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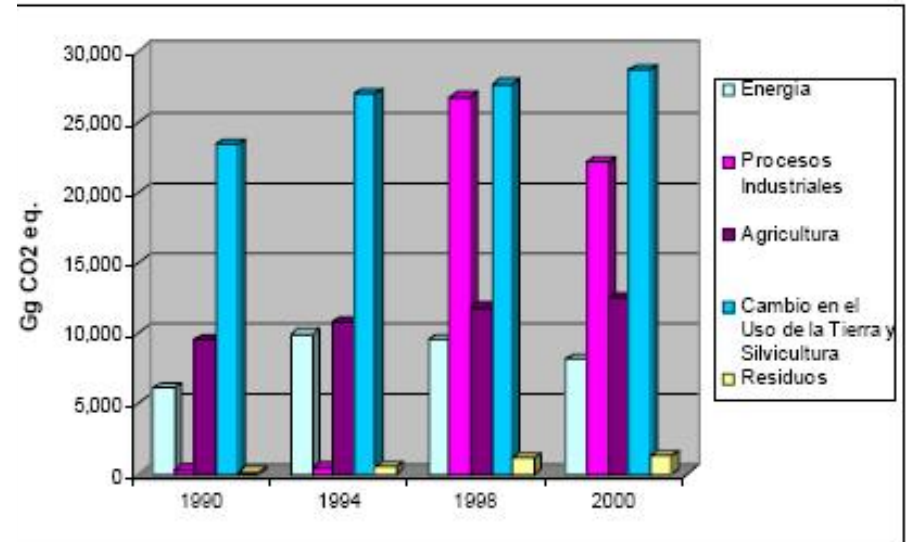
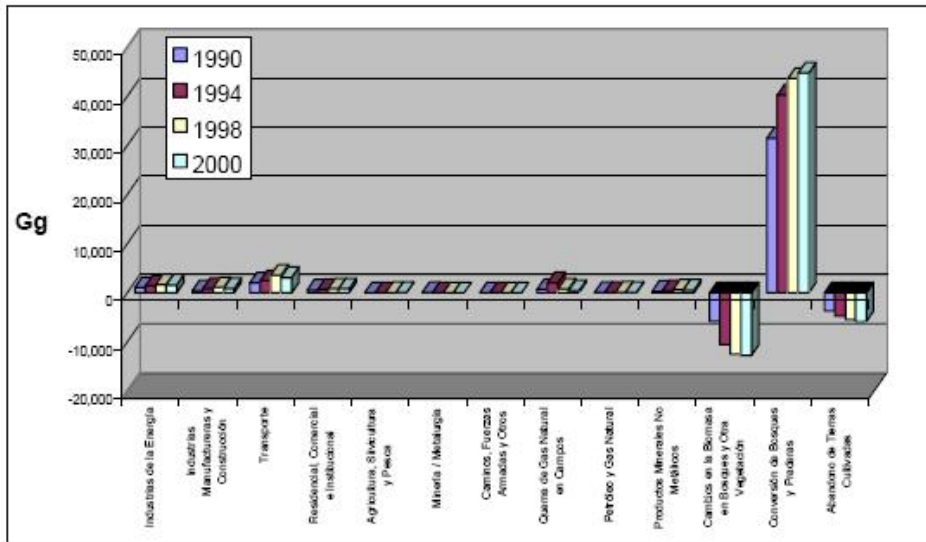
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Considerations on Low Carbon development . Perspectives from Boliviaq

