

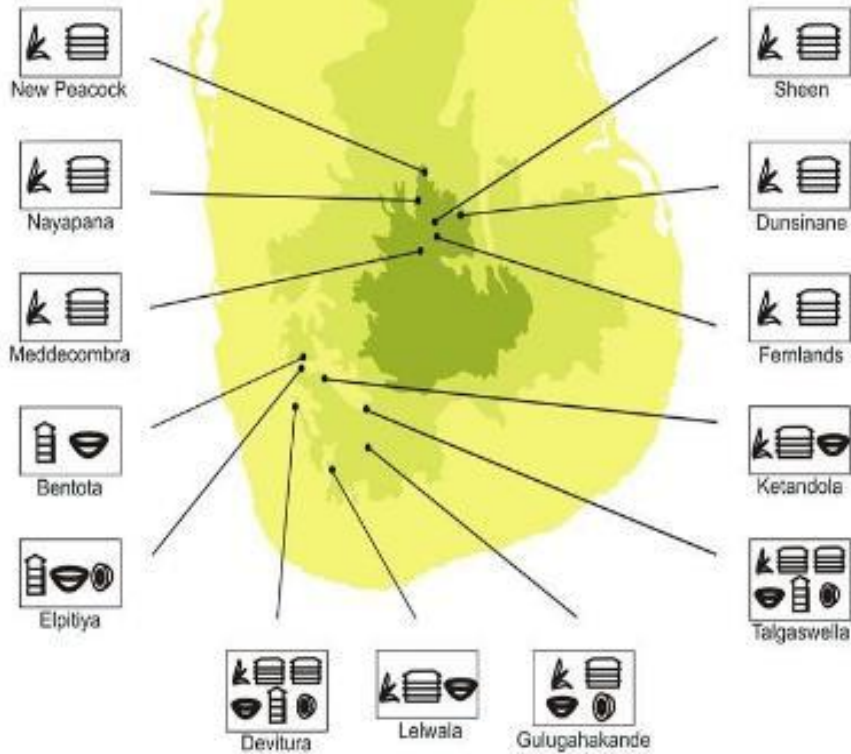
HARVESTING, RECHARGING AND WATER CONSERVATION

Elpitiya Plantations PLC

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Our Presence



- 13, Estates in Up, Mid and Low Country regions in all three elevations with Tea, Rubber, Palm oil, Coconut, Cinnamon, Coffee, Berries. Fruit crops

