

Empowering Students' Leadership in Sustainable Development Goals (SDGs) via Innovation and Inventions (Video Competition)

Entire Collection of PPTs

4 QUALITY EDUCATION



15 LIFE ON LAND



7 AFFORDABLE AND CLEAN ENERGY





Sustainable Development Goal 4 – Quality Education

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Outline of the presentation

- What is SDGs?
- What is meant by Quality Education?
- Has SDG4 met its goals?
- How could we contribute in achieving SDG4 Quality Education?

What is SDGs?

- An agenda agreed by more than 178 countries in the world that aimed to be achieved by 2030.
- There are 17 Sustainable Development Goals altogether, and one of it is Quality Education which is SDG4.



What is Meant by Quality Education?

- Quality Education is one of the 17 goals stated in SDGs; specifically goal number 4. Frequently, it is referred as SDG4. It is actually one goal related to education which aims at “ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all”.



4 QUALITY
EDUCATION



4 QUALITY
EDUCATION



4 QUALITY
EDUCATION



4 QUALITY
EDUCATION

- By 2030, SDG4 Quality Education is targeting at achieving 7 targets. Those targets are:

SDG 4 – Education – By 2030, all learners:

Summary of Targets:



4.1 Complete free primary and secondary school for all



4.2 Access to early childhood education and care



4.3 Affordable quality technical, vocational, tertiary, and university



4.4 Skills for employment and entrepreneurship



4.5 Eliminate gender disparities and equal access



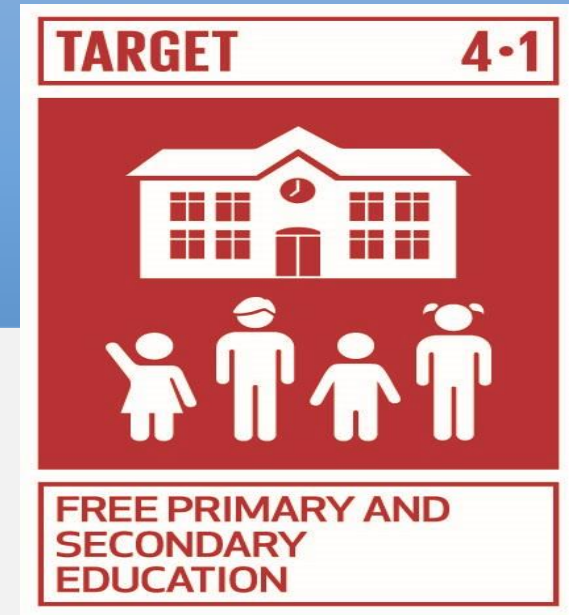
4.6 Ensure all youth and “most” adults have numeracy and literacy



4.7 Knowledge and skills for sustainable development

- Plus – equity, scholarships, increased quality teachers etc.

- All children complete free, equitable and quality primary and secondary education.



- All children have access to quality early childhood development, care and pre-primary education.



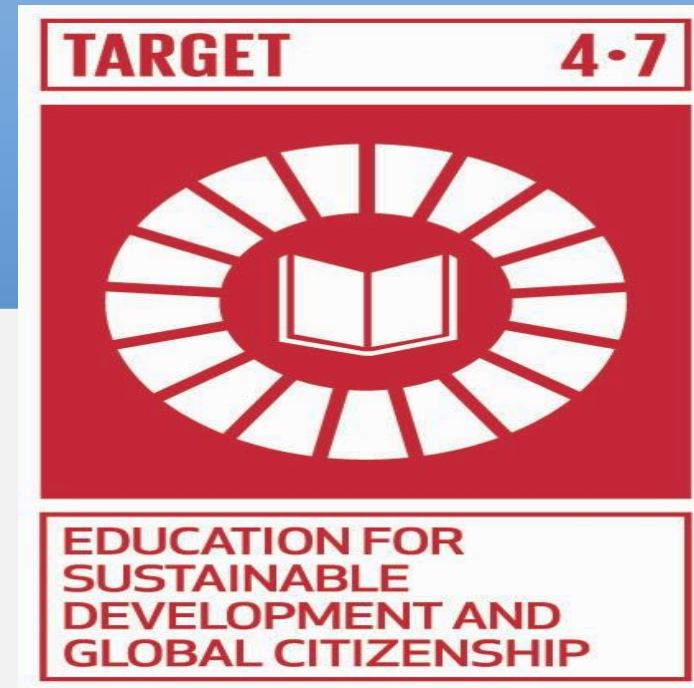
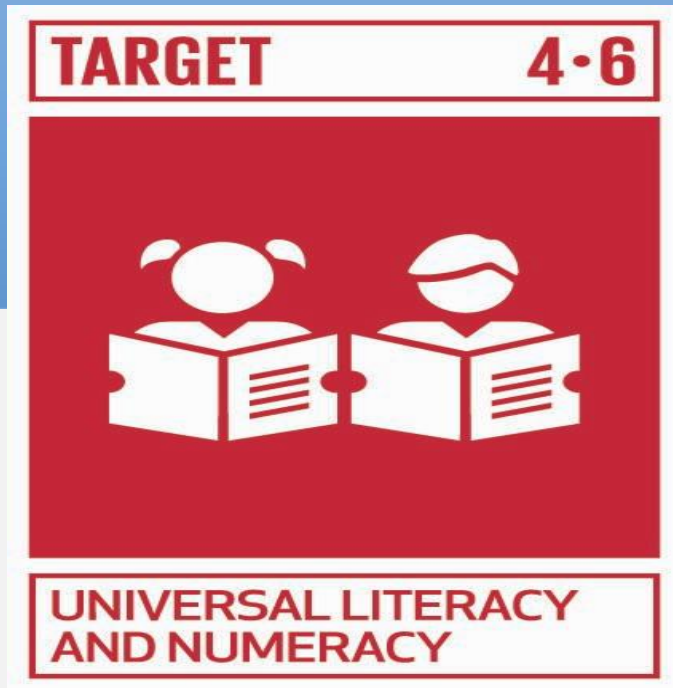
- Equal access for everyone to get affordable and quality technical, vocational and tertiary education.

- Increase the number of youth and adults for employment, decent jobs and entrepreneurship



- Eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for everyone

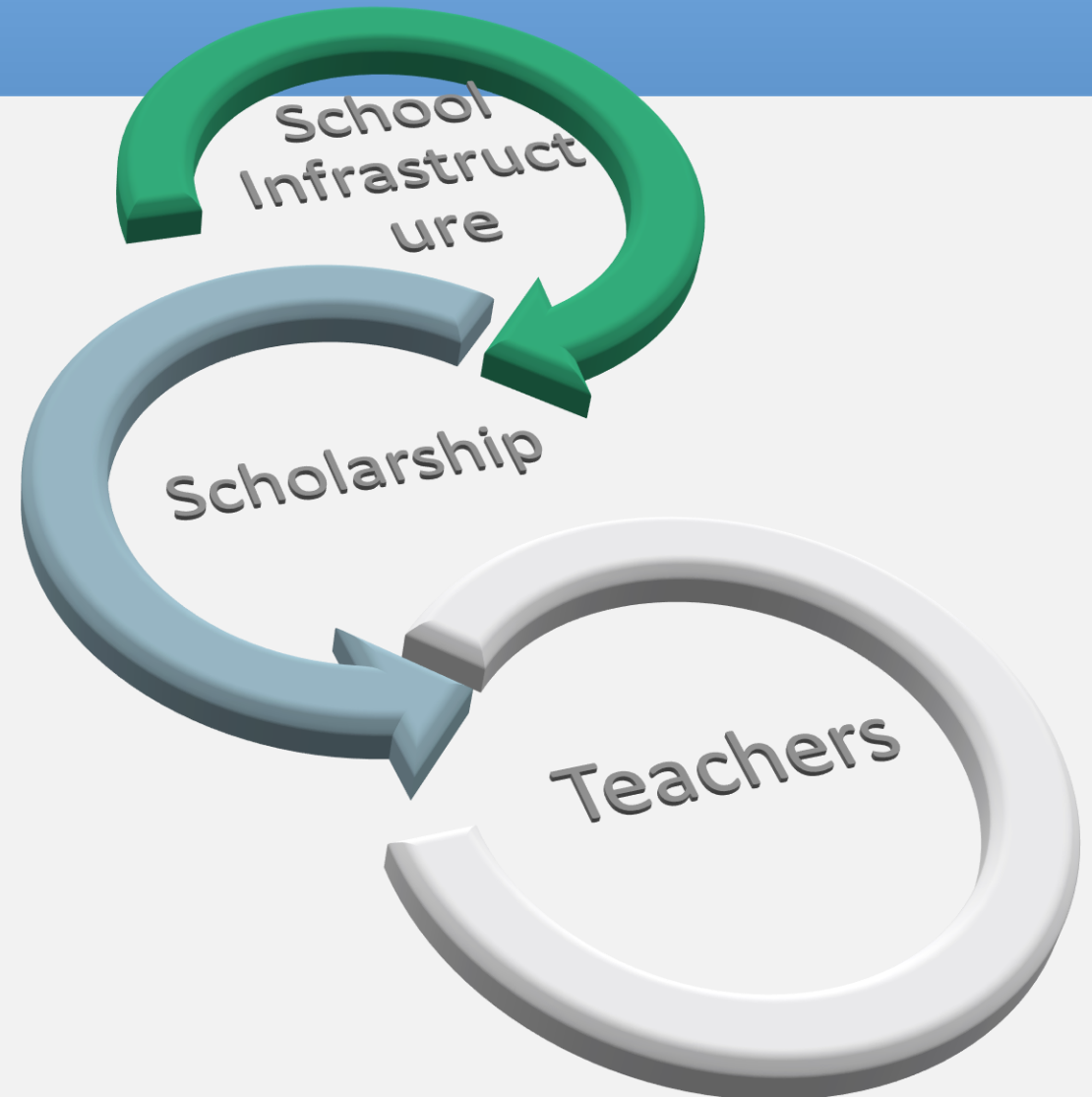




- Ensure that all youth and a substantial proportion of adults achieve literacy and numeracy
- Ensure that all learners acquire the knowledge and skills needed to promote sustainable development

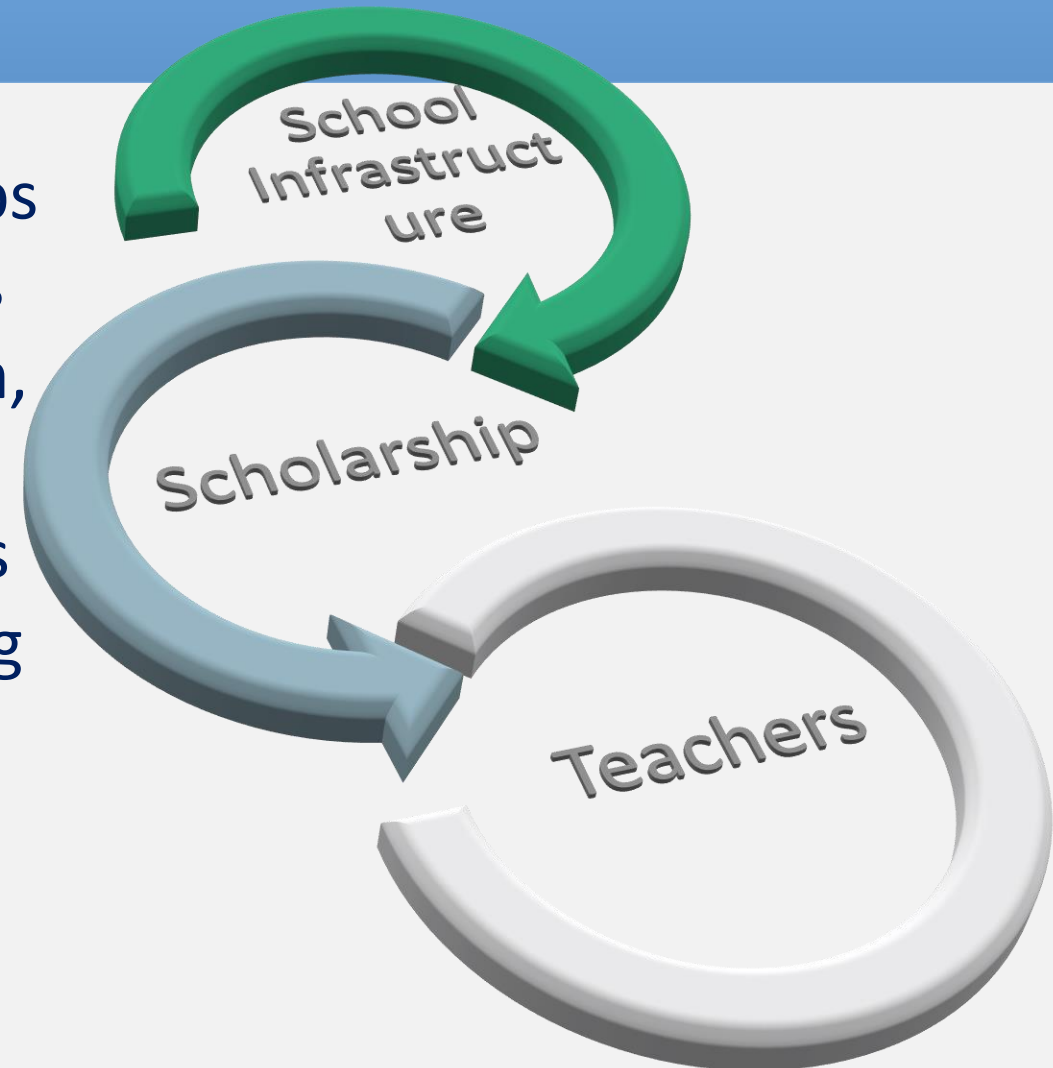
3 approaches

Build and upgrade education facilities that are child, disability and gender sensitive. Also, provide safe, non-violent, inclusive and effective learning environments for all