Copenhagen, 12 January 2009

Javier Gonzales Iwanciw
ComunidAd . Bolivia

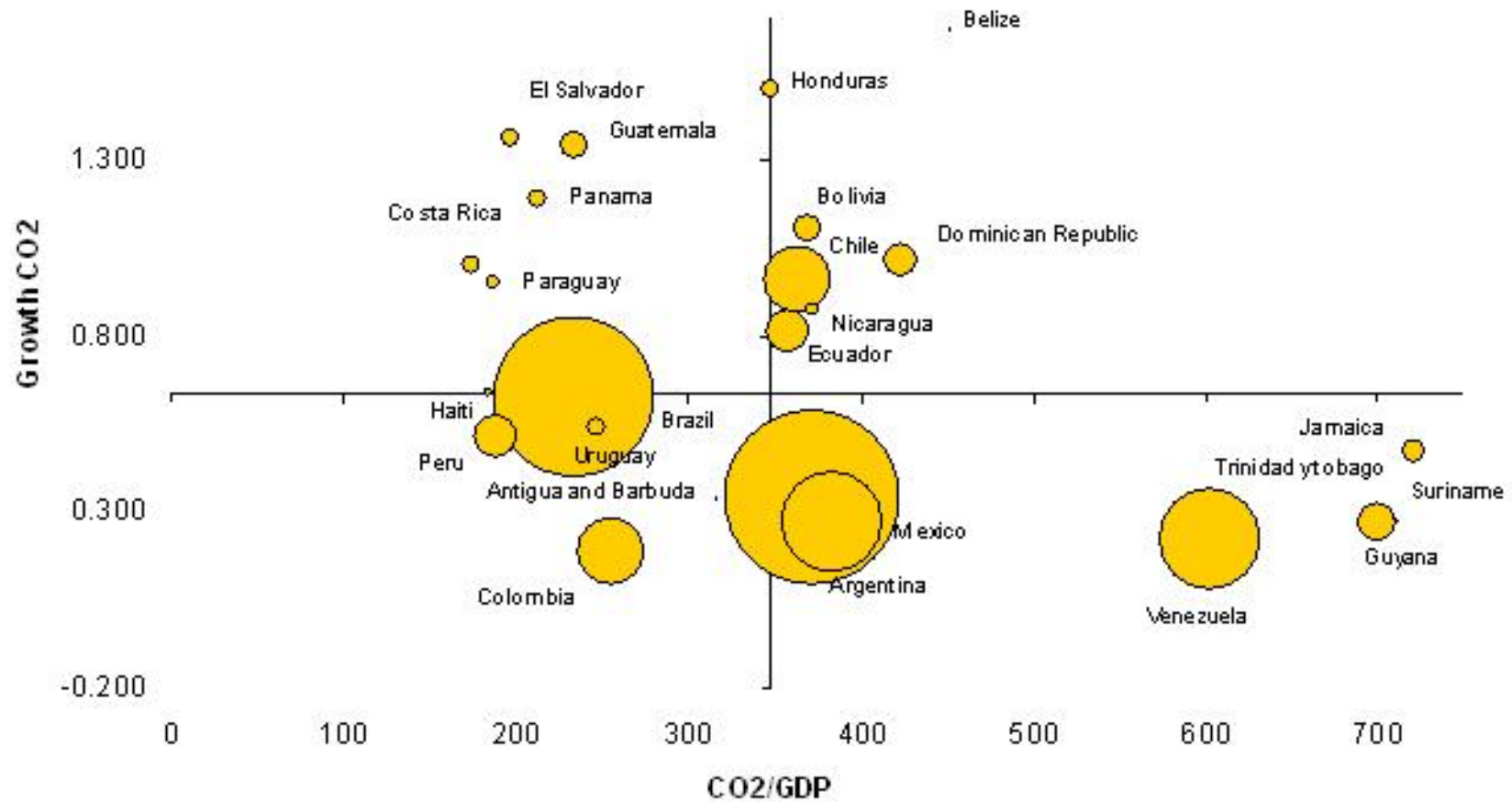
Perú: Greenhouse Gas Emissions 1990-2000 CO₂ equiv



Fuente: Elaboración propia.

