

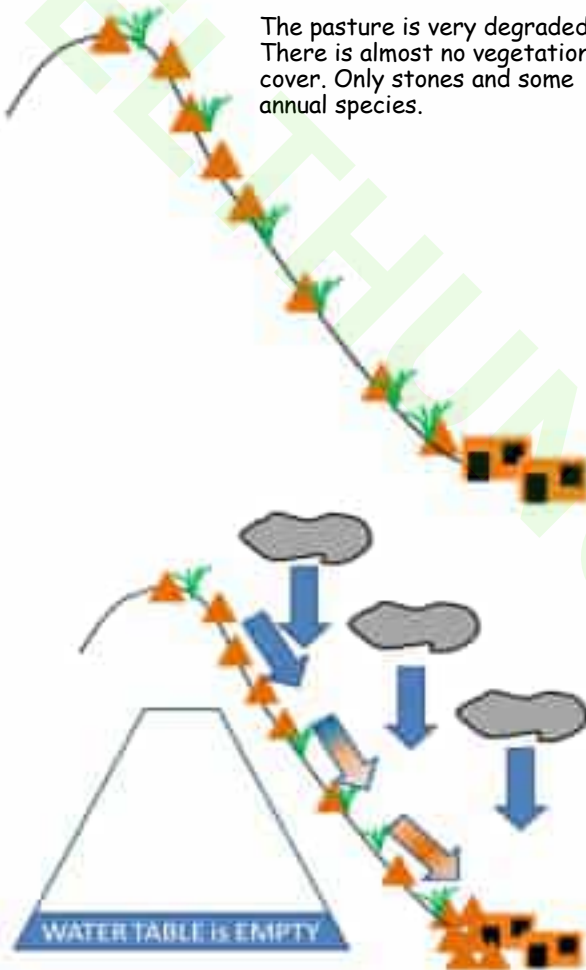
PASTURE DEGRADATION ***Eroding away future food!***



What is Pasture Degradation?

Degraded Pasture

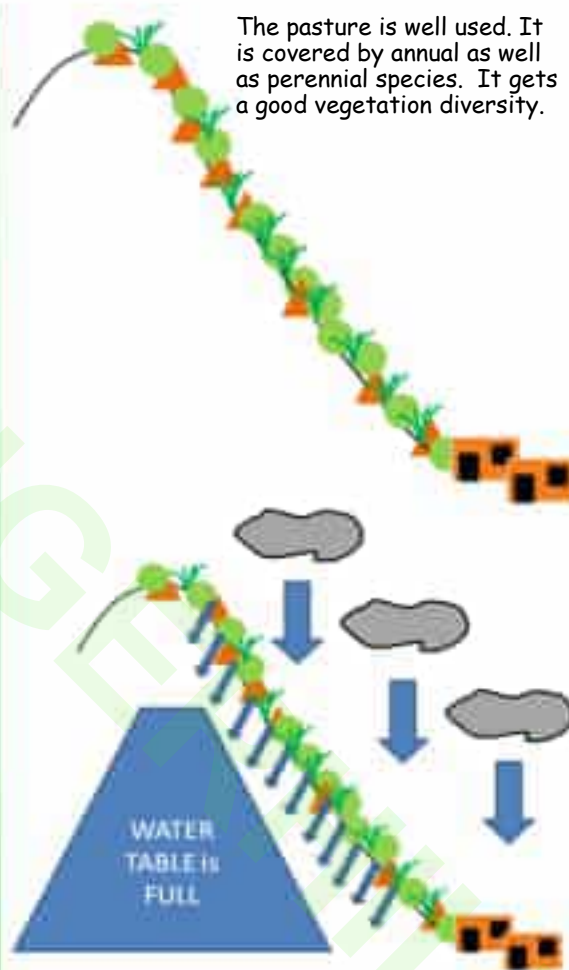
The pasture is very degraded. There is almost no vegetation cover. Only stones and some annual species.



When it rains, nothing stops the water flow. There is no water seepage. Water runs away, erodes the fertile soil away, grows bigger and bigger and carries away stones and soil. The flash flood arrives in the village and destroys houses and irrigated lands.

