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## Background and Objectives

- Transboundary livestock mobility critical for sustainability of agro-/ pastoral livelihoods in West Africa as it enhances livestock productivity.
- Herders' utilization of animal genetic resources, rangelands, browse, and water along the mobility routes are poorly understood.
- Incidences of violence between transhumant herders and local farmers increase.
- We analysed:
  - uses and management of natural resources along the mobility routes;
  - effects of mobility on genetic structure and diversity of local cattle populations and productivity of livestock and rangelands;
  - interactions of mobile herders with sedentary agro-pastoralists and effects of exchange networks on local cattle diversity and productivity.

## Methodological Approach

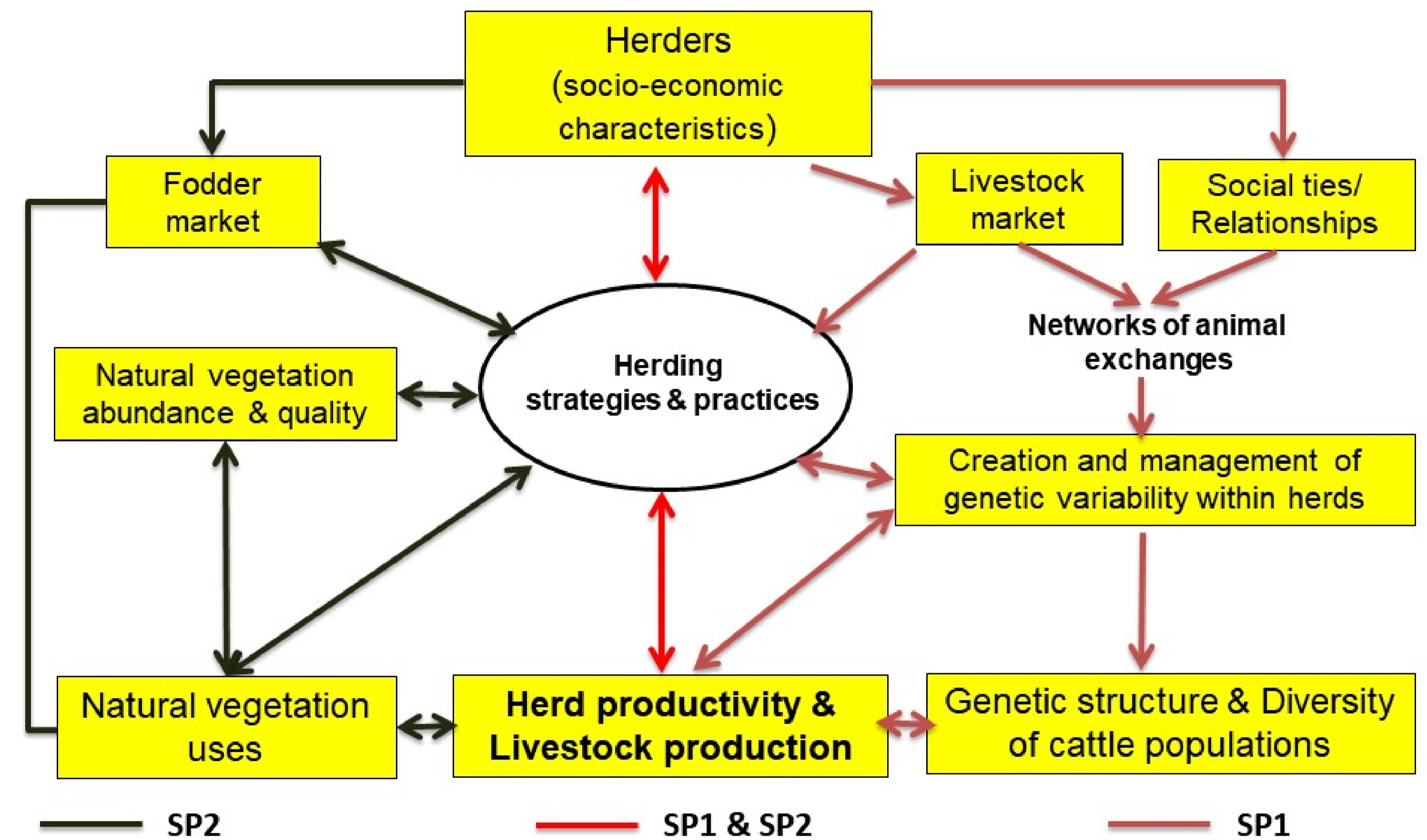


Fig.2. Linkages between the topics addressed by the two sub-projects (SP1, SP2).

