

— Halt soil salinization, boost soil productivity —



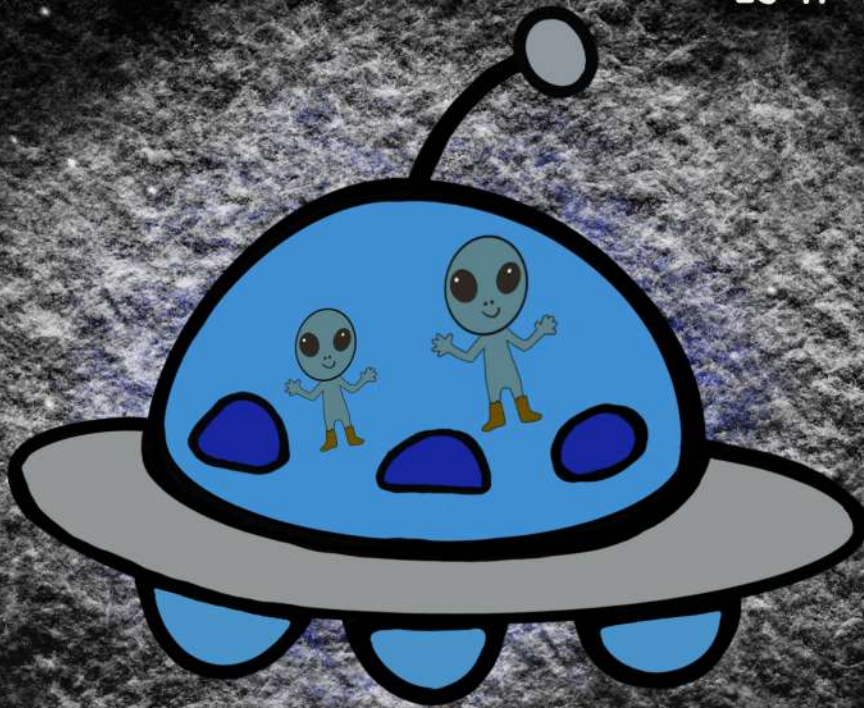
The saline-alkaline soil in aliens' eyes

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Elsa: Hey mom!! Look at that!! What's that planet? Is it the same with ours?

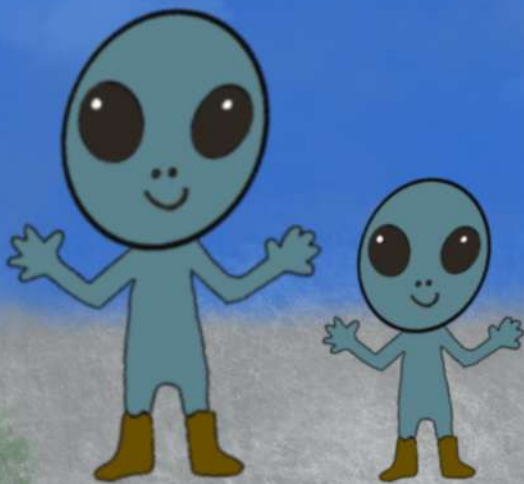


Anna: I don't know as well honey, let's go to find it out ~~



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Elsa : Mom Where are we?
Why the lond is like
this ? WHITE... DRY...
CRUST... and Desolation



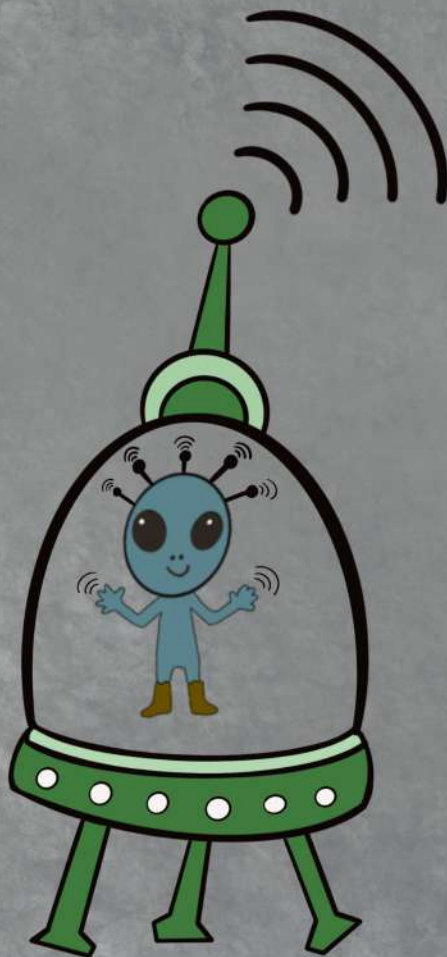
Anna : I don't know as well.

