# Sustainable Rangeland Management at landscape level – setting the scene

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GSSA 2018: Rangeland Stewardship in Communal Framing Landscapes –

Innovative models for policy and planning

Roodeplaat 24 July 2018

# Presentation outline

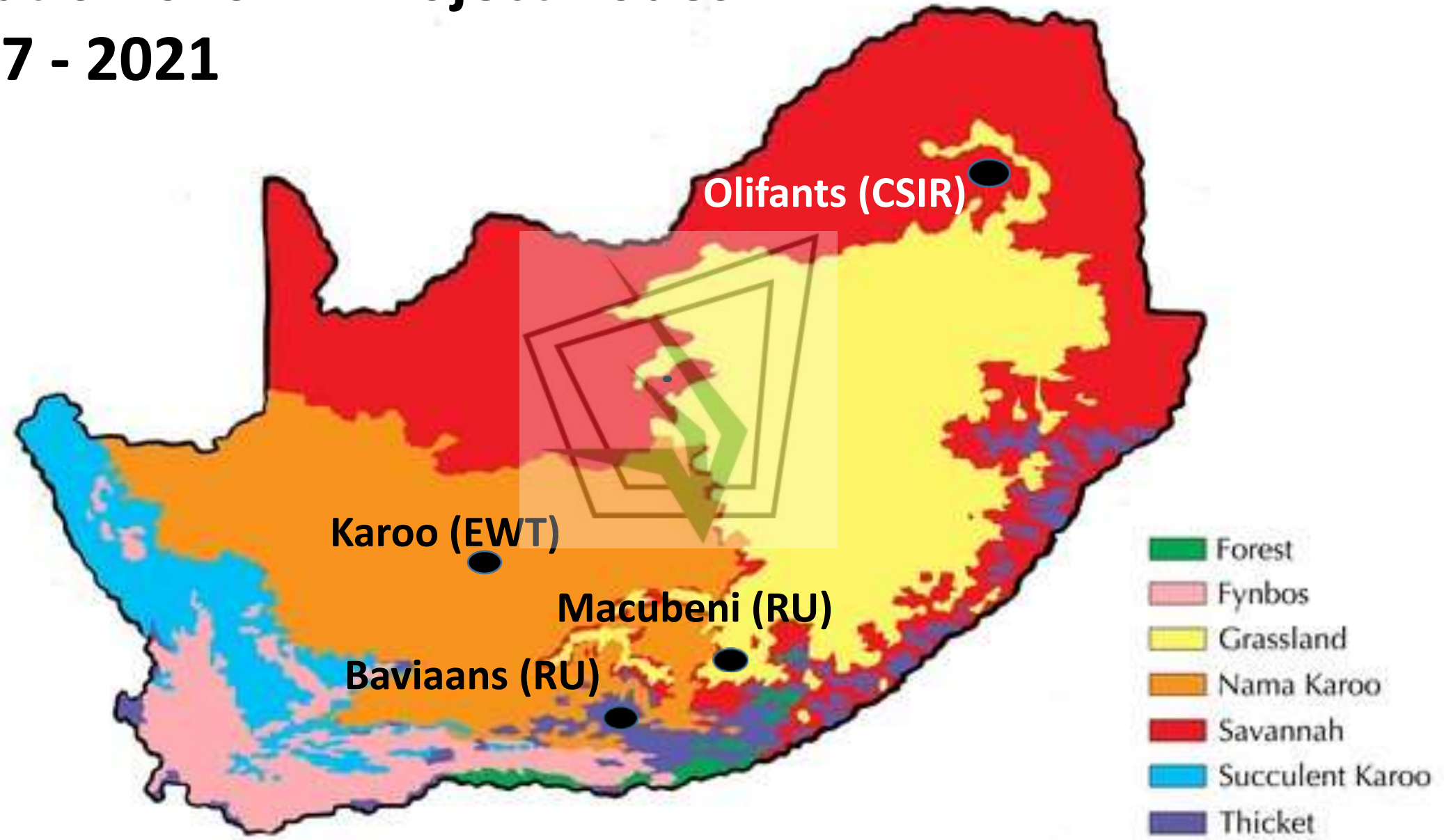
- The GEF 5 SLM Project
- The challenge, communal grazing
- Understanding SLM and its link to SDG's
- Some important principles to keep in mind