## Project sites

- Eight sites in three vegetation zones of Benin (Fig. 1).
- Sites selected according to:
  - high presence of mobile herders from neighboring countries;
  - proximity of a regional livestock market;
  - presence and use of livestock corridors by mobile herders;
  - geographical distribution of local cattle breeds.
- Two complementary subprojects (Fig. 2) analyse the impact of transboundary mobility on genetic structure and diversity of local cattle populations (SP1) and on the productivity of rangelands and cattle herds (SP2).

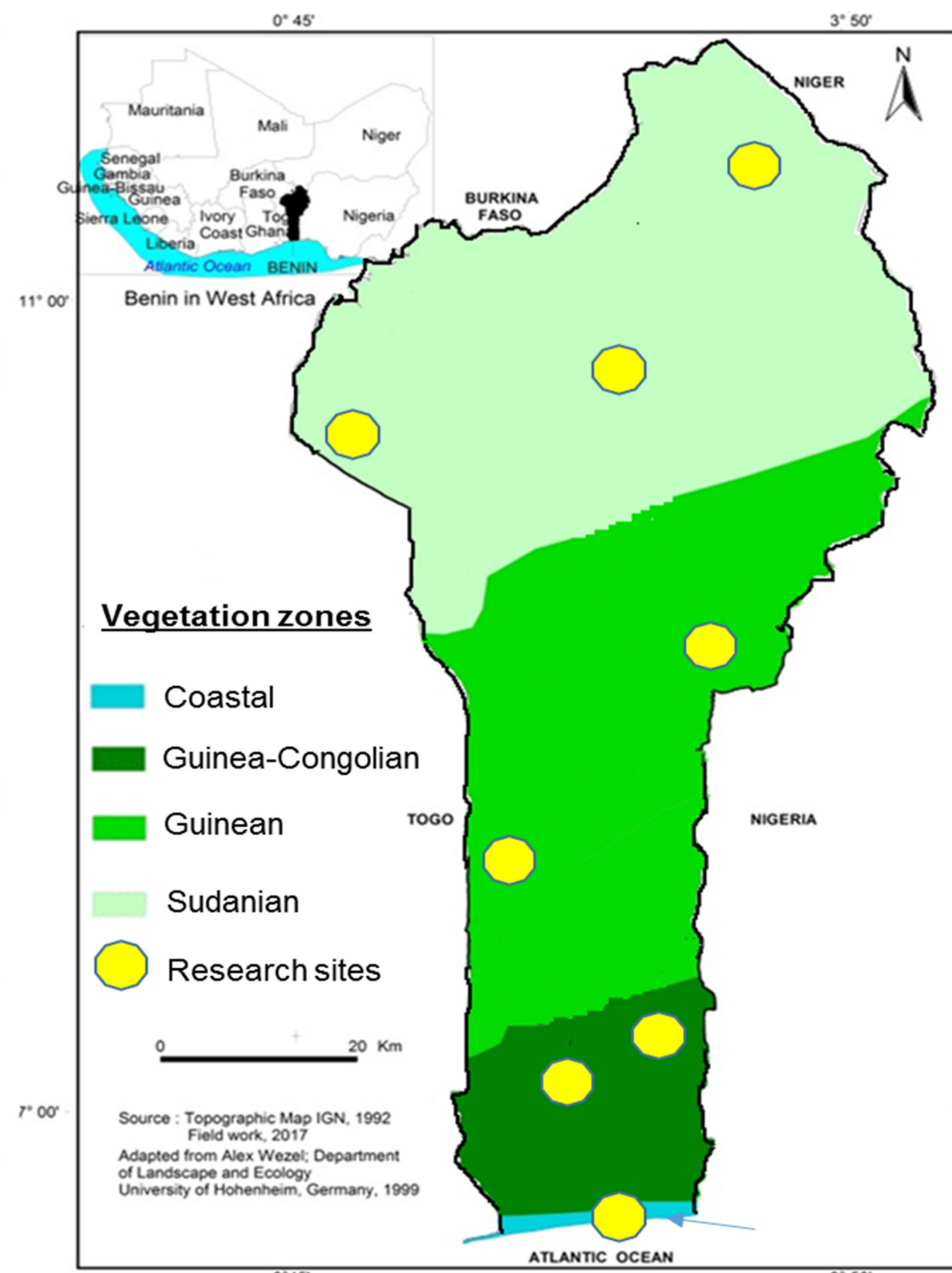


Fig.1. Study locations across the country of Benin (left) and typical scenes (right) from Sudanian (top), Guinean (center) and Coastal (bottom) zone.