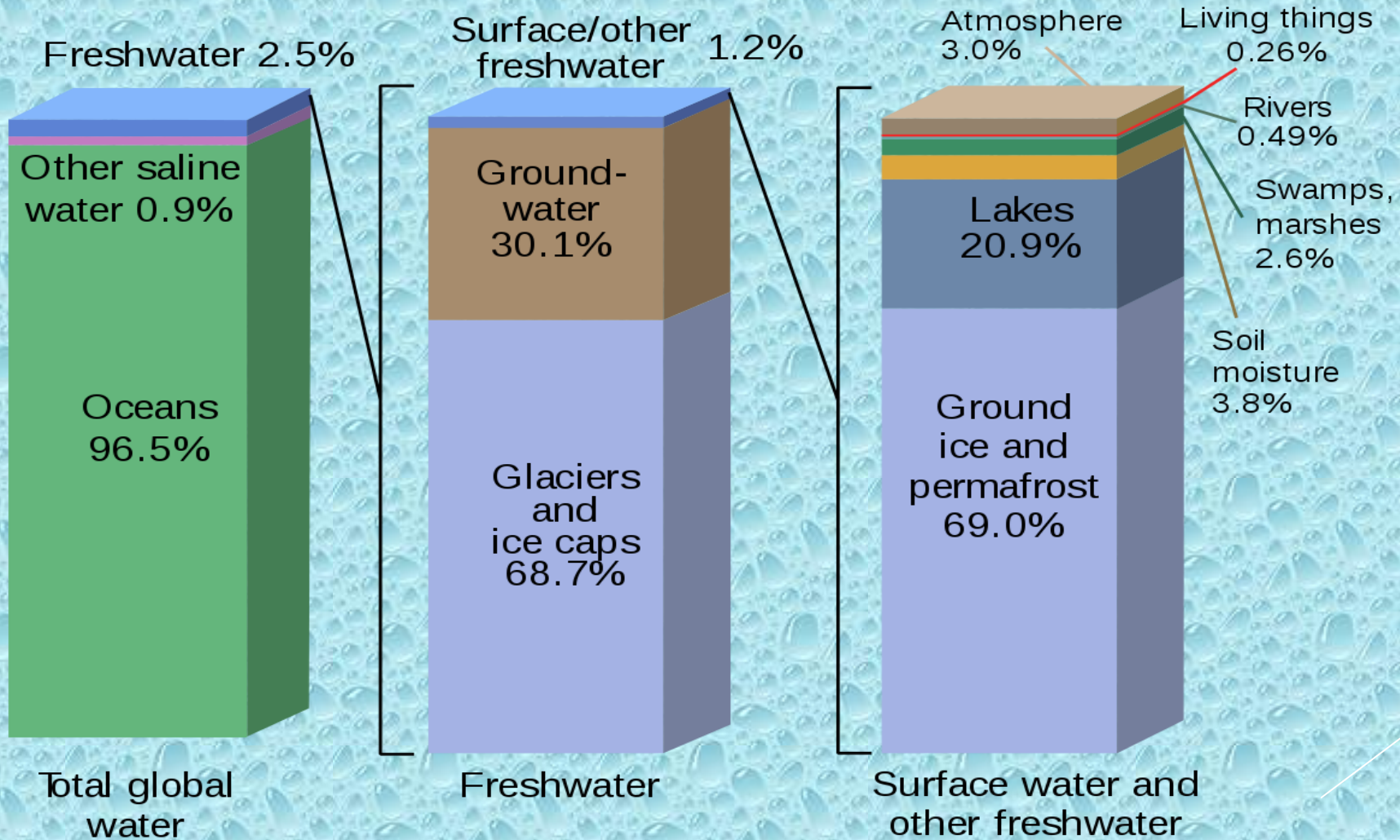
Land Extent – approx. 8,800 ha

Total workforce – 6,003

Total population – 34,245

Only source of water to earth is from rain.

Where is Earth's Water?



▷ We focus on!