Source: National GHG Inventory, PNCC

Energy-related CO2 Emissions: growth (1990-2004) and ratio of emissions to GDP (2004)

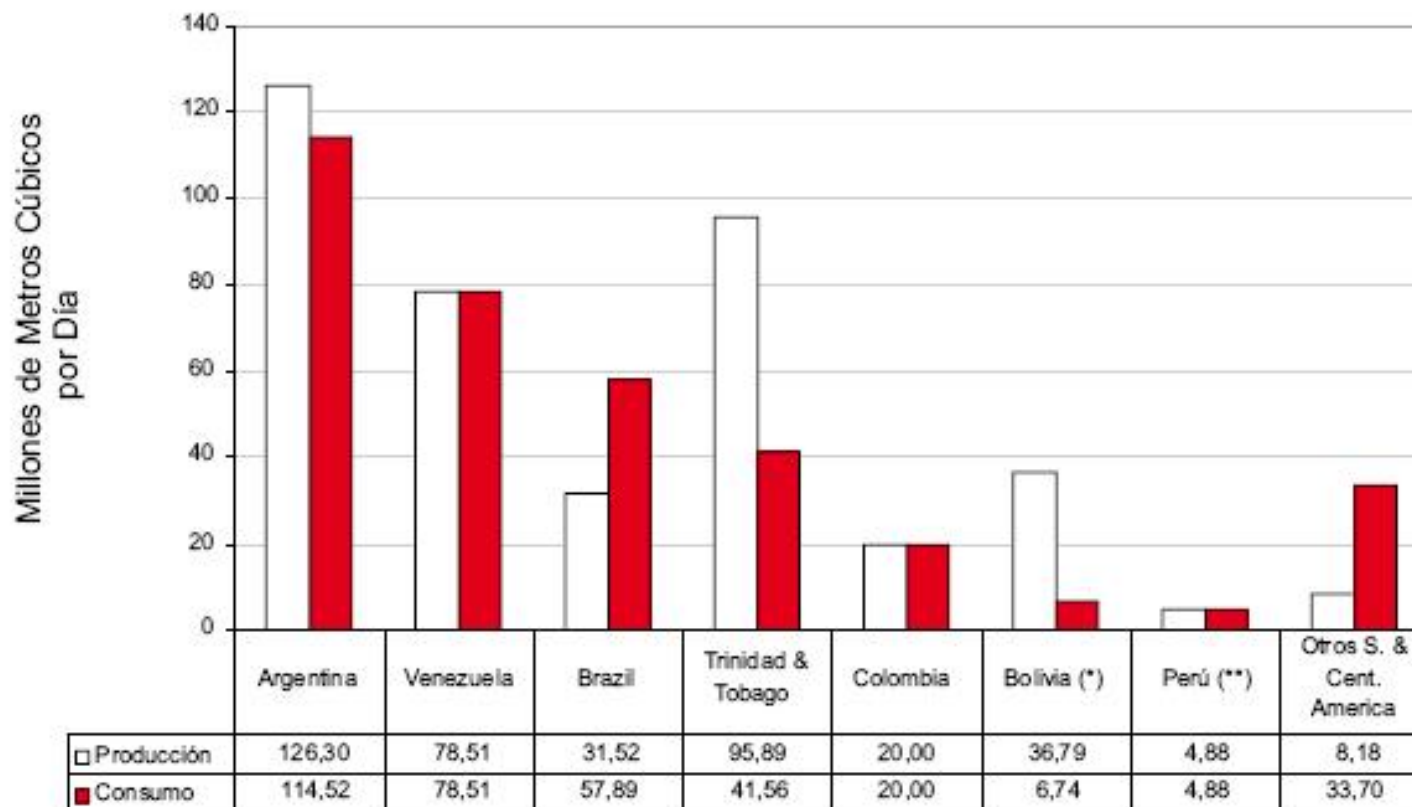


Source: World Bank 2008

Electricity Sector

Power Generation Capacity	<p>1.1 – 1.5 GW</p> <p>90% of the Power Plants are part of the GRID</p> <p>Public investments is about 80 – 100 MW/year</p>
Thermo Generation	<p>60%</p> <p>16 MW Dendroenergy</p>
Hydro Generation	<p>40 %</p> <p>Developments in Central Amazonia (Cachuela Esperanza in BOL pot. 600 MW (initial Phase 50 MW)</p>
Diesel generation	<p>10 % of the installed capacity are still off-GRID systems</p> <p>Diesel consumption is about 20% of the whole diesel consumption of the country (1.5 Mio BOE). In the next 10 years those systems will be integrated to the GRID.</p>
Renewable	<p>Some experiences with Wind energy but still legal barriers ,</p> <p>Rural pre-electrification (solar)</p>
Policy Stake	<p>Nationalization of Hydrocarbon exploitation increased national income from 500 Mio US\$ in 2005 to 2000 Mio US\$ in 2007, expectations and polemics around financial crisis</p> <p>Promote Natural Gas Consumption internally</p>

