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

Anna: I don't know as well. Let's check our chipset....
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 alkalinization, 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 alkalinization 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

1. Salts on the surface
2. Hard, poor structure
3. Nutrient deficiency
4. Dry → cracks prevent water absorption
5. Poor root growth and development
6. 7. 8. 9. . . . .
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**Sodification**

A worse soil...

**Alkali soil**

- This normally happens on clay soil
- With high pH
- Poor structure
- Water cannot 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...
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

Proper irrigation helps improving the water status of saline and alkaline soil.
A coarse layer is efficient to prevent the salt from moving to the surface with water.

Corse layer at about 30-40 cm
Elsa: I know mom... there are also somethings that children can do!

- 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.
— Halt soil salinity, boost soil productivity —

Saline and alkaline soil become oasis!

Claps~~~