What does the Grassland system look like in the 3 regions

Biophysical:

- Grassland can be Rangeland or managed pasture, covers intensive or extensive (low input) systems, is public or private owned,
- grassland is temporary or permanent, native or artificial,
- in low land or highlands (in highlands no alternative use)
- Understanding of grassland is different according to the regions the diversity is different according to the regions, it is a habitat for different species, farm animals and wild animals.
- It is used for grazing and|or production of winter feed. It provides forage but also ecosystem services.

Socio economic:

- Wide range of tenure/ownership - privately owned or cooperate farms or public owned grazing land (grazing cooperatives), communal tenures, conservation land (nature conservancy program),
- less productive land can be turned into conservation land, for which funds can be granted, where you are not allowed to graze, which has to stay for long term, management decisions are being made by owners or specific farm managers.
- Dairy farmer form cooperatives, own not only their farm, but also shares in milking plants (NZL).

- Farms produce feed on grassland, but also other services like environmental, biodiversity services, paid by government and the beneficiaries is the biodiversity and the society

Issues for topics and hot spots

- Degradation can be high in some regions, can cause problems of water quality, flood problems,
- Need to recognize that degradation is not only anthropogenic – it is also drive by climate (e.g. droughts)
- a lot of pasture is underutilized or abandoned, (e.g. in EU people have 2 jobs and neglect pastures).
- Invasive species and noxious weeds are a big problem.

- in Australia an important percentage of grassland is very degraded (13%)
- Europe has the undergrazing problem, which can cause fire problems, the decreasing of pasture surface and therefore of biodiversity.
- Some of the regions are being paid for ecosystem services, some are not, this is not always transparent, can affect competitiveness.
- In some intensive systems, high inputs will have impacts on N and C cycling, C losses.

Interventions to get over the issues

- Keep animals out of waterways, by offering alternative water sources,
- Riperian buffers
- fencing, putting water systems in paddocks
- stocking rate management, rotational grazing, spreading bales in different pastures,
- different management systems to prevent pollution of water, measurement and record keeping of nutrient balance on the farms, programs allowing producer to reduce stock without taking a loss in income,
- Increase productivity & increase added value – allow lower stocking rate without lower income [links to FA1 Closing efficiency gap]

Constraints:
- Knowledge is available, but not transferred, - processes for adoption & practice change are lacking,
- Extension challenges: decision makers are in different life cycles, have different access to knowledge and different willingness to change, producers are hesitant because of risks,
- Lack of farm system knowledge and application – lack of inter-disciplinary approaches - Systematic approach to landscape has to be improved
- Lack of awareness about full range of services extensive systems provide,
- incorporation of externalities into livestock products

- Co benefits of actions are not always well understood or utilized,
- systems are increasingly complex - we need tools and knowledge to assist with dealing with complexity
- Gap of knowing where we are, baseline is unknown, & speed & direction of change (e.g. trajectory)
- Risks and benefit of change must be quantified,