Healthy Pasture

The pasture is well used. It is covered by annual as well as perennial species. It gets a good vegetation diversity.



When it rains, the water flow is stopped by the vegetation cover. Water can infiltrate into the soil and recharge the water table for irrigated lands cultivation. No flood, no damage.

What is Pasture?

1

A natural resource essential to life and social and economic development villages and households:

- Food source for livestock
- Water Provision
- Fuel source for heating and cooking
- Medical Plant source
- Natural protection against flood

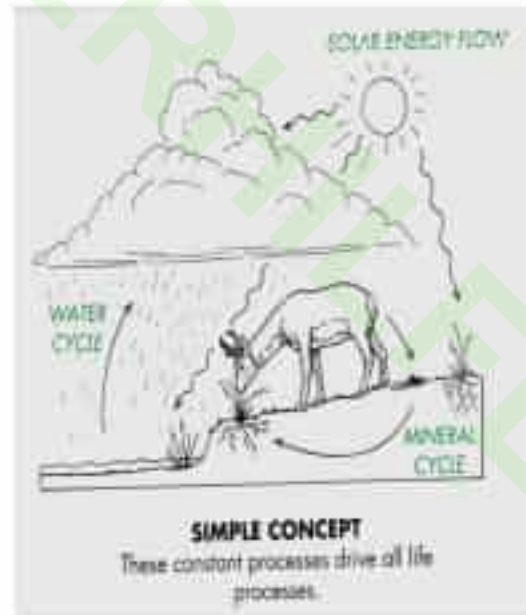


2

In the past pastures were abundant and provided enough for humans and livestock needs.

The productivity of pastures depends on how humans use them.

If we clear all the plants for fodder and fuel, the plants cannot spread seed to grow again. The bare soil will become hard and dry and the springs will dry up because the rain and snow cannot soak in.



Resulting from different factors, but not the results of armed conflict

Household practices:

- Inefficient technology for cooking and heating
- Overexploitation and uprooting of plants for fuel (heating and cooking)
- Use of dung for cooking and heating
- Overharvesting of food and medicinal plants
- No reseedling process



HOW TO EXPLAIN PASTURE DEGRADATION?

Agriculture causes:

- Crop aftermath is not used efficiently
- Forage production is not well integrated into crop rotation on irrigated land
- Rainfed forage production is not practiced
- No use of enough manure
- Conversion of rangelands into rainfed crop production areas (lalmi)
- Soil fertility

Environment causes:

- Reduction of rainfall
- Low level of water table
- Impact of severe drought
- High run-off
- Wind and water erosions
- No anti-erosion measures

Livestock causes:

- Overgrazing around the villages
- Not enough forage production
- Collection of winter fodder
- Too high number of animals
- Lack of knowledge in livestock management
- Livestock is only available savings mechanics

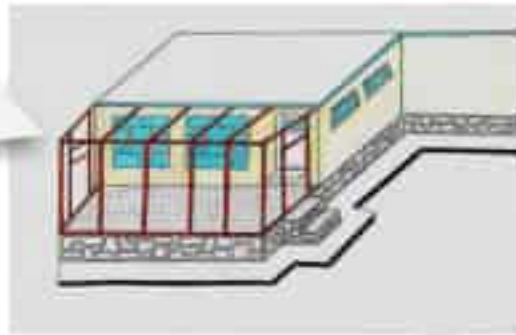
Social causes:

- No knowledge of and no awareness for resource protective management
- Food insecurity
- Lack of community coherence and action
- No communal land titles or usage rights

Find and use alternative heating and cooking sources

2

Establish Passive Solar Houses to heat houses, to reduce fuel consumption, to reduce children winter diseases and to develop other income generating activities inside.



Solar Ovens can be used during the spring and summer to heat water and cook.

Plant Non fruit trees along the water channels, around the reservoirs.



What Solution?

1

Change and improve the crop cultivation and breeding habits

Limit lalmi cultivation by intensifying irrigated land and developing livestock as income generating activities



Improve soil organic matter by leaving manure and crop aftermaths on the ground

Extend the grazing area. Not only graze around the villages but also graze in further areas in order to limit overgrazing.