# “Securing multiple ecosystem benefits through SLM in the degraded but productive landscapes of South Africa (SLM Project 2017 - 2021)”

To strengthen the enabling environment for the adoption of knowledge-based SLM models for land management and land/ecosystem rehabilitation in support of the green economy and resilient livelihoods through capacity building, improved governance and financial incentives demonstrated in the Karoo, Eastern Cape and Olifants landscapes

# Thank you!

# Location of SLM Project nodes 2017 - 2021



# Long term solution we want to achieve…

- To reduce the costs of ecological restoration in South Africa and increase the productivity of the land
- This requires an innovative approach to SLM and will entail:
  - enhancing the capacity of government, institutions and local communities to mainstream SLM into policies, plans and programmes; and
  - implementing climate-smart ecosystem rehabilitation and management measures.

# One of our major SLM challenges: Communal grazing land

- Most livestock in sub-Saharan Africa are grazed on **communal pastures**.
- Previous Homeland areas, Self-Governing States of SA, and in most municipal commonages, mostly **open access towards rangelands**.
- **Open access, uncontrolled grazing**, is considered to be a **principal cause of overgrazing and land degradation**.
- **Grazing land is a renewable resource**. It regenerates at rates determined by natural factors, such as soil fertility and especially rainfall, and by management factors such as intensity of use.
- Any given area of land has a **carrying capacity,** the **number of livestock** which it can **sustain while maintaining biologically optimum levels of forage production**.
- **Overgrazing** is defined as a **reduction in forage production below the biological optimum**, when considered in terms of some unit of time.

# Communal grazing

- Maintaining optimum levels of long-term forage production requires that **livestock numbers be maintained at carrying capacity.**
- Livestock holders who wish to **maximise the forage production and livestock over the long term must make their short-term stocking decisions consistent with long-term maximisation criteria.**
- On communal rangelands this would require **individual users to group together** to determine the optimum number of total livestock to be allowed on the range, and to **distribute grazing rights among all users** so that the total number of livestock does not exceed carrying capacity.
- Experience has shown that, in the **absence of strong institutional controls over individual stocking decisions, it is difficult to achieve this kind of co-operative outcome**.