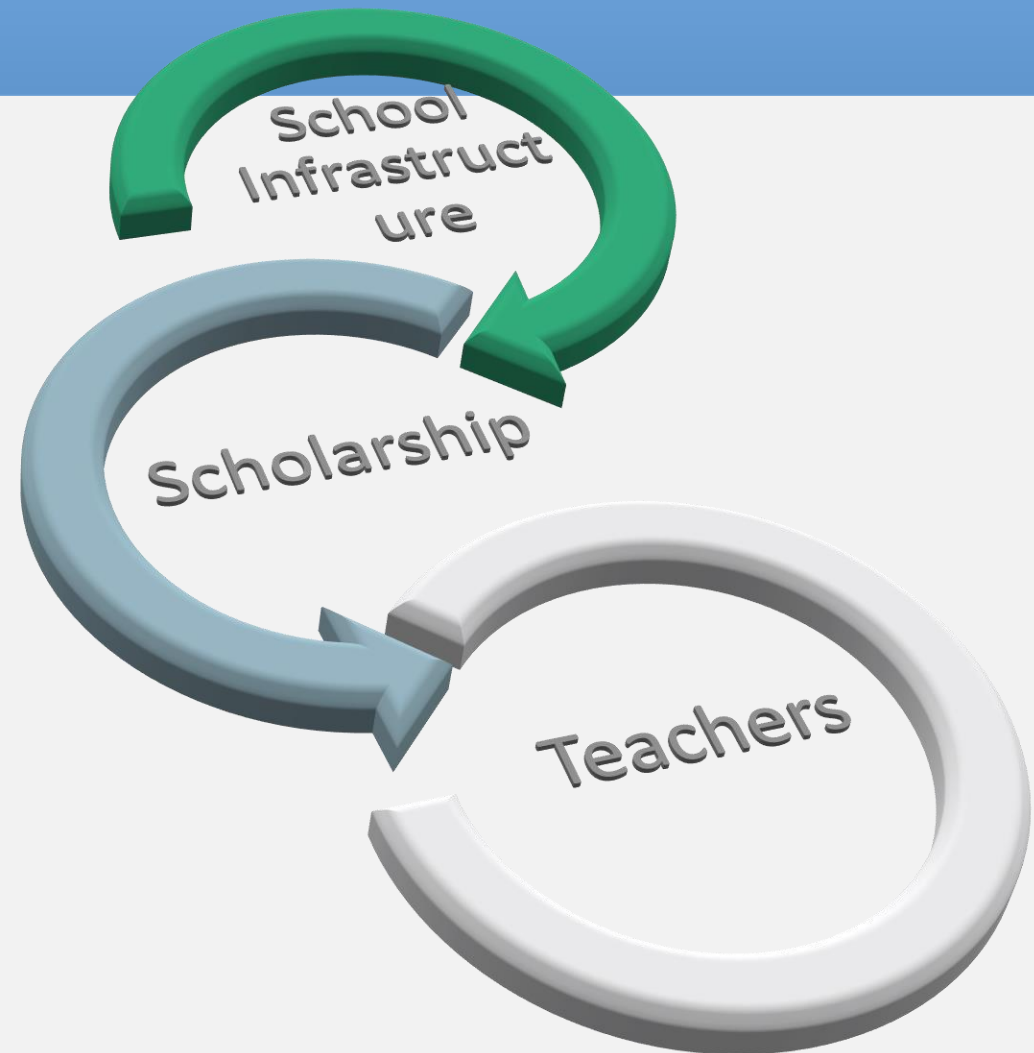
3 approaches

Expand the number of scholarships available to developing countries for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes



3 approaches

Increase the supply of
qualified teachers in
developing countries, least
developed countries and small
island developing States





Has SDG4 Met Its Goals?

- At the governmental or country level, various measures could be taken or even have been done in achieving the goals of SDG4.
- As a result, there are increase of students' enrolment rate in schools in most countries in the world.

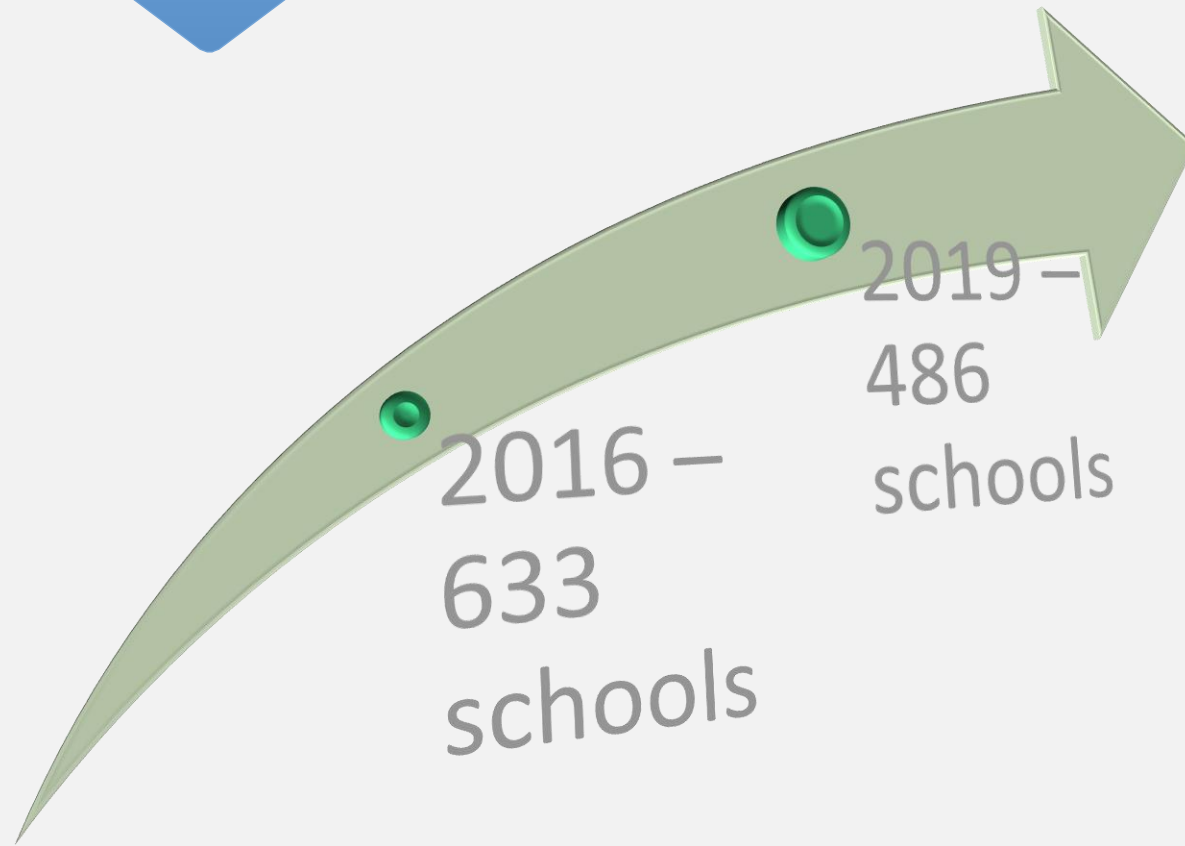
Malaysia School Enrolment Rate 2016-2018

Level of Schooling	2016	2018
Primary School	97.24	97.88
Lower Secondary	94.09	95.25
Higher Secondary	84.3	86.46
Post secondary	17.78	17.78

Source: Malaysia's Open Data Portal



- In Malaysia, in 2016 633 schools have been identified as schools with poor infrastructure. However, until 2019, 147 of these schools have been upgraded.



Source: Malaysia's Open Data Portal



How Could We Contribute in Achieving SDG4 - Quality Education?



- As a member in the school community it is our responsibility to create a safe and harmonious school climate.
- Develop positive attitude towards learning such as by being proactive, motivated students.
- Develop various skills including soft skills, technical skills and talent by actively participate in school co-curricular activities.

How could we contribute in achieving SDG4 Quality Education?

- Treat teachers and friends with respect.
- Avoid negative influences such as bullying, discrimination, gangsterism or vandalism.
- Use of schools' facilities and infrastructure with responsible and care.





