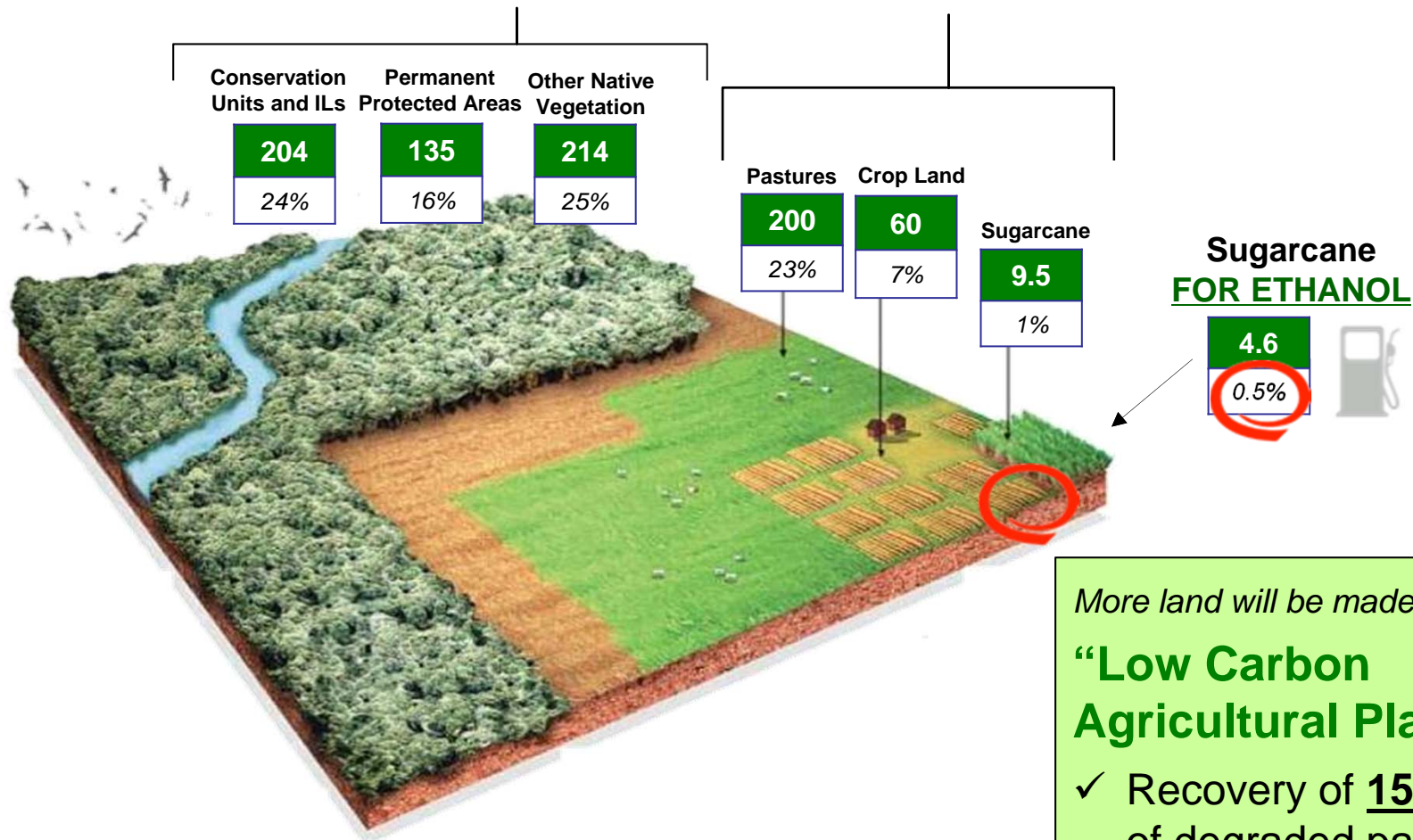


LAND USE IN BRAZIL

Million Ha*

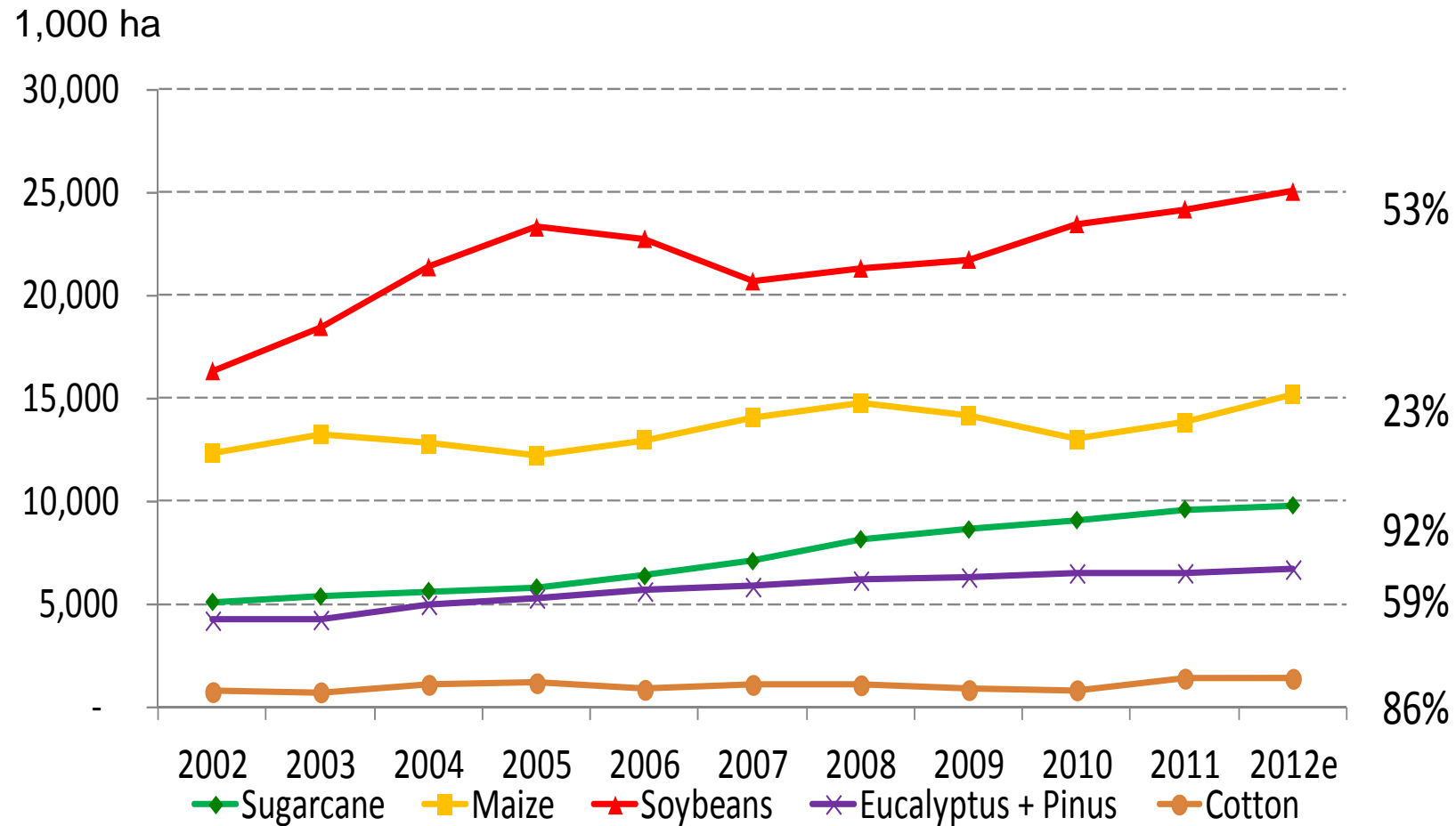
Total Area	Native Vegetation	Land in Actual Use	Other Uses
851	554	260	38
100%	65%	30%	5%



More land will be made available:
“Low Carbon Agricultural Plan”:
 ✓ Recovery of **15 million ha** of degraded pastures by 2020 (doubling its yields).

