three plates (Arabian Plate, Nubian Plate and Somalian plate) are separating at different speeds. The African plate is moving away from

Africa at a rate of about 1 inch per year, while the two African plates are separating half an inch (0.2) inches per year, according to Macdonald.

So, it can take millions of years for Africa to get completely separated and provision of a new continent.



Image Credit: theconversation.com

For meantime, African residents who live near the rift are facing more disturbances, like; cracks in their highways, roads and cities. Still it is not entirely bad news, most of the geologists and scientists are excited about studying the whole process of separation. The study can be informative and can give some clues regarding how our present earth was formed.



Image Credit: theconversation.com

Because 300 million years ago, during the early mesozoic era, our Earth had only one supercontinent called Pangea. Later it was separated into 7 continents due to tectonic activities and other factors. So separation of Africa in two parts is a pretty good topic to

research on and clarify many hypotheses regarding formation of continents or Earth.

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THE HIDDEN PROSPECTS OF ONLINE GAMES

Purnika Joshi - IX “Janak”



Image Credit: entrepreneur.com

For most of the young adults that are into gaming, games are a way to escape from reality or have fun and entertain themselves for a moment. Games are simply defined as an activity in which a person engages in for fun, entertainment and amusement in the mentality of a typical human. This is true, but people tend to take games for granted and believe that they are just for enjoyment and offer no benefits. Yes, games are fun but they also can benefit us in numerous ways. One can get in touch with online friends, compete with various people and develop talents. Some of the benefits are discussed below:

- **Teamwork:** Many online games propound teamwork to upgrade the game status of the gamers. Teamwork is necessary for almost all of today's online games. Working together in social groups to achieve quests and fight common enemies can help gamers to enhance their collaboration skills. This shared experience can be a great way to

learn from each other. For example, in “among us”, gamers are teamed up with random people on the internet who may be crewmates or imposters. The crewmates perform tasks and try to find the imposters whilst the imposters are expected to blend in and attempt to kill all the crewmates. Therefore, both the imposters’ and crewmates’ teams are supposed to work together to win the game.

- Brain booster: online games require strategy, speed thinking and memorization. This makes our brain sharp. Many researches prove this fact. Research by the Queensland University of technology has found that games improve thinking skills in children. Games require people to follow instructions, consider their actions and respond to problems quickly. This can help us develop various thinking skills like observation, creative thinking, analysing, etc. Many games make players give attention to very minor or small details and the environment around them. Most online games want the gamers to choose the best alternative option in less time to win a game. This helps a person to increase their speed of decision making. Games make us use our understanding and brainpower more than any other activity we do in our daily life. This makes us keen.
- Learning in a fun way: Games have an educational side as well. We are learning at least something while playing online games. Online games of various types teach us about history, culture, architecture, cooking, chemistry and other numerous things. They teach us about topics we aren’t that familiar with or have been exposed to that much in school. Researches also prove that online gaming can improve our maths skills and reading. For example, when we are playing Minecraft we are

learning about rocks, ores, farming, building, etc.

- Socialise: The stereotype of a gamer is that he/she is an introvert and has an obsession towards gaming. But that's a false statement because more than 70% of game players play with others and less than 20% play alone. Studies have shown that online games have made players more friendly than that of non-gamers. Past research found that those who played more games were more likely to have good social skills and to have built better relationships with other people because of the social and collaborative component of online games. Online gaming has allowed players from all over the world to communicate with one another and work together to win a game. In the past, online games were just games that were played online without having it to be downloaded but in the present it has been more social than ever. These games have allowed people to form friendships.
- Forming a career: In the 21st century people can turn a gaming hobby into their jobs. With esports leagues and various championships popping up, people can participate in it to earn money. Young gamers can also put out their videos of them playing games on social media to gain revenue. Many gamers like Ninja, Dream, Pewdiepie, captainsparklez, etc. can be an example to those who are interested in turning their gaming into a full time career.

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