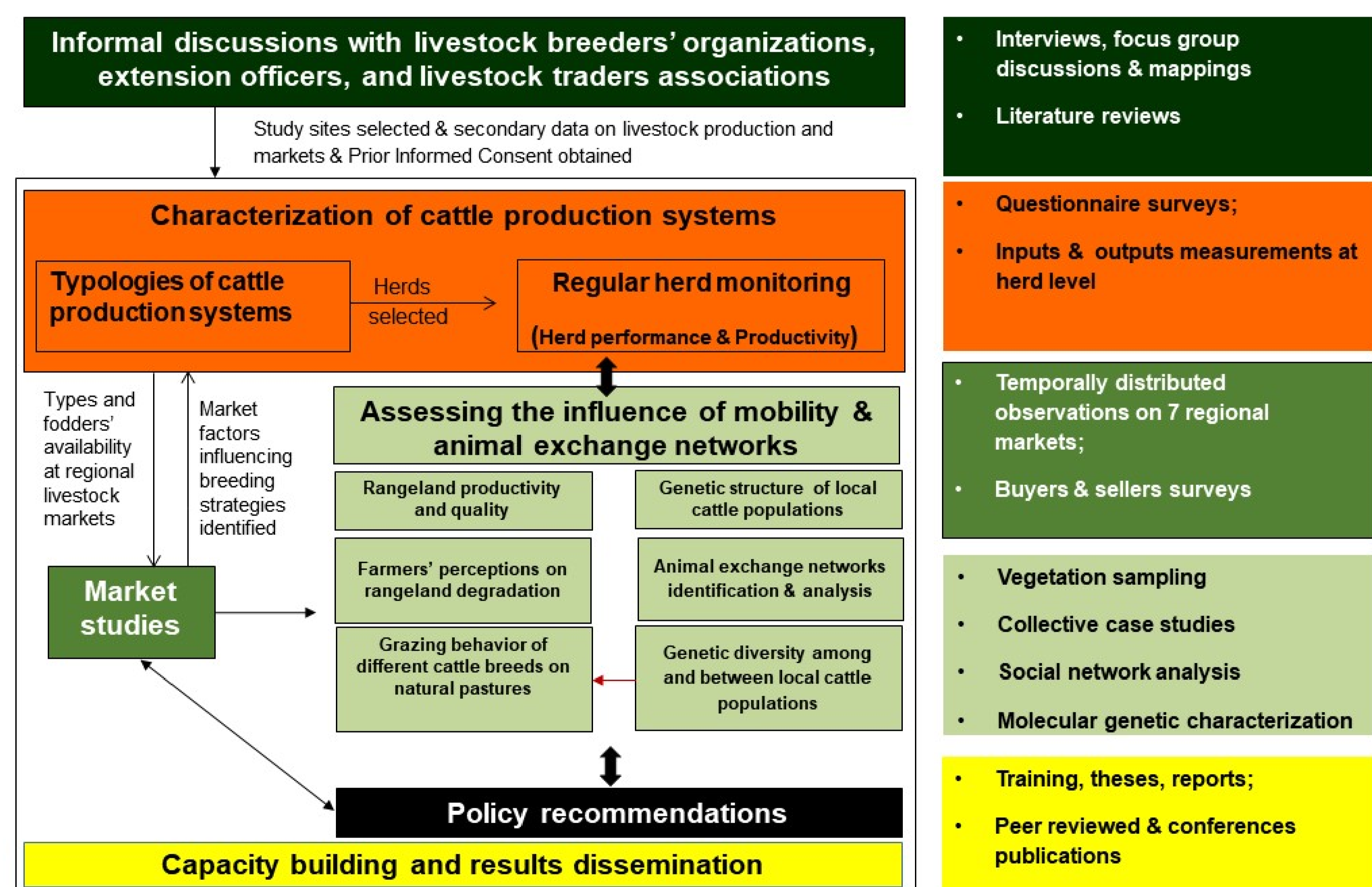


Fig.3. Flow diagram of project activities.

## Key preliminary findings

- Transhumant herds valorize uncultivated land, increase manure availability and create fodder market opportunities for sedentary population.
- Expansion of transboundary mobility towards southern sub-humid and humid zones of Benin.
- Trends of rangeland degradation and increase of non-palatable plant species detected along transhumance corridors.
- Competition between herders and agro-pastoralists for access to natural resources; increased sedentarisation of mobile herders and shift to agro-pastoralism.
- Sedentary cattle systems are diverse and extensively managed; they are dominated by taurine West-African dwarf breeds with lower productivity than transhumant zebu herds but achieve high market prices.
- Exchange of cattle between herders and agro-pastoralists changes genetic makeup and diversity of sedentary herds towards higher share of zebu.

## Funding



## In collaboration with