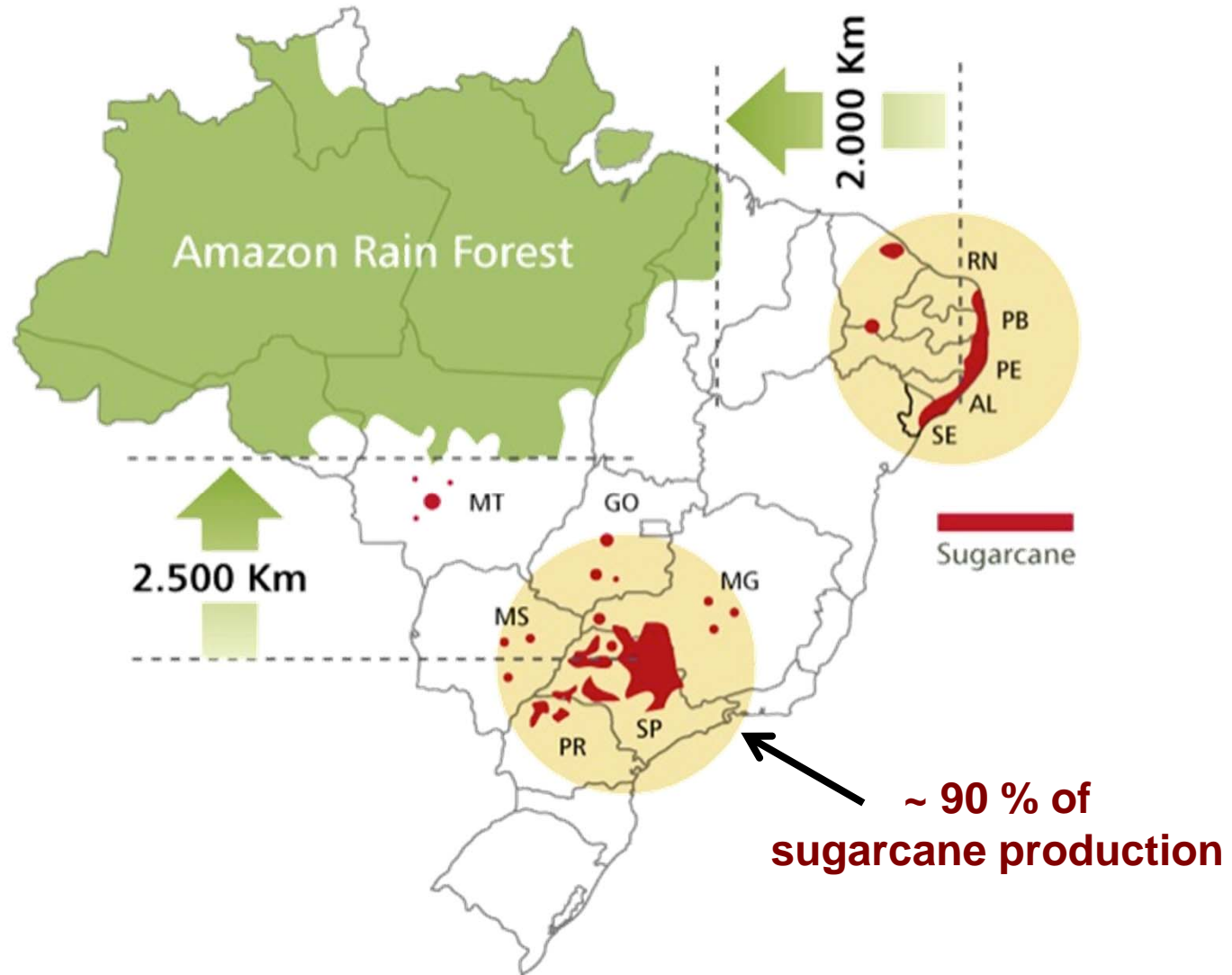
Source: ICONE, Gerd Sparovek, IBGE, MMA, INPE/TerraClass, Embrapa, PAM2010.
 Elaboration: Cosan and UNICA.
 Note: ILs = Indigenous Lands. Other Native Vegetation include Legal Reserves (RLs)