Sustainable Development Goal 15 – Life on Land

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You, durians and bats

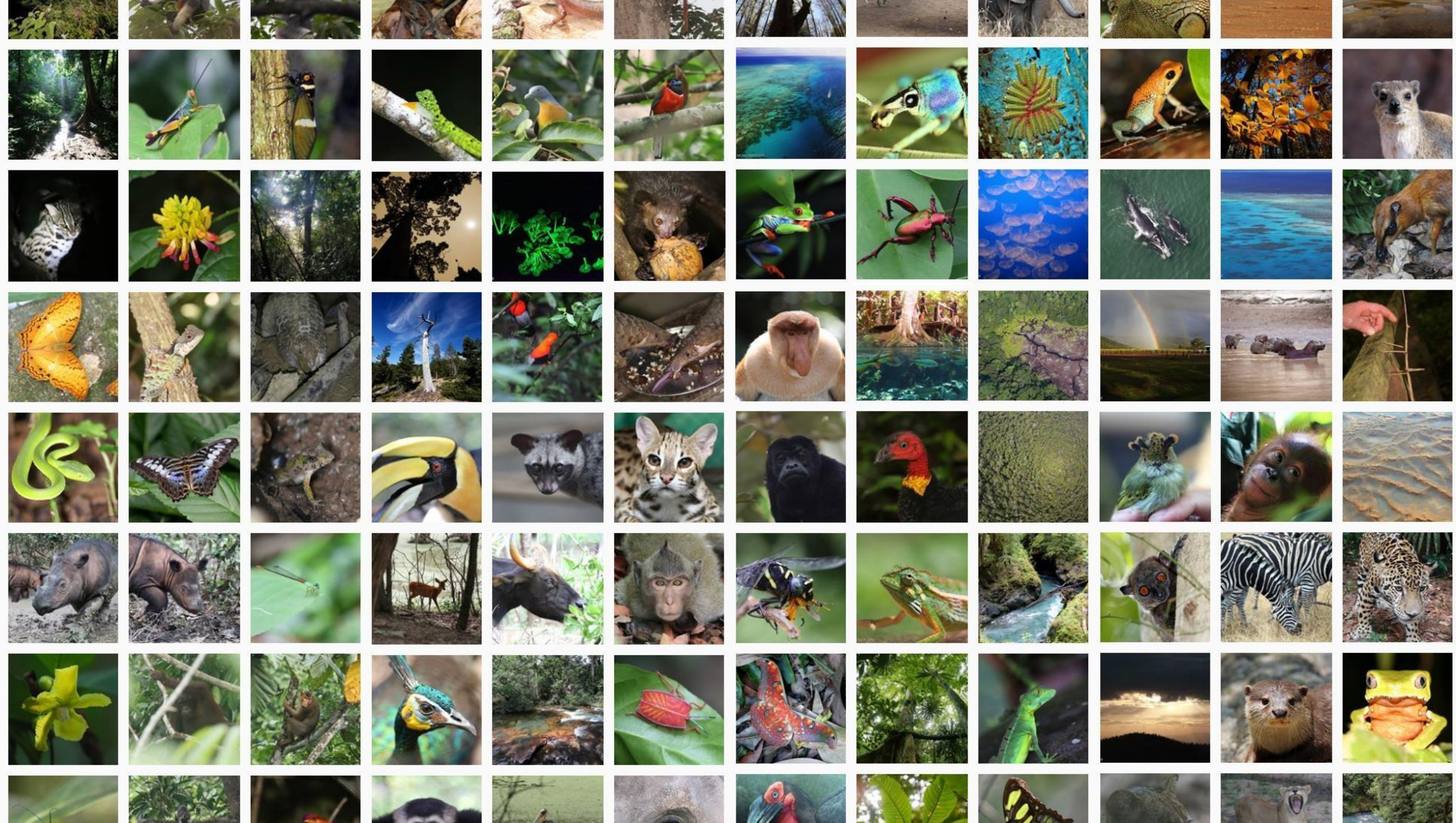


**Elephants
are forest
gardeners**



Why is
biodiversity
important for
us?

Does
biodiversity
matter?

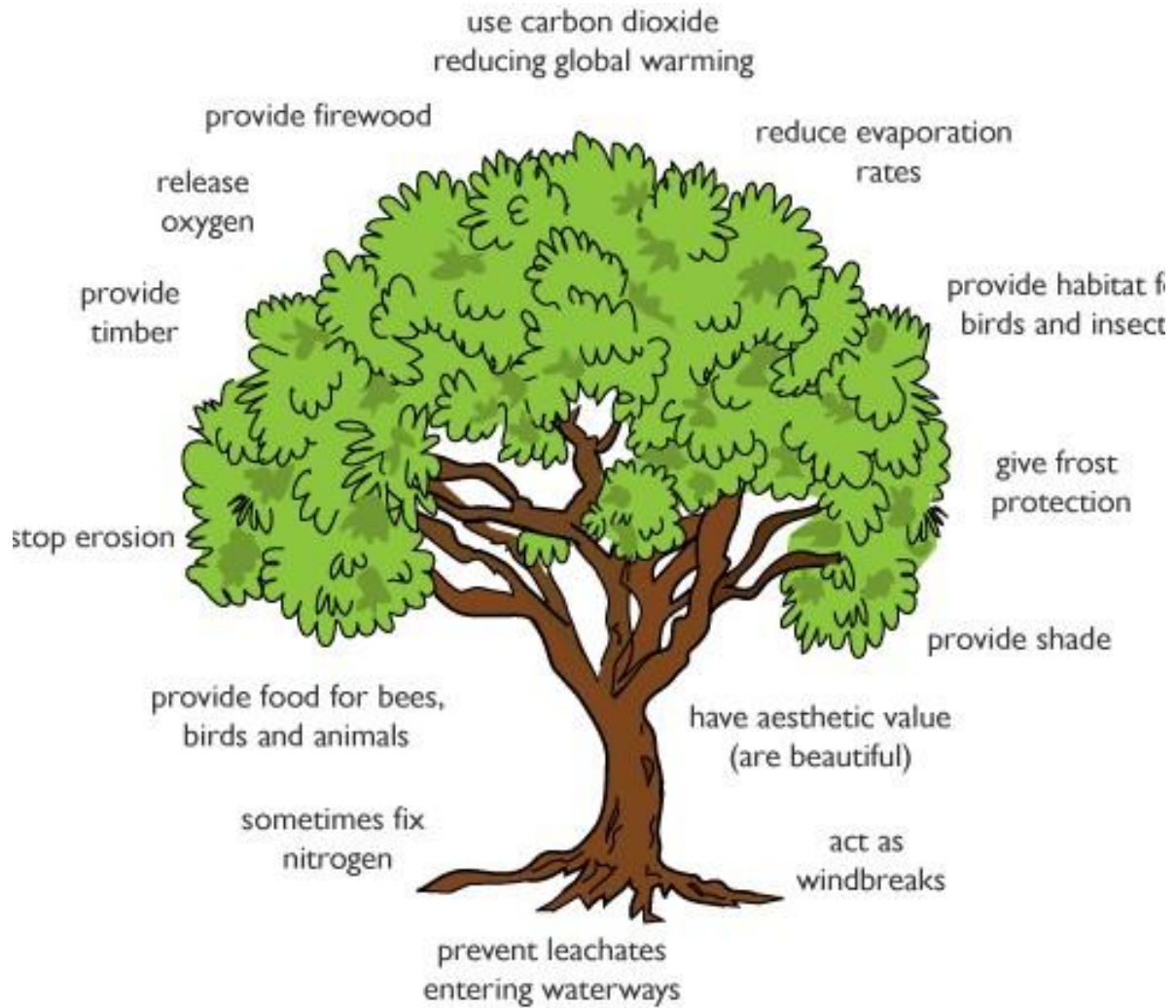




**Tapir,
elephants,
tigers**




Example of biodiversity of plants and large animals in a tropical forest ecosystem



The tree-mendous
benefits of a
single tree

Essential for human
well-being



Forest canopy and leaf litter
protect the soil surface from the
erosive power of rain

Forest trees and plants store
carbon and help slow human-
caused global climate change

Forest canopy purifies air by
filtering particulates and
providing chemical reaction sites
where pollutants are detoxified