# Communal grazing

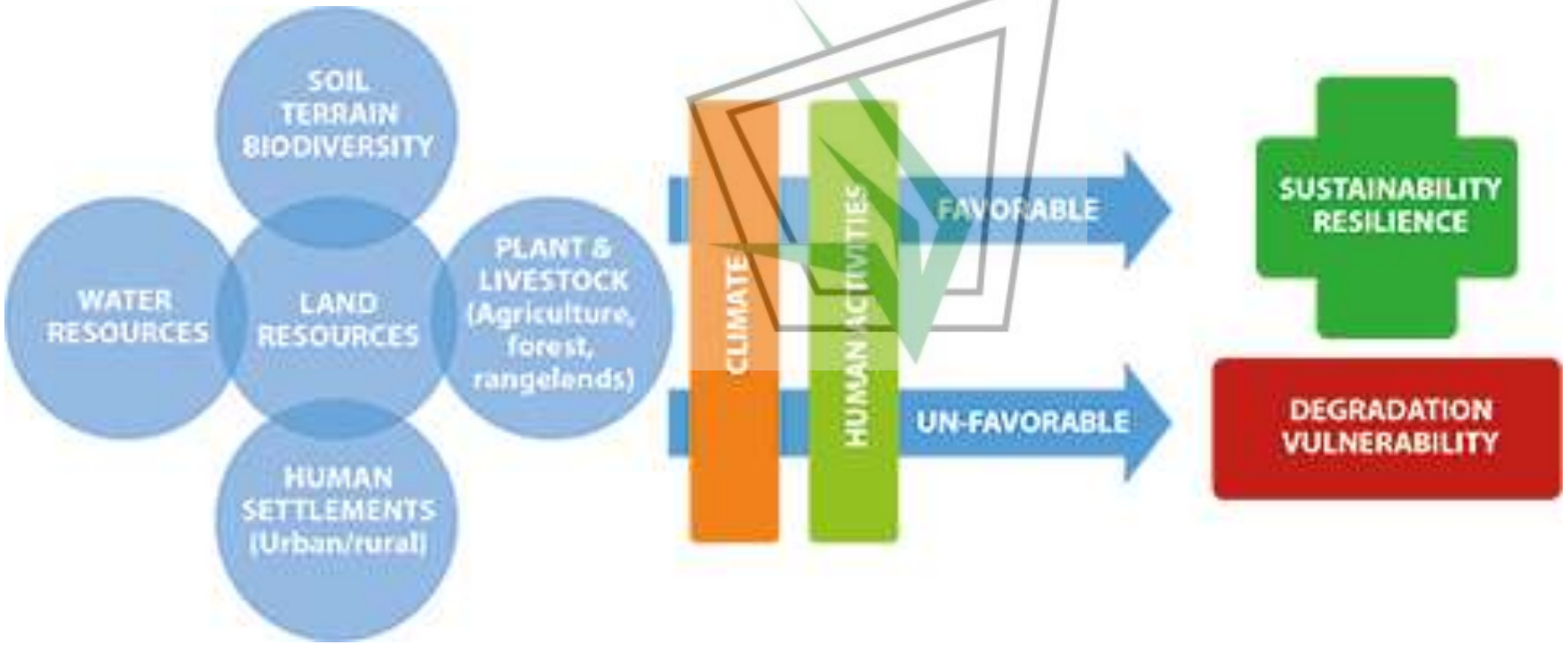
- In communal use situations an individual herder has no incentive to limit his or her stock numbers in order to conserve the range resources, if other herders are able to increase their herds to take advantage of the additional forage made available by one farmer's decision to hold down stock numbers.
- Hardin (1968) described the logic of over-exploitation of common resources, including communal pastures, as the **tragedy of the commons.**

# UN definition of SLM

*"the use of land resources, including soils, water, animals and plants, for the production of goods to meet changing human needs, while simultaneously ensuring the long-term productive potential of these resources and the maintenance of their environmental functions".*

# What is SLM then?

*Sustainable land use and management (human activities) decide the sustainability/resilience or degradation/vulnerability of land resources*




*Source: FAO, CLIMATE-SMART AGRICULTURE Sourcebook, Module B.7 Sustainable Soil/Land Management for Climate-Smart Agriculture*

