

Southern Cone Grasslands: What will we do with the other half?

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A week ago I was participating in a Seminar about “Pampas” in Porto Alegre city of Brazil, where several excellent presentations covered different issues on grasslands, its nature diversity, cultural aspects and specially threats. There was a recognized botanist riograndense showing us an amazing complex of endemic plant species in a given area of the Pampas of Brazil. She was extremely committed with the beauty and evolutionary significance of these small herbs, much of them only recently discovered. So she faced us seriously remarking: *“Now some people are planting exotic trees there ... I don t know why they are doing so, is nonsense”....*

Let me tell you that I know a lot of people, some of them goods friends of mine, who find a lot of sense in planting trees in those grasslands of the Southern Cone, under some of the world best conditions to a fast grow of Pinus or Eucaliptus. The sense of “profitability”, which for many of us, investors, banks, one of the more important senses in life.

Of course plantations so as the wide arrangement of annual crops (in general very good in converting money into more money), has to convert the grassland ecosystem into artificial systems, some times at the point of no way back, losing even its natural resilience.

This is a lecture about this impact in nature, in the biodiversity and also in our societies. About the sense, o nonsense of doing so... or better, to which extent...?

We have a roughly hundred million hectares of Temperate Grassland (from Sub-Arid to Humid [ranging 300 to 1500 mm of annual rainfall]; and from temperate to subtropical) in the Southern Cone of South America, including

- Argentina (58% or 58 million hectares)
- Uruguay (20 %)
- Brasil (18 %)
- Paraguay (4%)

Located around the main port area (shipping to the world) of the La Plata River, crossed by important rivers (Paraná, Uruguay, Paraguay), with fertile soils (some areas considered among the more fertile of the world), and without natural barriers such as mountains or dense forests, this “easy land” became the engine of the economy of our countries, almost since the beginnings of our short history after the conquest.

In the very beginnings was savage cattle grazing, but since the XX Century through the production of grain, with heavy machinery and a growing force of changing the

landscape. Some of the last incorporations were soy bean (20-30 years ago) and afforestation (15-20 years ago).










Commanded by the world's needs of food, the incorporation of technology, and recently the bio-based energy, plantations have already converted the half of the 100 million. The rest is mainly marginal and dedicated to extensive cattle grazing in still big properties.

But this is far from being a steady situation, since we are witnessing the historic highest rate of conversion with nearly a million hectares converted every year in the four countries.

For example, only in Brazil (RGS) crops and afforestation are responsible of the conversion 440,000 hectares annually (when they did at a rate of a quarter only five years ago).

Only Argentina incorporates 150,000 hectares new soy bean crops annually (part of them replacing grasslands, but also advancing the Chaco forests and open savannas through deforestation).

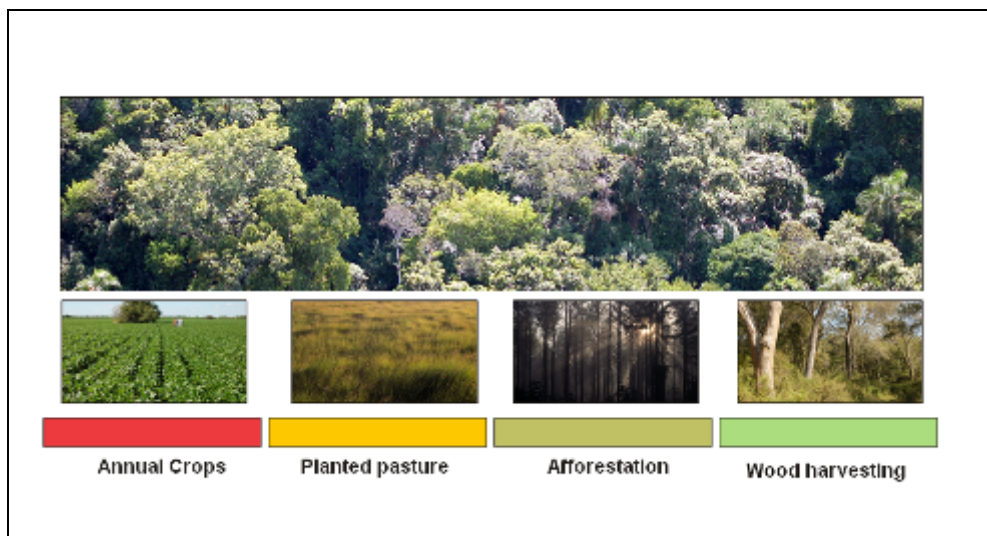
Let me show you a general model of impact to the four big ways of obtaining tradable products from the grassland landscape:

			
			
Afforestation	Annual Crops	Implanted pastures	Grazing in nature
Pinus eliotti, Taeda Eucaliptus	Soy, corn, rice Sunflower	Agropiro, Raygrass, Digitaria, Setaria	Natural fields Under grazing
Trees	Herbs	Herbs	Herbs
Decades	Years	Years	-
Punctual Heavy Suplies	Heavy Suplies	Low suplies	No suplies
No Resilience	Low resilience	Esportaneous resilience	-
Soil in darkness	Overexposed Soil	Good cover	Natural cover
Just in borders	Few species	Much species	Almost all especies
			

This model proposes that afforestation is the more impacting activity in the grassland landscape, mainly because two reasons: its entirely opposite physiognomy (forest instead of grassland) and the lifetime of the intervention (plus a result of the two, the lost of resilience capacity). You may probably accept that cash crops, basically herbaceous vegetation, is also severe in terms of impact because of the complete

replacement of the natural vegetal cover. But is also true that it “looks like” grassland for a portion of the grassland biodiversity arranges, and can be annually rotated with pastures providing short term resilient figures).

But note that in the cases of natural forest conversion (for example the Paranaense Forest, next to the northern grasslands in our region) the model turns into this other situation in which crops, and also implanted pastures for cattle, could be considered more impacting than the afforestation, for the same previous reasons...



Once the basis of the upper class economy in our countries, cattle breeding in the pampas is experiencing a deep crisis, pushed into marginal areas by commodities production. Since protected areas are almost absent for grasslands (less than 1% of the total area) this tension in the “agricultural frontier” means the lost of grasslands biodiversity, and also its important ecosystems services.

Nowadays cattlemen are:

- Changing their activity (converting themselves into croppers).
- Selling the land to croppers or planters.
- Holding a traditional living, at least until the changes arrives probably in the next generation.

More than an economy sector crisis, this is beating the pulse of an environmental crisis.

But a small portion of them, like the people organized in a group called Apropampa in the area of Bagé (Southern Brazil), are *fighting* to maintain their traditional activity using modern tools, defending not only their economy but also the preservation of a culture and the biodiversity of the pampas (through an agreement with BirdLife and being part of the Alianza).

We face together two main challenges:

- 1) To increase production.
- 2) To bring more value to the beef, driven both the recognition of *quality* (direct prizing) and *environmental services* (indirect), as:
 - Carbon sequestration in roots and grassland biomass.
 - Capture, refill and filter of water into aquifers.
 - Fertile soils strategic reserve.
 - Exportation and importation of biodiversity: Migratory birds.
 - Seed and genetic bank, with diverse application.
 - Landscape preservation, culture tradition and tourism possibilities.

In times when the forces of the market, the arising business of bio-fuels and even the agenda of the government, are pushing grassland away through conversion.

And this is happening under no Land Use Planning strategy, leaving almost nothing to formal protected areas... The question is:

Don't we need a minute to re-think the course of the game? To think about the opportunity we are wasting aside with high quality cattle grazing as a main force to the other half, and trying to *mainstream* environmental substances into the already converted first one?

That's our challenge...!

Finally, for those who are asking themselves about the public sector, and his absence, I wish to remark some important recently reached keystones:

- An agreement of the Ministers of Environment under MERCOSUR towards grassland conservation (4 countries).
- A Memorandum of Understanding on (eleven) Endangered Grassland Bird under the Bonn Convention on Migratory Bird (4 countries).
- The IUCN strategy for conservation of Temperate Grasslands of South America (with participation of the public sector).
- The Calling from Barcelona (Motion) to the Mercosur countries in order to keep the grasslands safe.

Not a matter of celebration, let's hope that the half-way done allow us to see the tiny light at the end of the tunnel, in terms of Southern Cone grasslands conservation and wise use.