Forests help maintain the water
cycle and stabilize local climate

Forests provide critical
habitat for plants,
animals, and microbes

Provides outdoor recreation,
education, and ecotourism

Forests provide goods
such as food, timber, and
medicines

Deep forest soils store
large volumes of water

Forest tree roots bind soils
and help prevent erosion

Forest soils purify
water, acting as a
massive filters

ECOSYSTEM SERVICES

Forest Ecosystems



crockpot chocolate lava cake

Biodiversity feeds the world

Local dishes that come
from diverse species of
plants





Forests provide much
of our medicines





Trees provide benefits to humans & many other species too





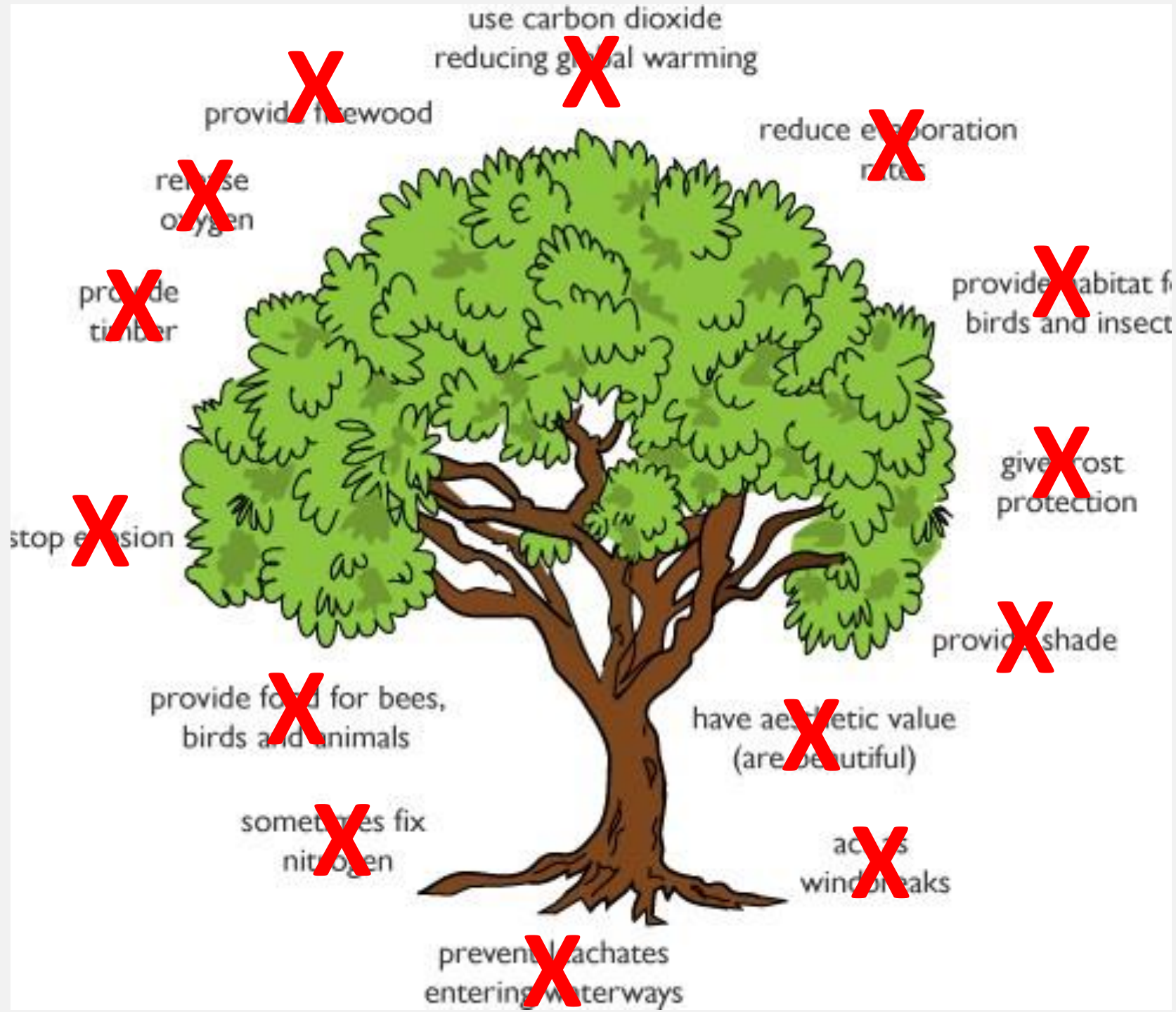
Undisturbed forest

Excessive logging!
X - Ecosystem services



Undisturbed forest
✓ - Ecosystem services

Biodiversity and all benefits that forests provide will be lost when they are removed or cleared



MILLIONS OF SPECIES TO MIMIC
SEE SOME EXAMPLES >>



Kingfisher

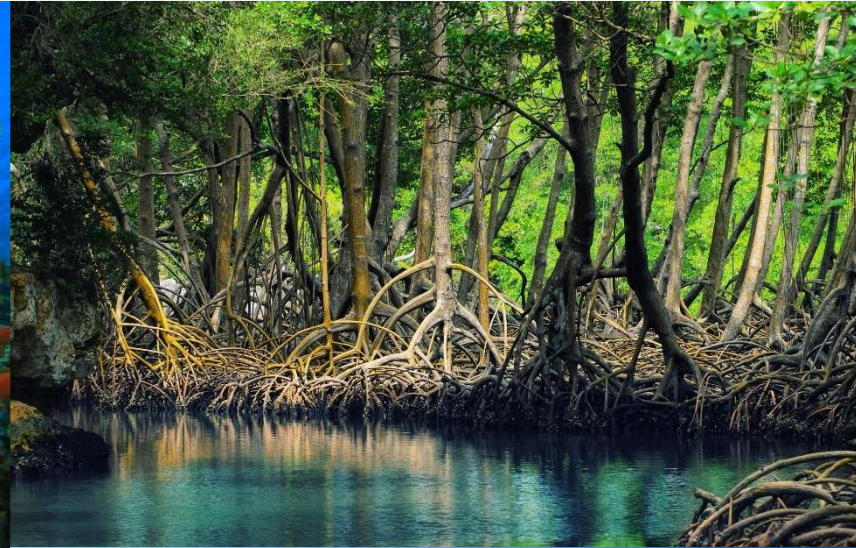
Japanese Bullet Train



The kingfisher's beak became the model for the nose cone of Japan's 500 series Shinkansen bullet train.



Ecosystem diversity

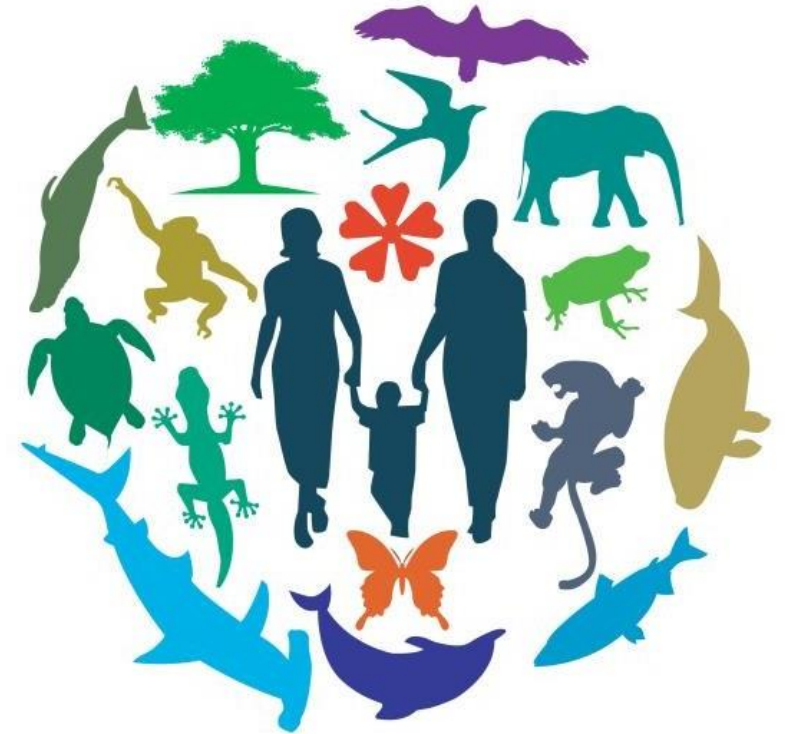




Web of life – you are connected to the rest
of planet Earth



We are all connected.



