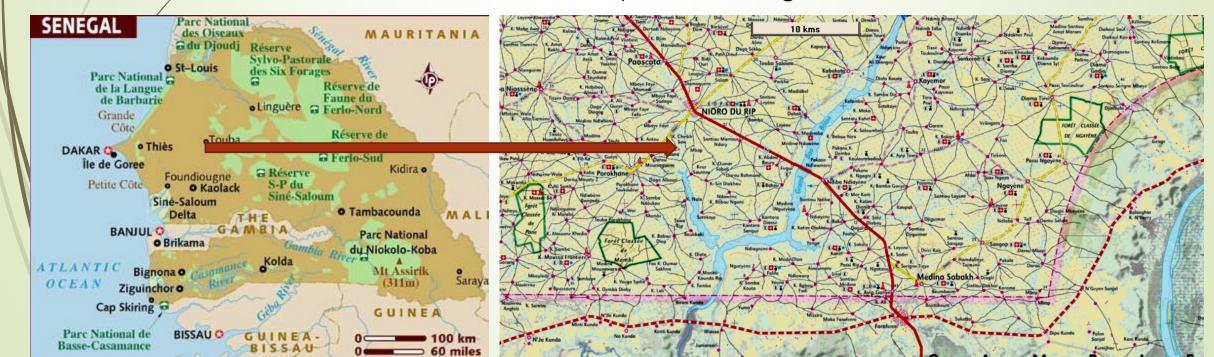
Biodiversity survey and mapping of soils for climate change adaptation

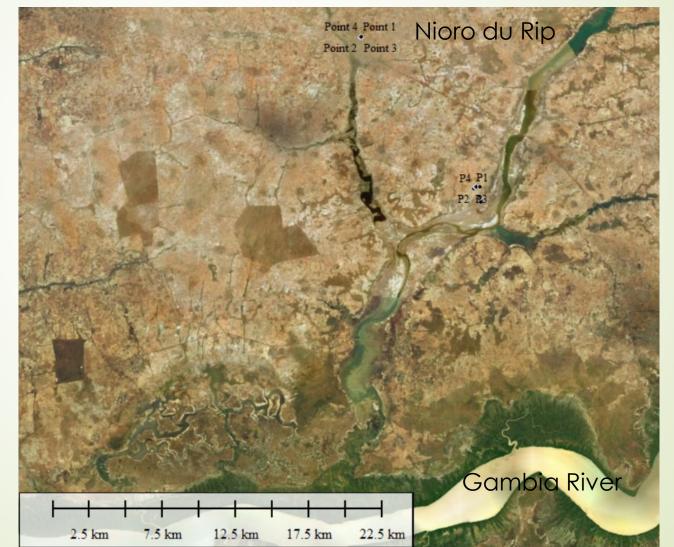
Hans Geisslhofer Horizont 3000 Roland Selinger space2live, on India

Senegal: Smartphone GPS mapping on salty soils for agroforestry and afforestation

Project for agro-ecologic action research in Nioro county Horizont 3000, Vienna Austria – Symbiose Senegal, Nioro



Project area near the Gambia border with sandy salty soils in advancing desertification



New SENTINEL 2 Satellite Images from 2018/19 showing saisonal vegetation change

Climate change causes irregular rainfall and desertification in traditional agriculture



Rain saison September 2108, Dabali Village



Dry saison of January 2019, Bands 11,8,2 enhancing agricultural activity

Peanuts monoculture under few acacias without fertilizers threatening soil fertility

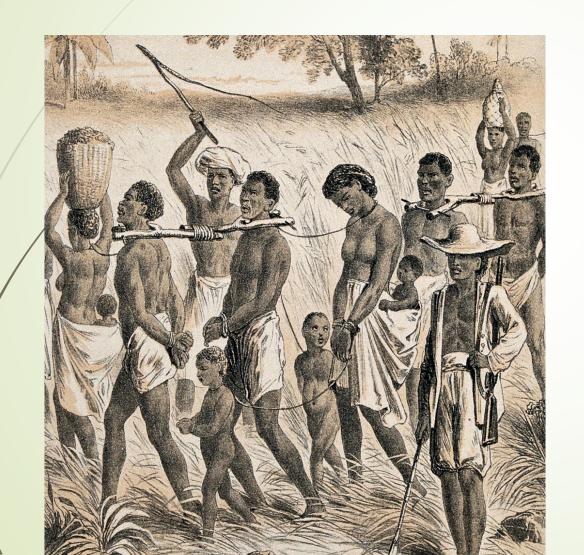




Planting 25 acacias/ ha, Nitrogen content of the soil can be compensated!

Agroforestry needs new space distribution by participative village planning

Colonialism had negative impact on village agriculture. Peanuts were basics for food industry





First seasoning on peanut oil base

- Laterit soil hardening and rainwater run-off on hills through deforestation
- Soil-salinization by rising seawater penetration through climate change





Overgrazing and bush fires are intensifying desertification, lack of water complicates irrigation and composting





"Symbiose-Senegal"promotes small vegetable irrigation at village wells with intercalary rows of trees for windbreak and

fruit production



Afforestation with Leuceana trees slows down the soil salinization.
GPS mapping allows for local land use planning

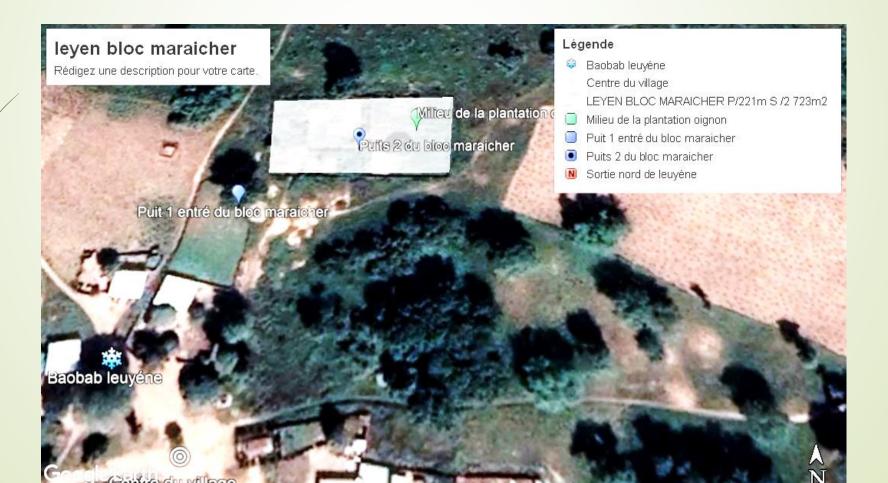


Small scale solar water pumping and village land use mapping enhancing project efficiency





Mapping training in Nioro, frst maps on Google Earth Pro based on accurate GPS survey



Soil Protection, organic agriculture and land use mapping in Tamil Nadu, India

Space2Live with Tamil Nadu Land Rights Federation





Harvesting millet an black grams in Sorayapattu Mapping Pamchami Land near granite mining



Figure 5: S2L-generated map of Sorayapattu's *Panchami* land and proximity of stone quarry.