Let's check our chipset ~~~~~

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Anna: I got it Elsa. It is called Saline-alkaline soil. It is widely distributed in more than 100 countries and regions on this planet, and the total area of saline-alkaline soil is nearly 1 billion hectares.

Elsa: I don't understand mom... Why the soil here is saline and alkaline?



Anna: Many reasons could cause salinization and alkalization, like the Terrain and climate factors. Some places are affected by the sea water, there is lot of salt in the sea water. And some areas are under the effect of strong evaporation but low precipitation. In addition, some human activities can also cause secondary salinization and alkalization of the soil.

Elsa: I see..... so, what will happen on this kind of soil? It seems not a good soil 🤔

Anna: I will show you in these ways.....

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Salinization



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Sodification

A worse soil...



Alkali soil



^ This normally happens on clay soil

^ With high pH

^ Poor structure

^ Water can not infiltrate it

Reasons of salinization and sodification :

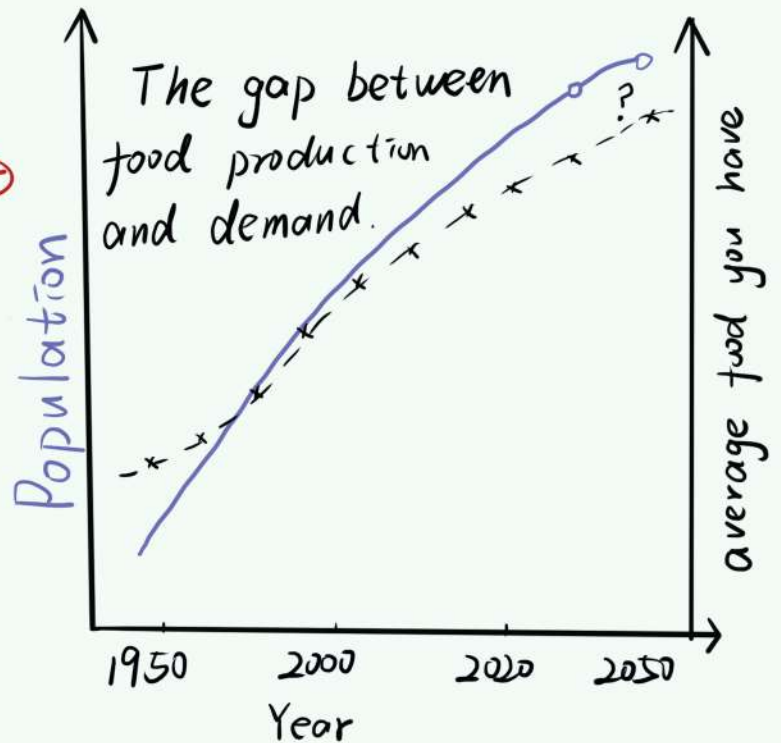
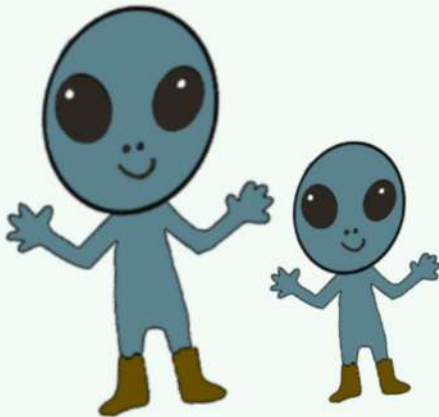
1. Soil minerals
2. Climates, like strong evaporation but lack of rain
3. Close to the sea
4. The original properties of soil...