▷ **Rainfall pattern**

- ▶ Number of wet days
- ▶ Density of rainfall

▷ **Improvement of soil texture**

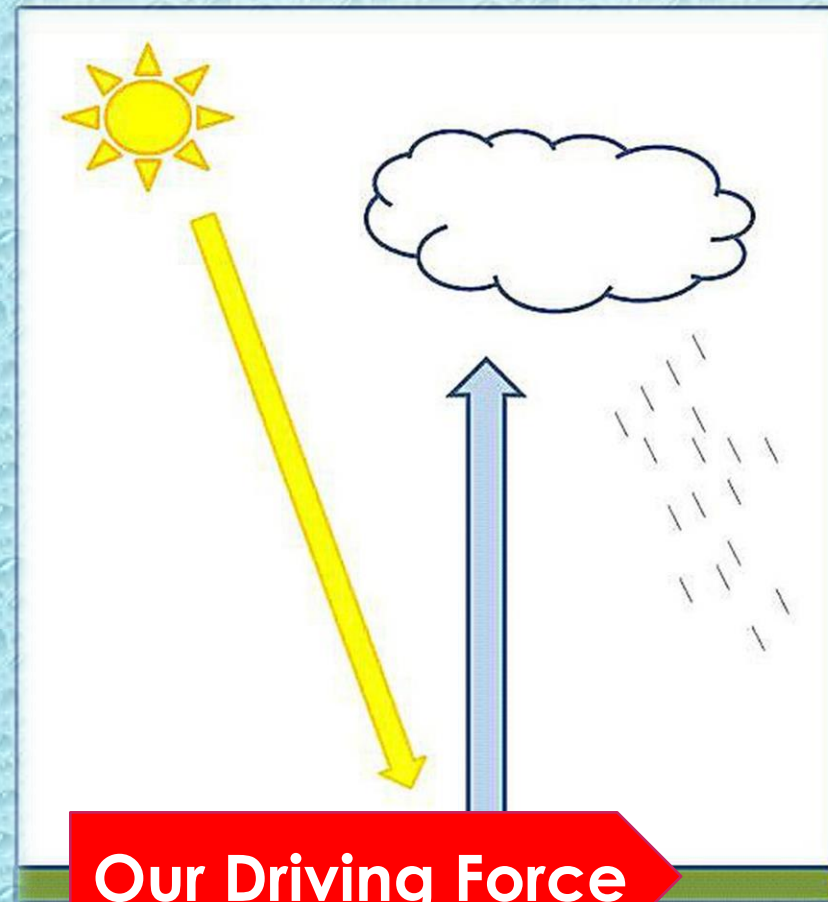
- ▶ Good agricultural practices (GAP)

▷ **Water retention**

- ▶ Draining and composting, mulching

▷ **Water conservation**

- ▶ Rainwater harvesting
- ▶ Protecting ground water resources
- ▶ Reduce the waste
- ▶ Optimizing water efficiency
- ▶ Forestation
- ▶ Awareness for community on water conservation



Our Driving Force

SWMP



6 CLEAN WATER AND SANITATION



OUR TARGETS....

- 65 ponds – harvesting over 180 million liters
- Irrigate 25% of land extent with RW
- 05% of land extent develop as water shed
- Restoration of stream reservation by planting native plants and connecting animal corridors to improve biodiversity.
- Increase soil carbon level over 03%
- Portable water to all estate households
- Educate estate community on preventing water pollution and conservation of water.

OUR ACHIEVEMENTS

Target	Achieved
65 ponds (180 million liters of water)	77 ponds 254,107,870 L per harvest
Irrigate 25% of land extent with RW	Oil Palm 50Ha
5% of land extent as water shed	1% development
166-hectare land extent identified as stream reservation connecting animal corridors	20% extent developed
Increase soil carbon level over 03%	2.75%
Portable water to all estate households	64%
Educate estate community on preventing water pollution and conservation,	60%