SIMULTANEOUS EXPANSION OF ALL MAJOR CROPS



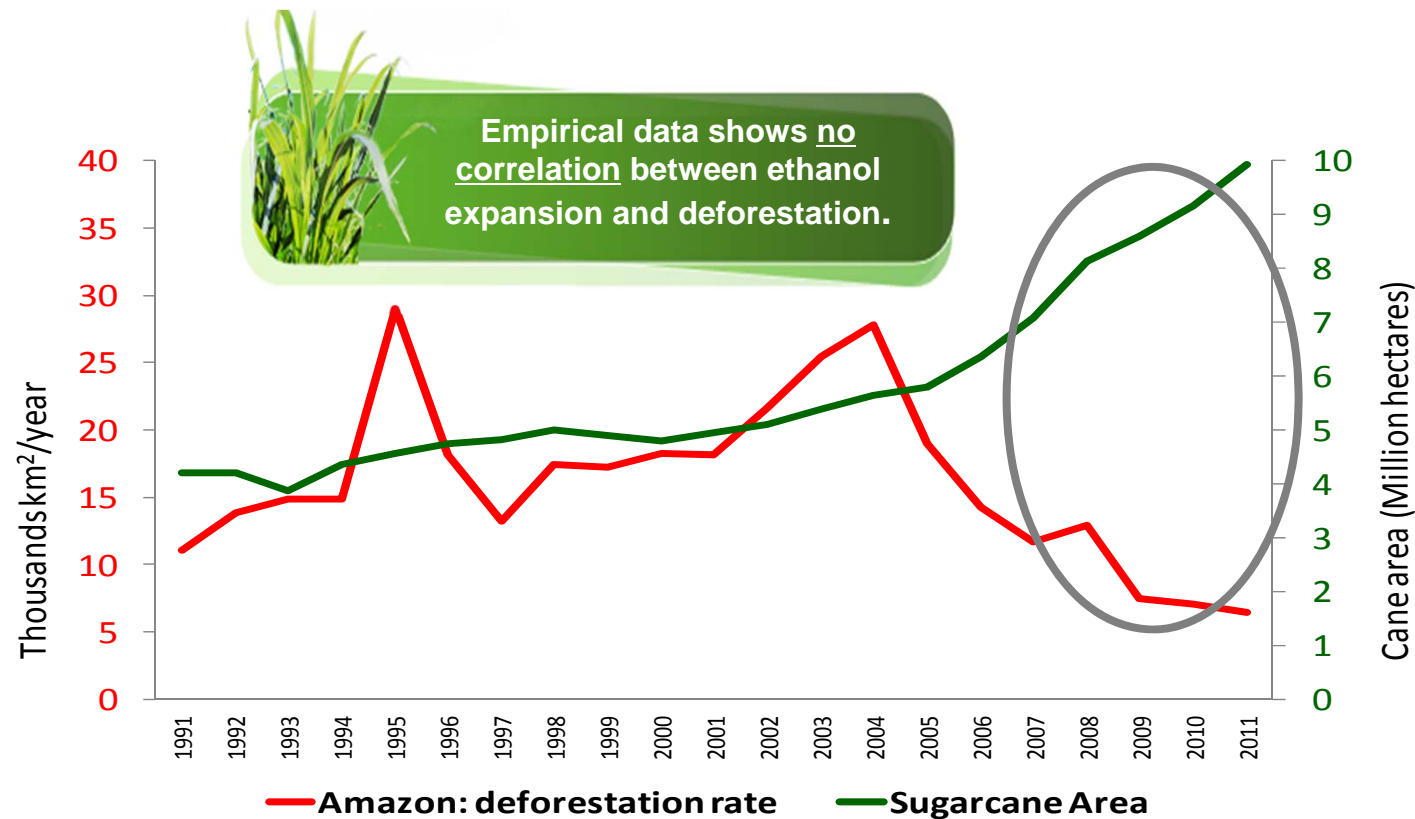
Sources: CONAB; IBGE; ABRAF; UNICA

WHERE IS SUGARCANE PRODUCED?



Sources: NIPE-Unicamp, IBGE and CTC

CANE AREA vs ANNUAL DEFORESTATION RATE IN THE LEGAL AMAZON

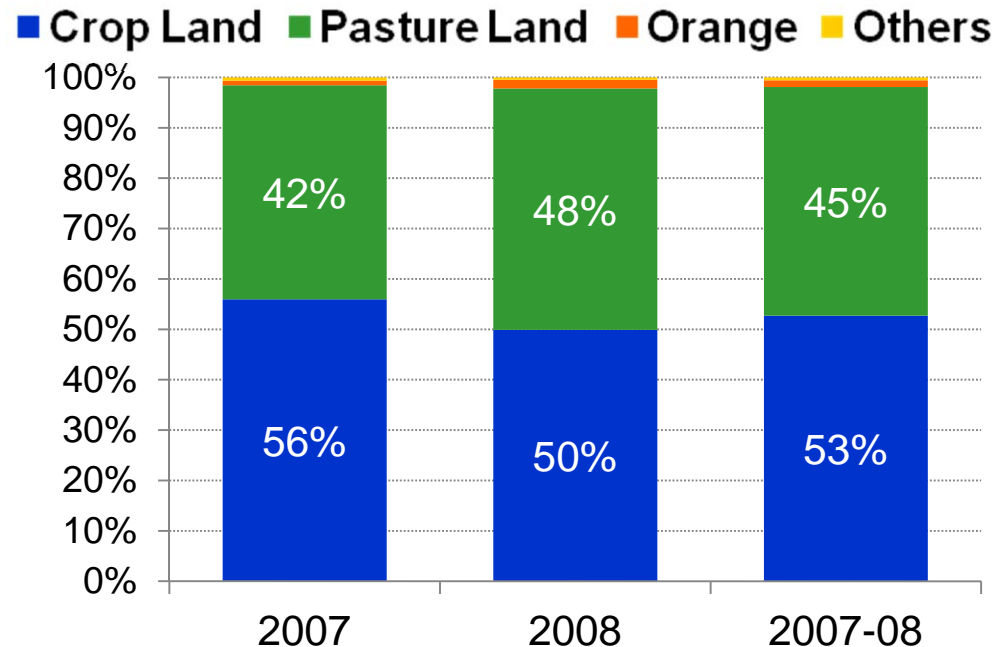


Brazil has a unique combination of:

- Availability of land not occupied with native vegetation => degraded pastures
- Large amount of protected native vegetation
- Agricultural sector with high productivity levels
- Strong conservation laws based on “control-command” enforcement

SUGARCANE EXPANSION IN THE CENTRE-SOUTH

An Example of Direct Conversion: Land Use classes converted to Sugarcane, 2007 and 2008

