Prof. Walker's Fun School

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af THE ASAHI GLASS FOUNDATION
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[Main characters] Gring Woodin

I'm Gring.
This is my friend Woodin.
We are working to protect the Earth's environment.

We've come to visit a farm in Australia with Prof. Walker.

Grass absorbs underground water and nutrients through the roots to grow.

So, it grows back even if most of the leaves and stems are eaten.

Look!
A new sprout is coming up!

When the grassland becomes sparse, we move the cattle to another area Switch!

I wonder if they're going to eat all the grass in the farm.

Grass can grow over and over again.

Prof. Walker studies the resilience of nature.

2018
Winner of the
Blue Planet Prize

The land is left to rest until it becomes green again.

Resting

In this way, nature has an ability to recover from change.

Nature is amazing!!

... But only to a certain degree of change ...

A certain degree? What do you mean?

Actually, the resilience of nature has a limit....

Once the grass decreases too much, it doesn't grow back even after the cattle are gone.
This happens quite suddenly.

Eventually, the land turns into desert where no grass can grow.

How awful!

POINT!

To avoid such things, we need to know the minimum amount of grass to sustain the grassland.

Why? You said that with the roots in the soil, grass can grow back, didn't you?

Yes, but you need a small amount of grass remaining aboveground.

When you understand this, you don't let cattle graze too long on the same land....

... or put too many cattle on a small pasture.

It's important to know there is a limit to the resilience of nature.

Rainwater just flows off across the surface without soaking into the soil, if there's no grass aboveground.

Without water in the soil, grass roots cannot absorb water to grow.

In addition, the higher the resilience of nature, the better chance there is to avoid going beyond the limit.

And it needs different kinds of plants and animals to enhance resilience.

Why is that?

I'm Garden Pea.

I'm Clover.

I'm Astragalus.

I'm Soy.

For instance, when there are many types of the pea family together, such as soybeans, it makes the soil richer.

Some can survive dryness, and some are resistant to diseases.

When there is only one species of the pea family ...

All alone

If the species is struck by a disease ...

Having plants with different strengths, the land as a whole, the ecosystem, can survive disease or drought without losing the function of the plants to enrich the soil.

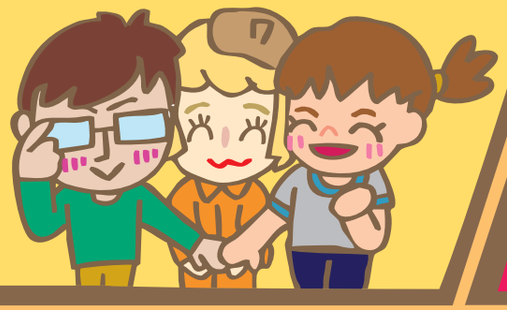
... there is nothing to enrich the soil anymore.

What if various different kinds of plants are there?

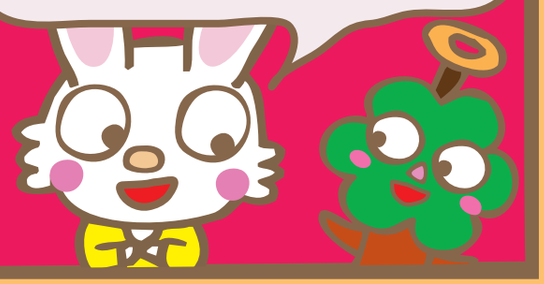
In this manner, having diverse plants and animals means a better adaptability.

This applies to humans.
It's not enough to have only good learners in the world.

Whatever may happen, with various skills, humans can cooperate to solve problems.

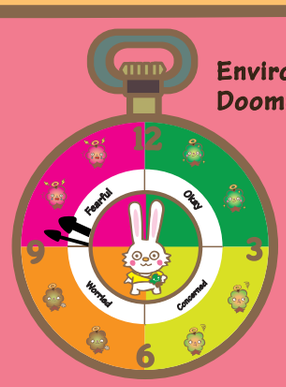


I see. I understand why biodiversity is important. Now I really want to see my friends!!



Thank you, Prof. Walker!

See you again!



Environmental Doomsday Clock

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