Introduce new exotic/indigenous and perennial species to improve soil structure and fertility to cover the soil

Develop winter forage crops in irrigated land in order to reduce pasture fodder harvesting.



Collect seeds and reseed the most de-graded pastures with convenient species

1

Collect seeds of the best plants in the pasture:

- ***Seeds quality***
- ***Plant condition (disease, size)***
- ***Density***



2

Broadcast the seeds in de-graded pasture areas at the right time (before winter)



3

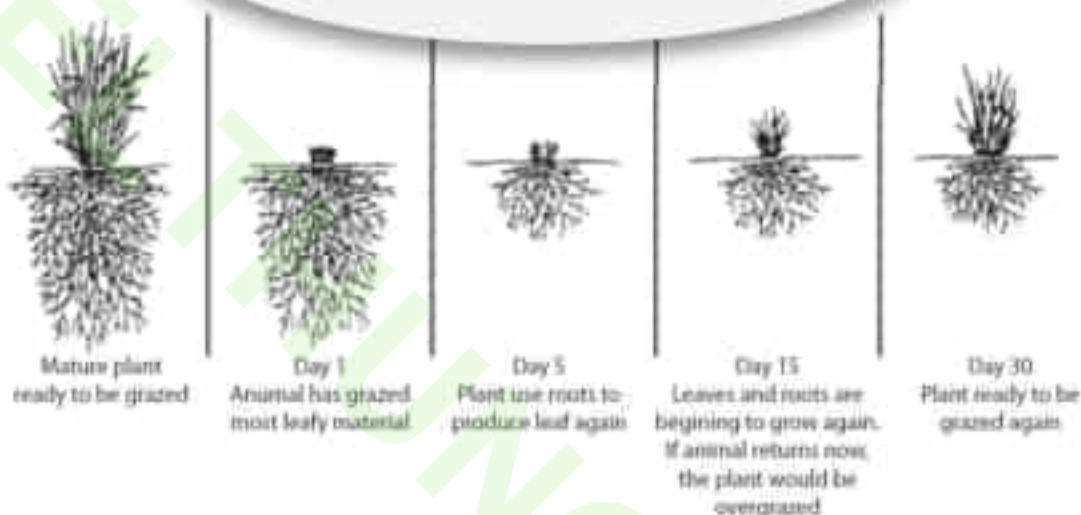
Let it grow again! Avoid to graze it at this moment up to the right size.



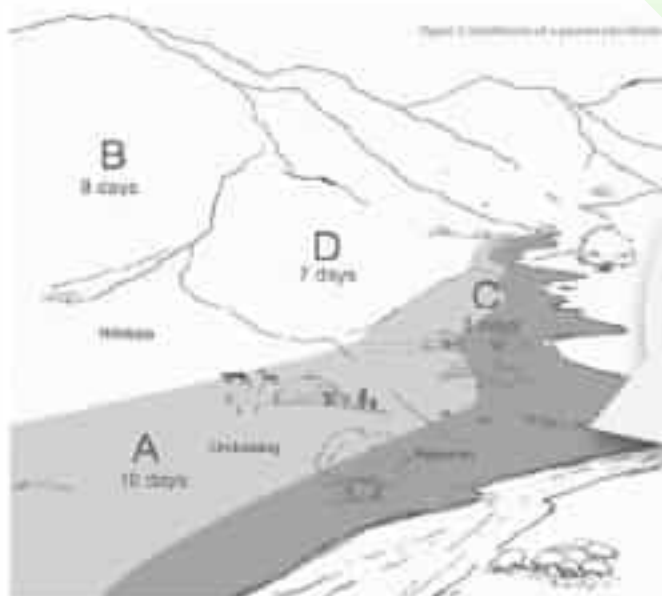
Advised species for reseeding:

- ***Ghigo***
- ***Legume as: Zard Gul Chadak, Zard Gul Pashmak, Zard Gul Turbak, Local Alfalfa and French Alfalfa***
- ***Chadak***
- ***Pali***

**Stop uprooting all the plants
BUT
Cutting the bush and the grass
at the base**



**If the roots are still present, the plant can grow again
Important not to uproot or to graze the roots**



**Wait enough time
before grazing
again so the
grasses have time
to regenerate**



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