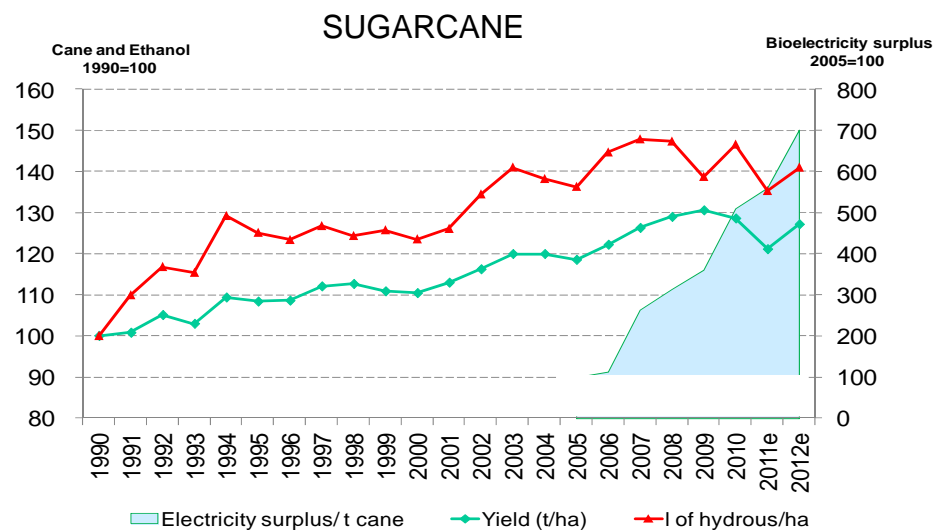
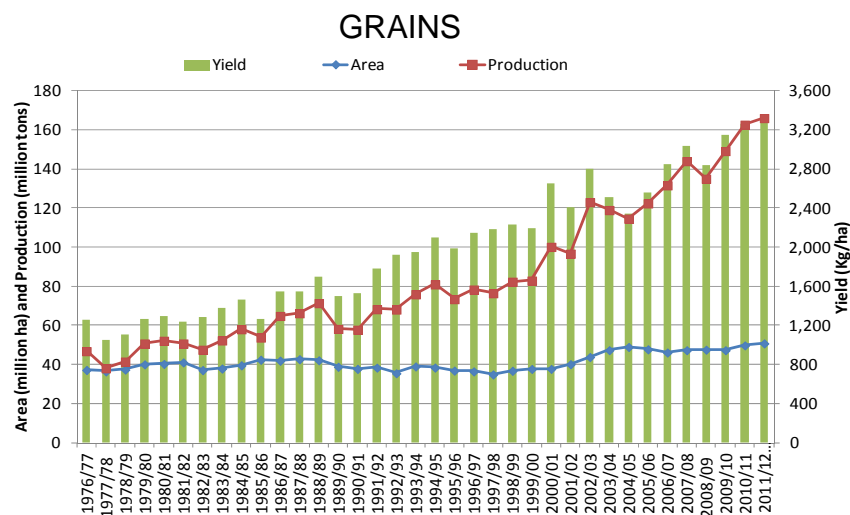


In all regions with important sugarcane expansion, grain production has expanded as well, both expanding in areas previously occupied by pastures and in all those areas the cattle herd has grown due to increases in productivity

Source: CANASAT/INPE, published in Nassar, A.M., Rudorff, B. F. T., Antoniazzi, L. B., Aguiar, D. A., Bacchi, M. R. P. and Adami, M, 2008. Prospects of the Sugarcane Expansion in Brazil: Impacts on Direct and Indirect Land Use Changes. In: Sugarcane Ethanol: Contributions to Climate Change Mitigation and the Environment. Zuurbier, P, Vooren, J (eds). Wageningen: Wageningen Academic Publishers.

Prepared by ICONE.

GRAINS, LIVESTOCK, SUGARCANE CAN EXPAND WITH YIELD IMPROVEMENT



LIVESTOCK	2002	2012	Variation	CAGR (%)
Pasture area (1000 ha)	184,037	180,785	-3,252	-0.14%
Herd (1000 Head)	185,349	213,239	27,890	0.98%
Meat production (1000 MT)	7,139	9,748	2,609	2.64%
Livestock yield (kg of meat/ha)	39	54	15	2.78%
Milk production (1000 liters)	24,172	33,996	9.824	3.6%
Milk production (liters/cow)	1,286	1,479	193	1.4%

Sources: CONAB; UNICA; IBGE; ICONE.