Improvement
of soil water
holding
capacity

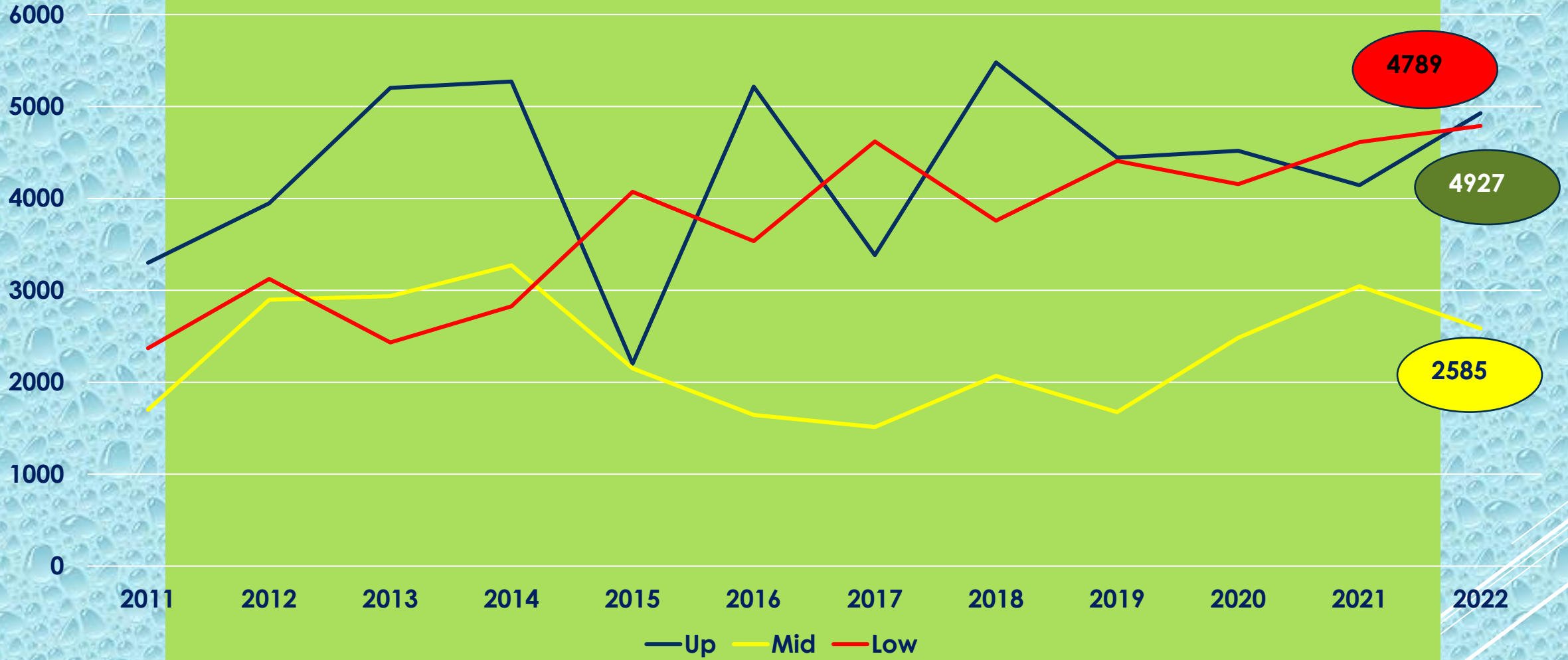
Rainwater
harvesting
&
recharging
soil

Water
Retention
and
availability
...

Water
Conservation
& use
efficiency



RAINFALL PATTERN OF 3 ELEVATIONS



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Up	3301	3948	5203	5271	2203	5216	3384	5480	4444	4517	4144	4927
Mid	1701	2897	2937	3273	2152	1644	1513	2071	1675	2484	3045	2585
Low	2370	3124	2432	2825	4071	3535	4619	3757	4408	4156	4612	4789

WET DAYS PATTERN – FOR 3 ELEVATIONS



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Up	175	156	192	178	166	175	175	148	161	172	172
Mid	193	160	195	184	156	168	156	137	167	190	166
Low	212	188	222	174	147	168	159	168	194	205	192