# SLM working towards SDG's

# Goal 15 Life on Land: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

- Target 15.3. By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

  **Indicator 15.3.1:** Proportion of land that is degraded over total land area

- Target 15.8. By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species

  **Indicator 15.8.1:** Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species

# SLM is integrated and inclusive

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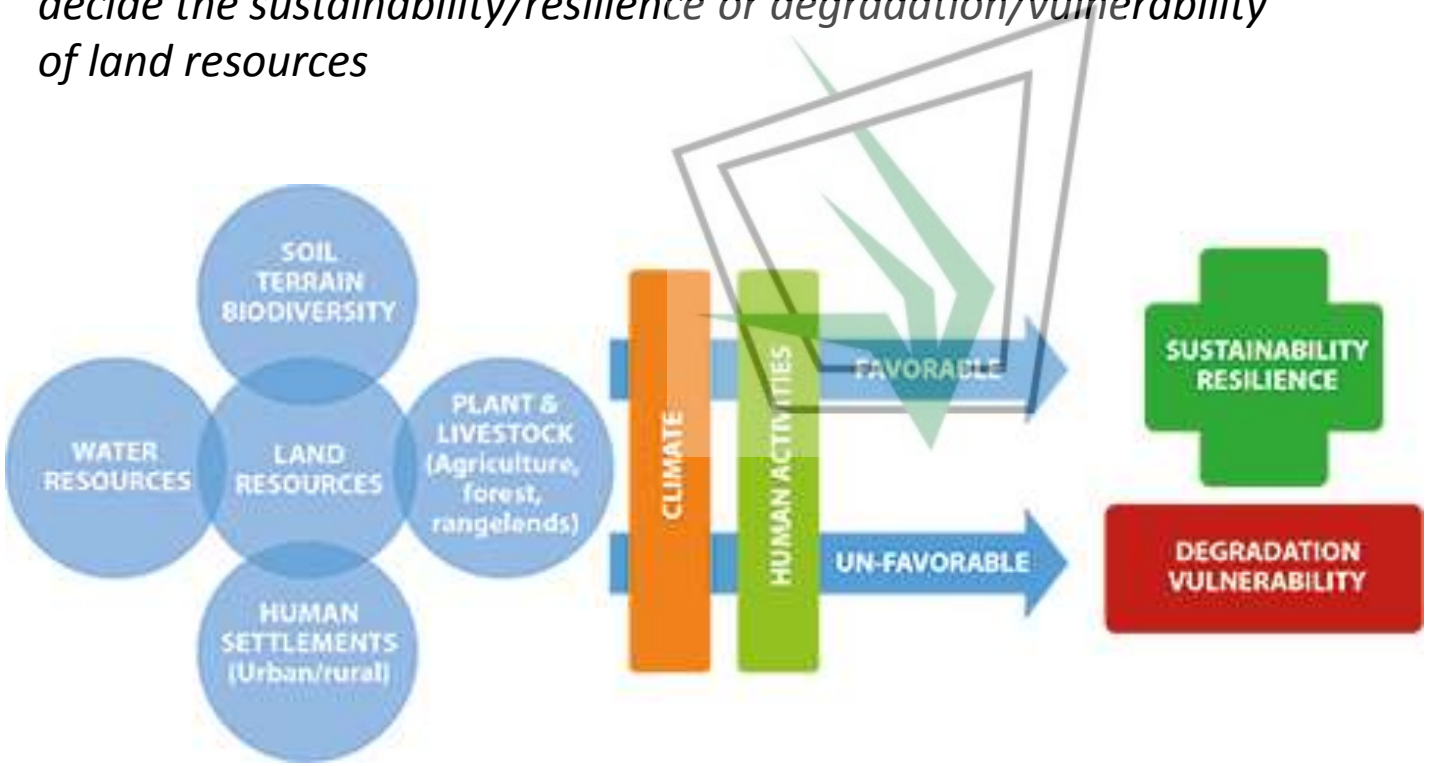