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→ Food security



Anna: You know Elsa, the worst effect of salinization and sodification is the reduce in yield, many people on earth will suffer from hunger...

Elsa: I'd like to know more, mom.

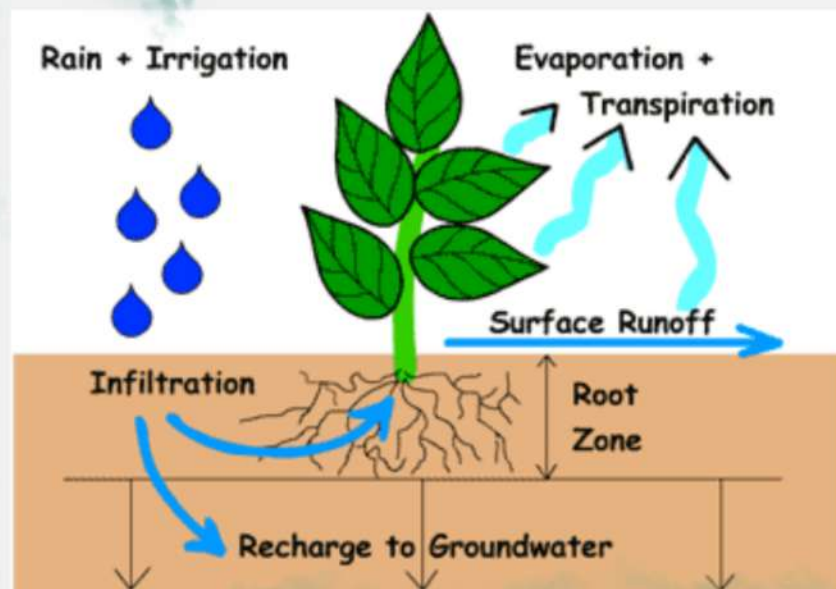
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How to improve the
saline and alkaline soil?



1st

Water and salt balance

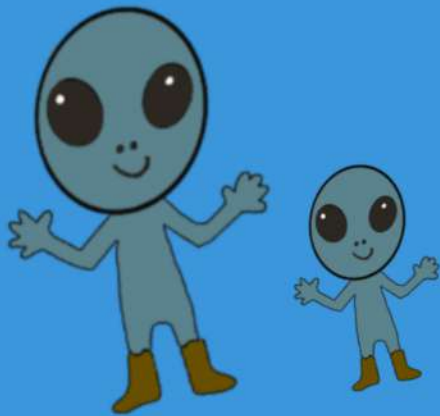


Proper irrigation helps improving the
water status of saline and alkaline soil.