Rainwater Harvesting, Drip Irrigation and Soil Enrichment



Ponds - 77
Capacity – 254 Mn Ltrs



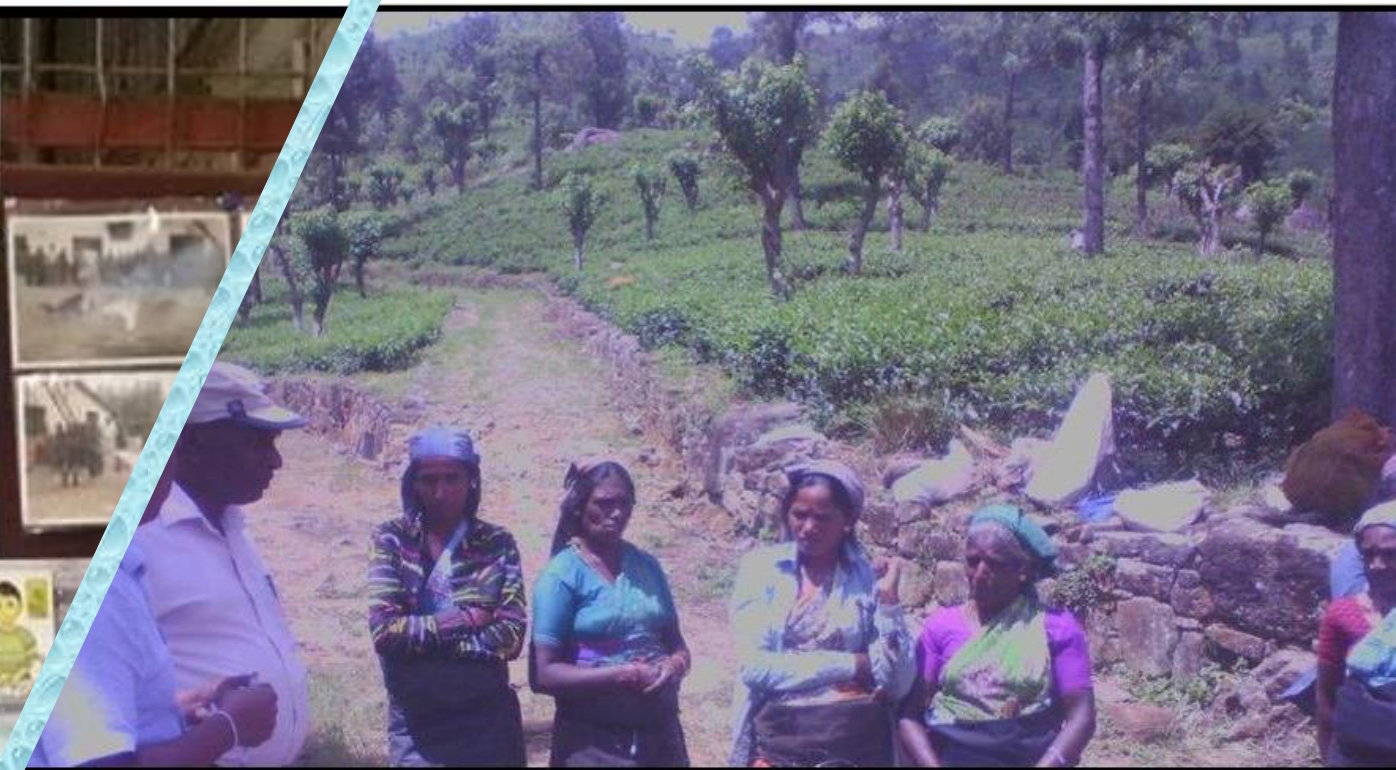
Roof rainwater harvesting at Meddecombra tea factory



Rainwater collecting pond

**WATER AND
HOUSING
FACILITIES
FOR
COMMUNITY.**





Awareness for workers on conservation of water



Improving soil carbon levels by application of organic

Production and application of biochar



Increase soil carbon will increase soil water holding capacity

NATIONAL NUTRIENT COORDINATING SERVICE (NCS) USDA

unlock the secrets in the soil

www.nrcs.usda.gov

"We know more about the movement of carbon than we do about the soil underfoot!" — Josephine de Winter

Living in the soil are plant roots, bacteria, fungi, protozoa, algae, mites, nematodes, worms, ants, maggots, insects and grubs, and larger animals.

science of soil

soil is made of about **45% minerals**, **25% water**, **5% organic matter**, and **25% air**

what's underneath

Healthy soil has amazing water-retention capacity. **Every 1%** increase in organic matter results in as much as **25,000 gal** of available soil water per acre.