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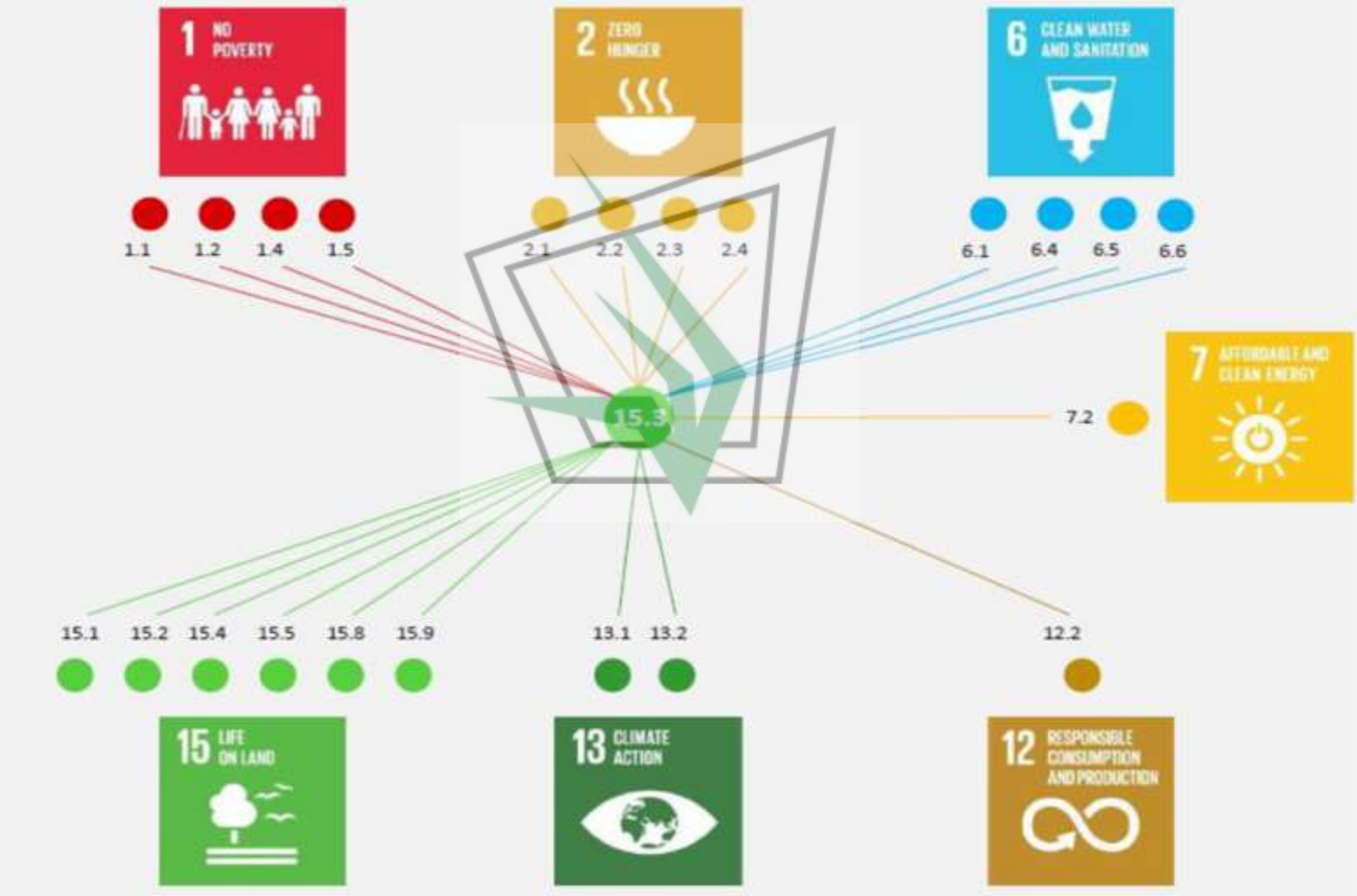
# Target 15.3 and its relation to other SDG's goals and targets



# Some important principles to keep in mind for the remainder of this session

- Always consider the four pillars of SLM:
  - Maintain and enhance production (productivity);
  - Reduce the level of production risk and enhance soil capacity to buffer against degradation processes (stability/resilience);
  - protect the potential of natural resources and prevent degradation of soil and water quality (protection);
  - be economically viable (viability);
  - be socially acceptable, and assure access to the benefits from improved land management (acceptability/equity)
- Any evaluation of sustainability has to be based on these objectives: productivity, stability/resilience, protection, viability, and acceptability/equity (Smyth and Dumanski, 1993)
- Sustainability can be achieved only through the collective efforts of those immediately responsible for managing resources. This requires a policy environment that empowers farmers and other, local decision makers, to reap benefits for good land use decisions, but also to be held responsible for inappropriate land uses.

# Important principles to consider

- Sharing responsibility for SLM: Farmers and land managers must expand their knowledge of sustainable technologies and implement improved procedures of land stewardship. The preferred option is not to tell the farmer what to do (command and control legislation), but to create an enabling environment through policy interventions where farmers are more free to make the right choice.
- Concerns for sustainable land management go beyond agriculture to include the legitimate interests of other aspects of land stewardship, including wildlife, water and biodiversity management.
- Integration of economic and environmental interests in a comprehensive manner is necessary to achieve the objectives of sustainable land management.
- The importance of off-farm income should not be underestimated because it i) supplements cash flow on the farm, ii) generates an investment environment for improved land management, and therefore iii) reduce production pressures on land.