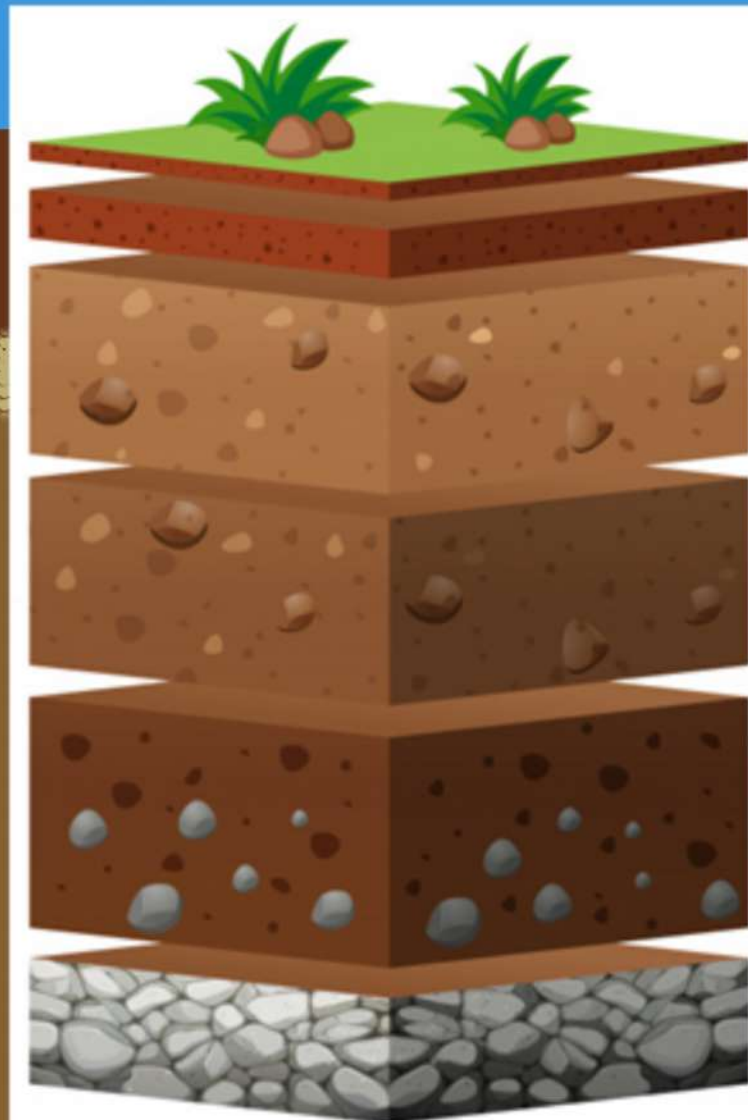
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2nd

A coarse layer is efficient to prevent the salt move to the surface with water.



Coarse layer
at about 30-40 cm



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Elsa: I know mom... there are also somethings that children can do!

3rd





 Save water

 Save food

 Save resources

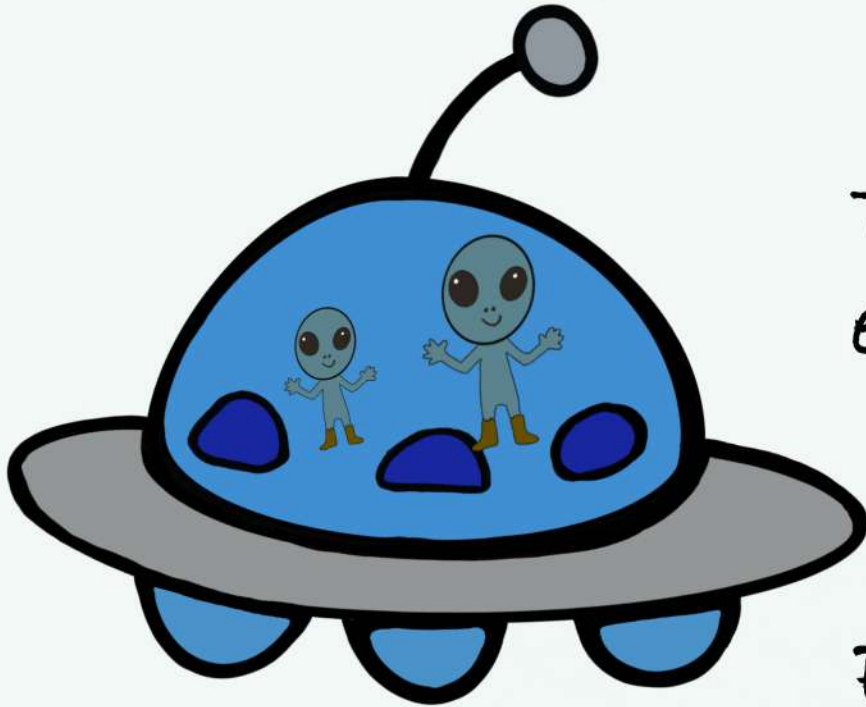
 Save anything you can save!!!