100 million-1 billion individual bacteria

All of the soil microbes in **1 ac/ft** of soil weigh more than **2 cows**

Earthworm populations consume **2 tons** of soil matter per acre per year, partly turning it into rich soil.

what it does

Healthy soil is key to feeding **9 billion** people by **2050**

USDA-NRCS SOIL HEALTH INFOGRAPHIC SERIES #002

what's underneath

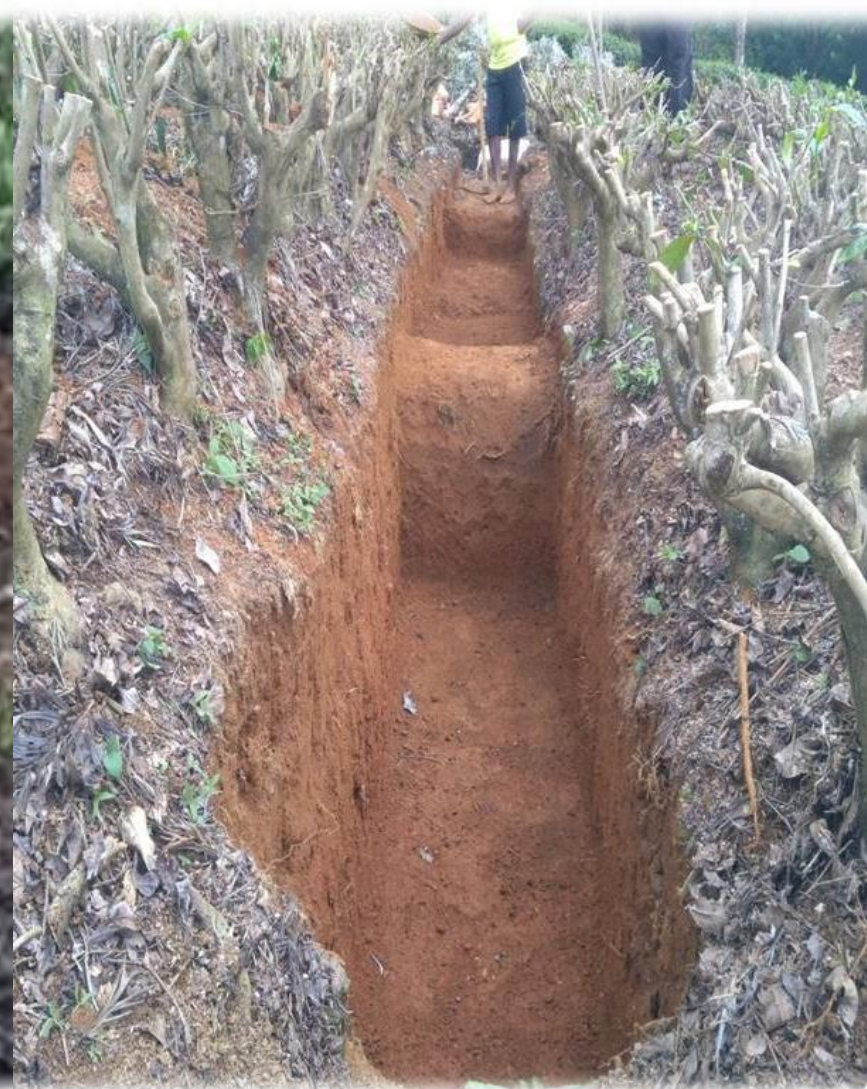
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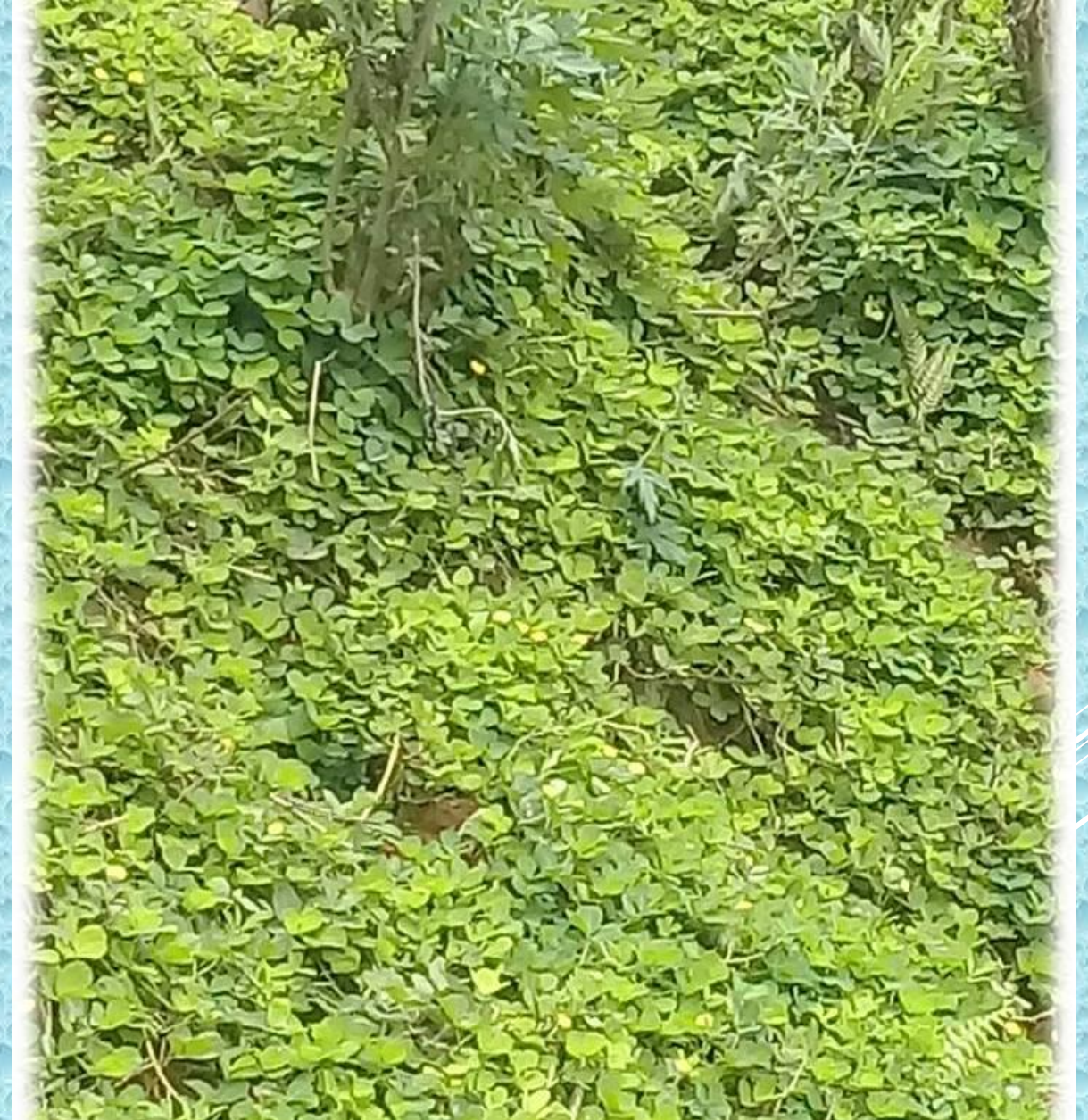
Source: Kansas State Extension Agronomy Updates, Number 207, July 6, 2017

USDA United States Department of Agriculture

Want more soil secrets? Check out www.nrcs.usda.gov



Collection of rainwater in tea fields with contour darning system



Conserving soil moisture with mulching and planting cover



Planting native plants in stream reservation/ boundaries



*Planting native plants in stream reservation/
boundaries*

WE GROW AND CARE FOR FEATURE

RESTORING STREAM RESERVATIONS AND CONNECTING ANIMAL CORRIDOES





Rewards for our Sustainability efforts!



Save water+ save plants +save planet = save Life