From the smallest ant to the tallest tree,
FROM THE BIRDS ROAMING THE SKIES TO THE FISH SWIMMING IN THE SEA,
Each and every creature is part of the biodiversity family.

LET'S PROTECT OUR FAMILY.

Conserve biodiversity now.

FOR MORE INFORMATION ON BIODIVERSITY CONSERVATION, LOG ON TO
www.aseanbiodiversity.org or chm.aseanbiodiversity.org

SDG15: LIFE ON LAND





- Let's protect Nature like we would protect our own family.



Sustainable Development Goal 7 – Affordable and Clean Energy

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Director,
Knowledge Transfer Centre, Universiti Sains Malaysia



7 AFFORDABLE AND CLEAN ENERGY



USM UNIVERSITI
SAINS
MALAYSIA



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- Energy resources that are:
 - Modern,
 - Sustainable
 - Accessible
 - Fully usable

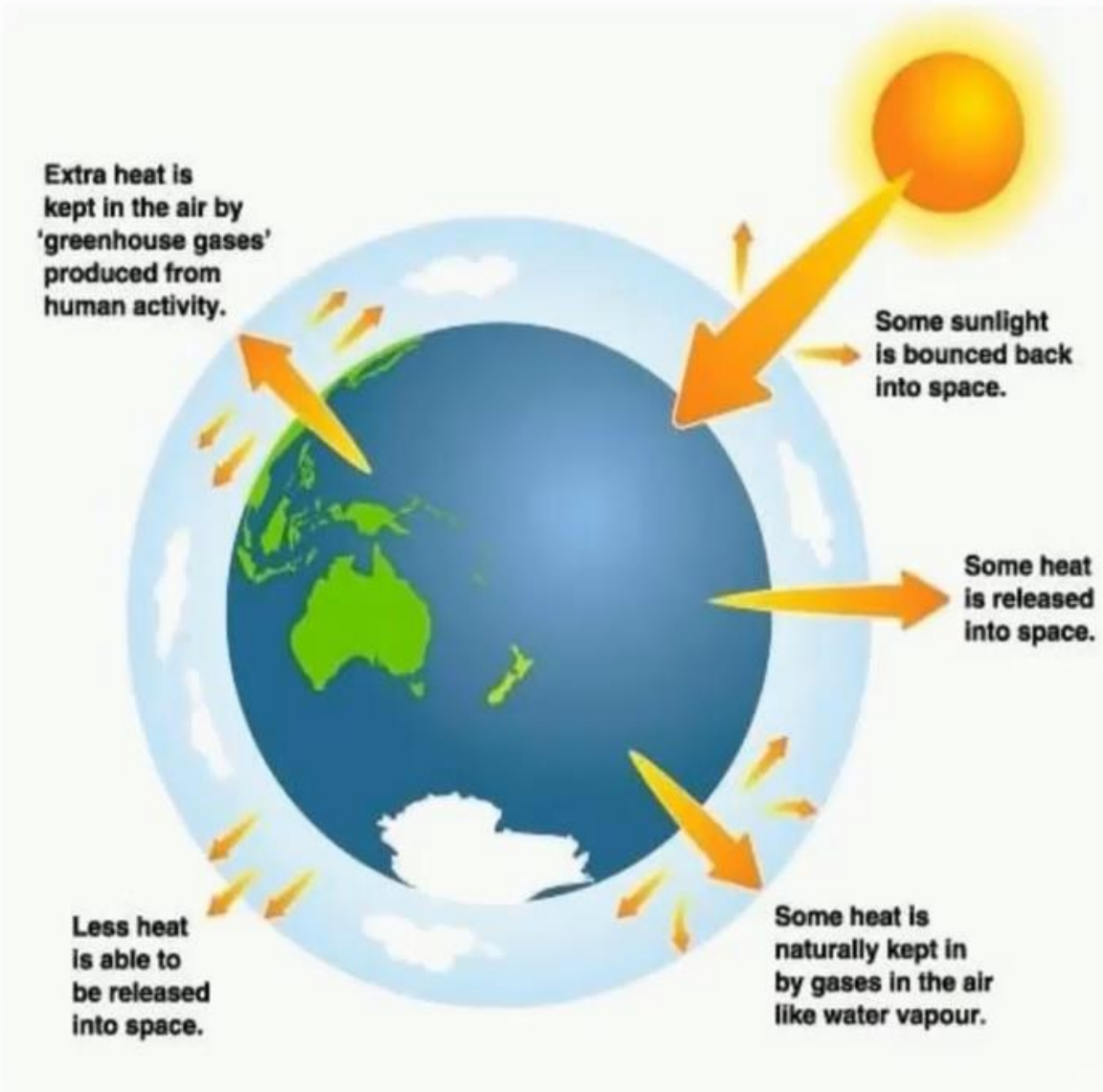


The goal: To replace fossil fuels to clean fuels (Renewable Energy)

AFFORDABLE AND
CLEAN ENERGY



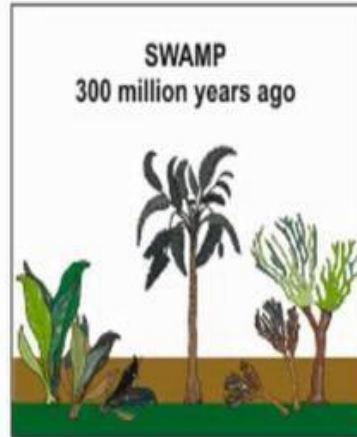
Fossil Fuels and Effect of Green House Gases



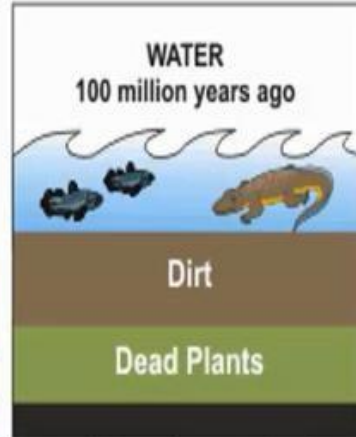
SUSTAINABLE
DEVELOPMENT
GOALS
AI

Fossil Fuels and Effect of Green House Gases

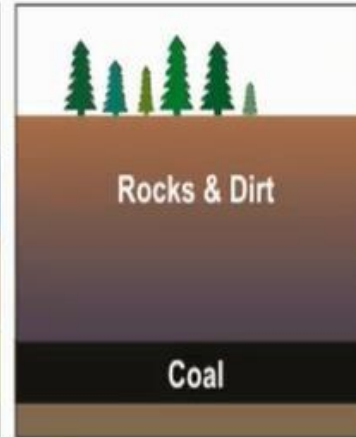
HOW COAL WAS FORMED



Before the dinosaurs, many giant plants died in swamps.

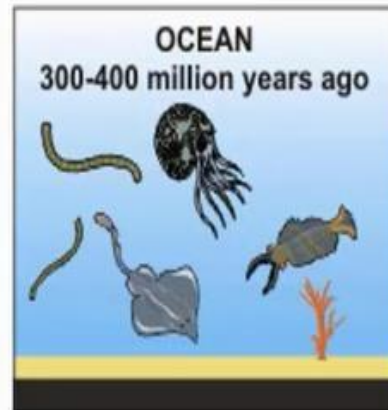


Over millions of years, the plants were buried under water and dirt.

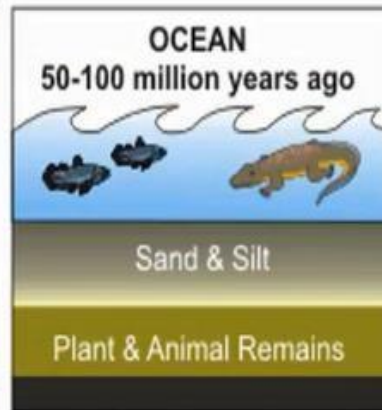


Heat and pressure turned the dead plants into coal.