Anna: Absolutely right my honey , I am proud of you   

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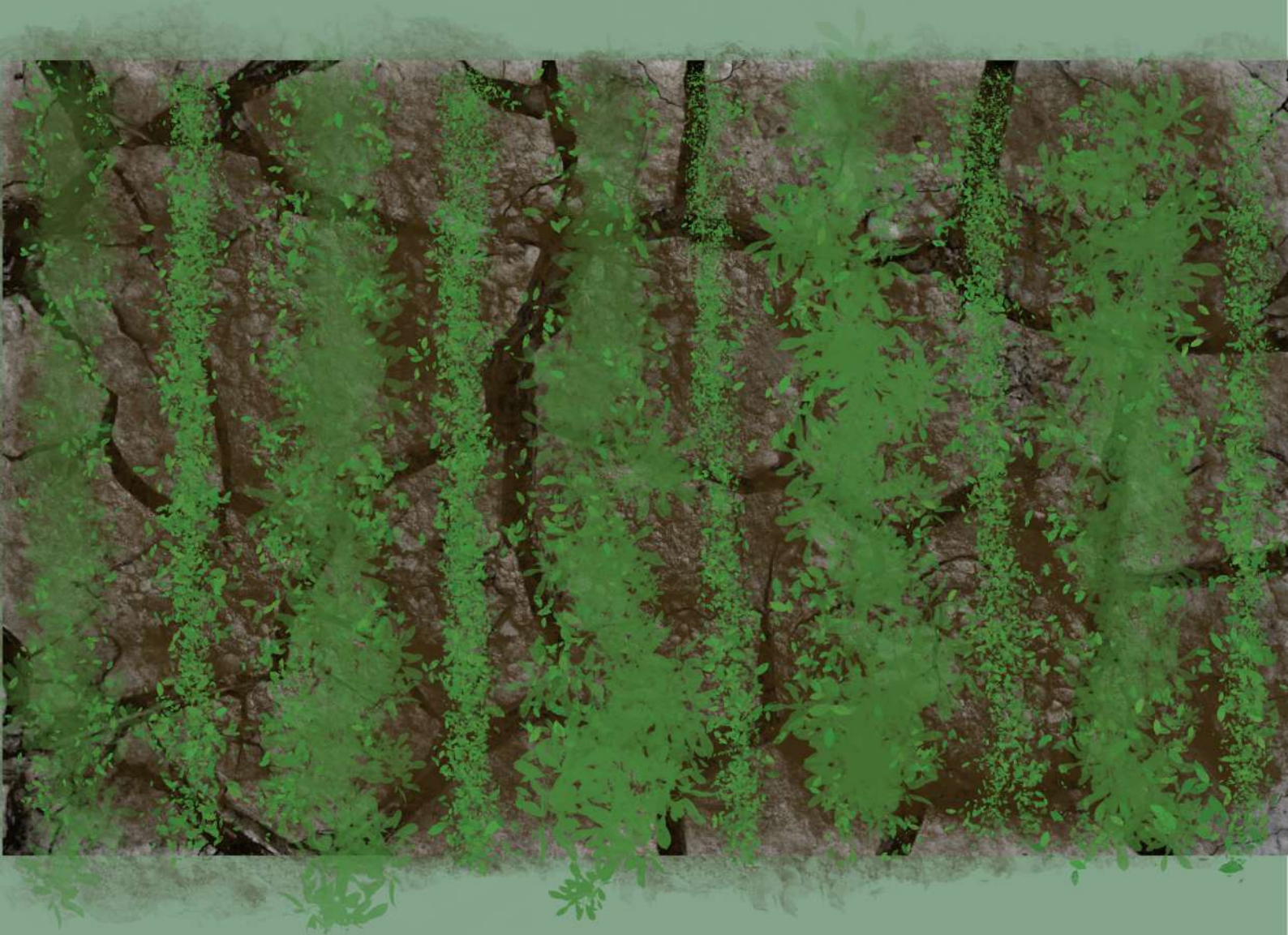


The beautiful
earth is back.

People are full.



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Saline and alkaline soil become oasis!