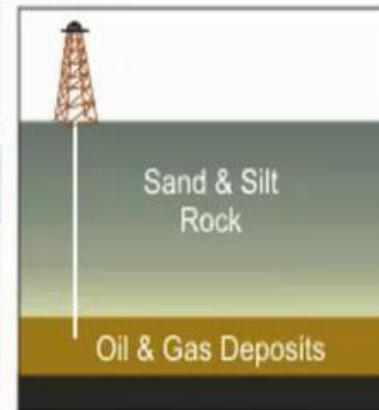
PETROLEUM & NATURAL GAS FORMATION



Tiny sea plants and animals died and were buried on the ocean floor. Over time, they were covered by layers of silt and sand.



Over millions of years, the remains were buried deeper and deeper. The enormous heat and pressure turned them into oil and gas.



Today, we drill down through layers of sand, silt, and rock to reach the rock formations that contain oil and gas deposits.

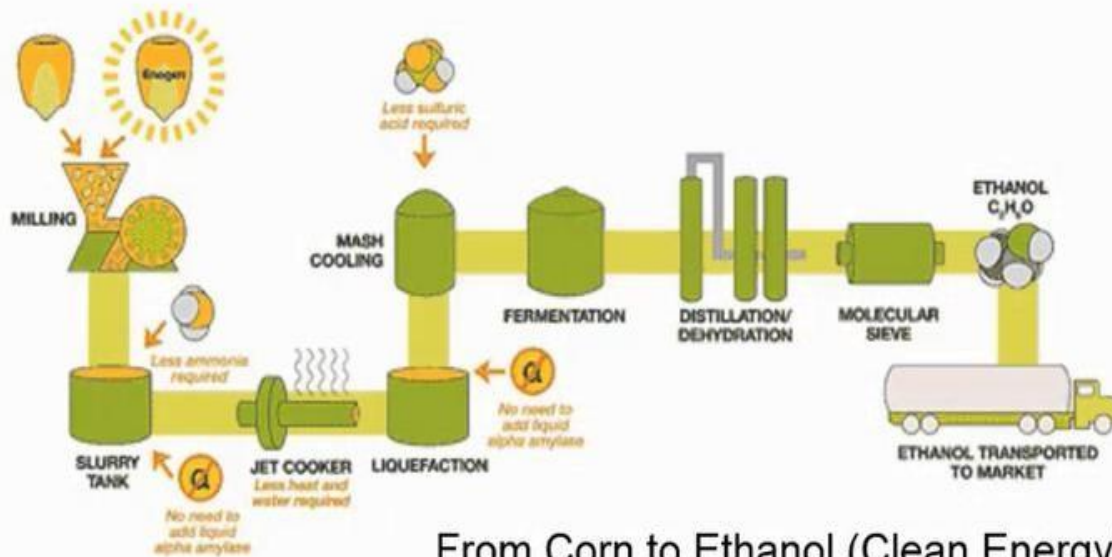
AFFORDABLE AND
CLEAN ENERGY



Renewable Energy

Renewable Energy Criteria:

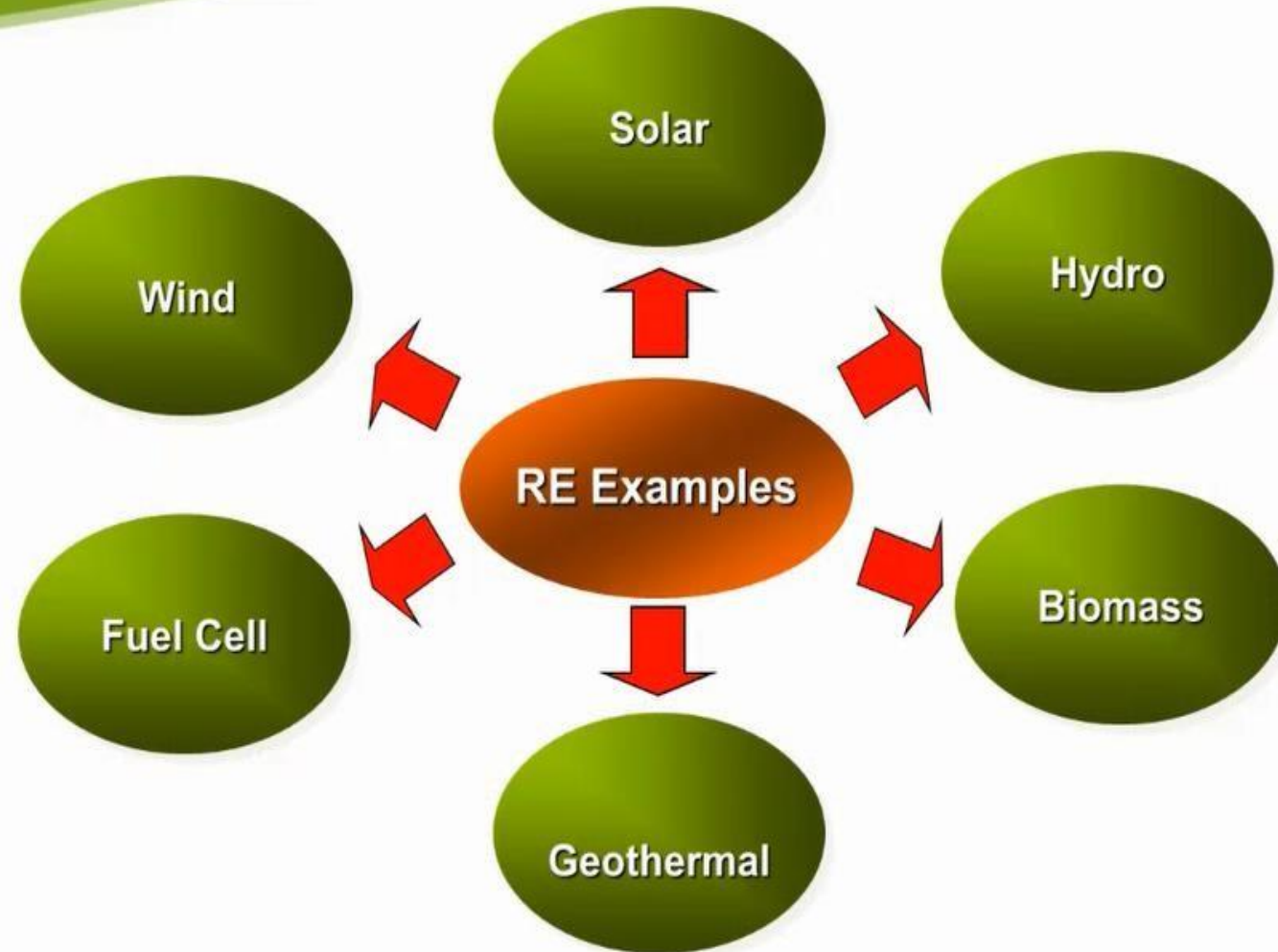
- Can be generated throughout human life
- Energy resources that are ready to be used



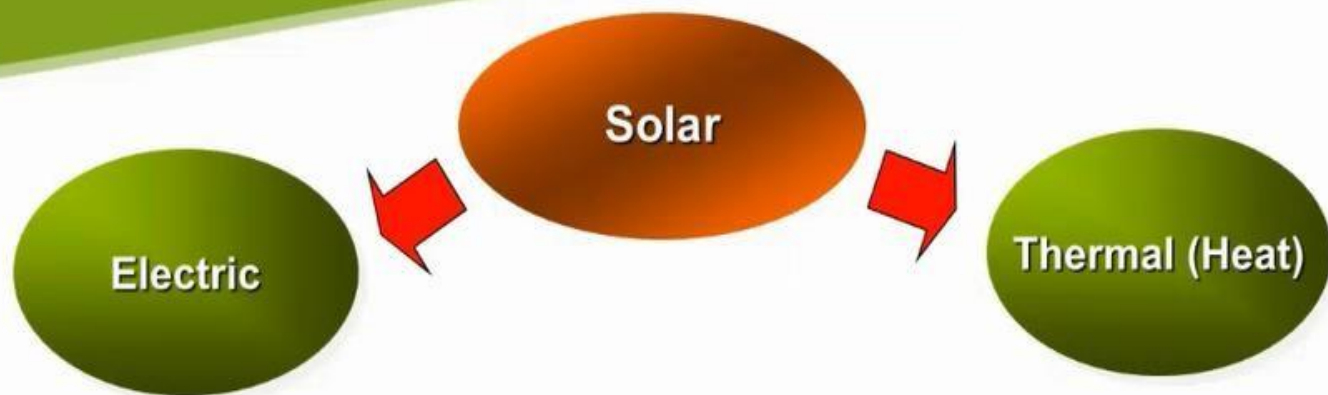
From Corn to Ethanol (Clean Energy)



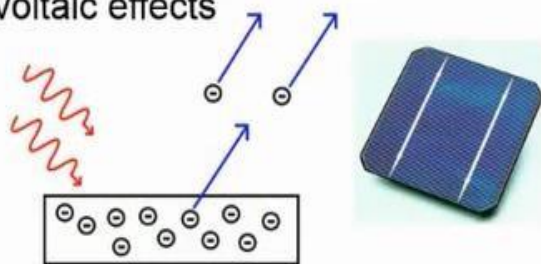
Renewable Energy



Solar



- Converted to electricity through photovoltaic effects



- Solar energy trapped by solar collectors for thermal energy



- Photovoltaics - electrons emitted from semiconductor material after receiving energy from electromagnetic radiation (light)



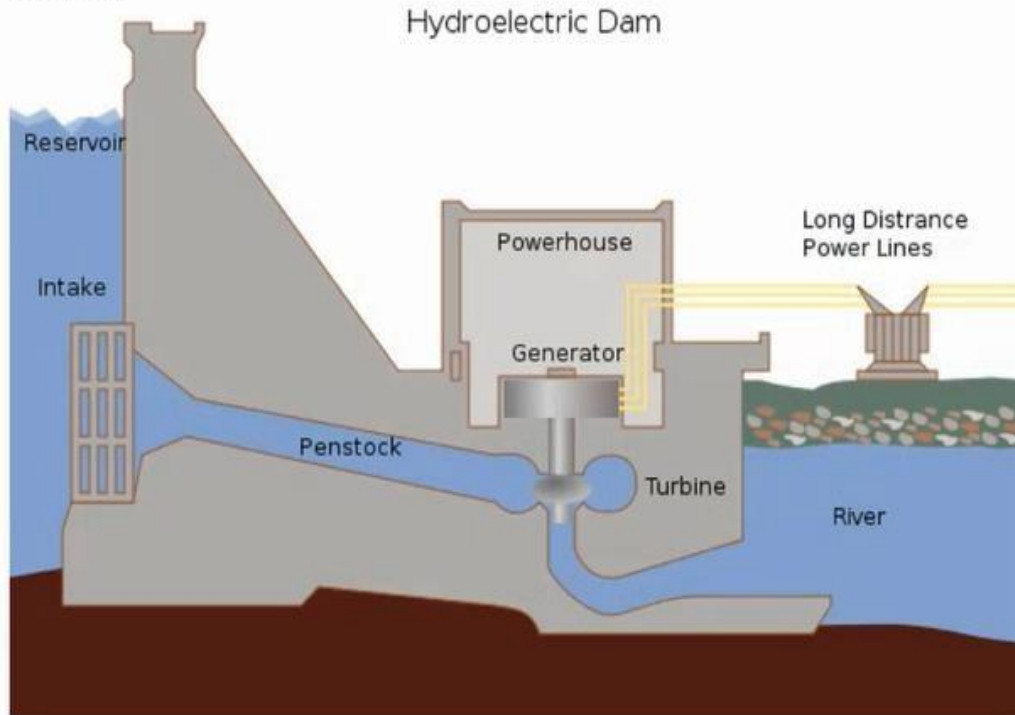
Wind

- Generated through the conversion of wind energy into electricity using wind turbines
- Consists of horizontal or a vertical axis types



Hydro

- Energy generated through gravitational force or water flow pressure
- Involves the construction of dams and the generation of electricity by turbine rotation

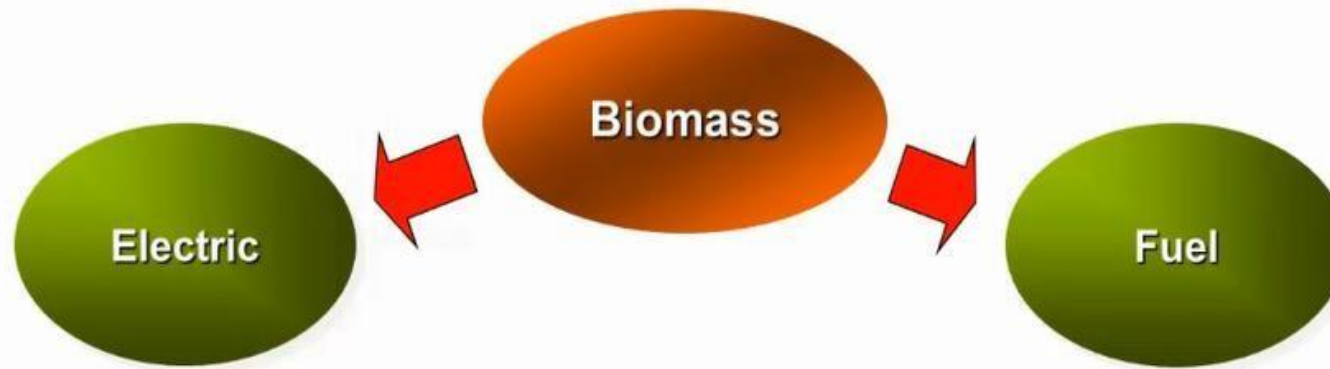


AFFORDABLE AND
CLEAN ENERGY



Biomass

- Renewable energy sources referring to organic matter



- Generated through the process of burning biomass material
 - It usually involves processed steam technology to rotate the turbine
 - Eg: Oil palm factory, rice mill
- Biomass becomes fuel for industry and vehicles
- Cth:
- Firewood
 - Ethanol, palm oil



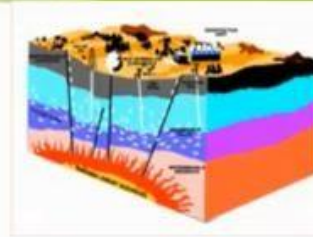
Fuel Cell

- 'Electrochemical' process conversion device
- Generates electricity from fuels (anodes) and oxides (cathodes) that react with the presence of electrolyte
- Fuel sources: Hydrogen, hydrocarbon, alcohol
- Sources of oxides: oxygen, chlorine, chlorine dioxide



Geothermal

- Energy generated from heat stored in the earth



- Its source comes from hot rock several hundred °C at depths within a range of km



AFFORDABLE AND
CLEAN ENERGY





RE that Conserve the Environment



Conclusion

Our everyday lives depend on affordable energy services to function smoothly and to develop equitably, clean energy is also important to counter the effects of climate change today



Let's use Renewable Energy together and practice energy efficiency!

AFFORDABLE AND
CLEAN ENERGY





4 QUALITY
EDUCATION



THANK YOU

Empowering Students'
Leadership in Sustainable
Development Goals (SDGs) via
Innovation and Inventions

(Video Competition)

7 AFFORDABLE AND
CLEAN ENERGY



15 LIFE
ON LAND