Production vs consumption of Natural Gas in some Latin - American Countries

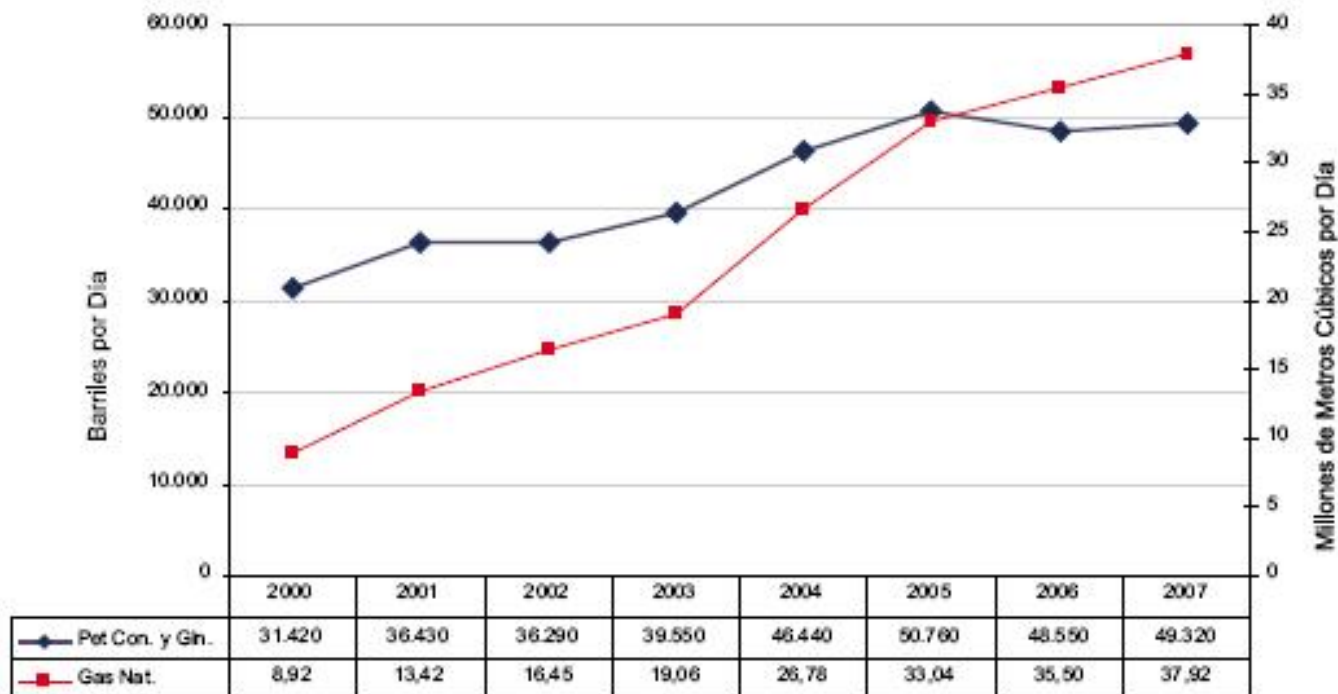


Fuente: VMDE en base a datos de British Petroleum.

(*) Los Datos para Bolivia fueron extractados de información de YPF.

(**) Los datos de Producción y Consumo de GN para Perú fueron extractados de Energy International Agency.

Oil, condensate, natural gasoline and natural gas production 2000 - 2006



Fuente: VMDE en base a datos de YPF.B.

Transport Sector



4.9 Mio BOE of
Diesel
3.8 Mio BOE
Gasoline
1.5 Mio BOE
Natural Gas

50 % of GHG
emissions of the
energy sector
(about 3.1 Mio

Still lack of
regulation for
further fuel
conversion into
GLP and Natural
GAS

Rural Energy



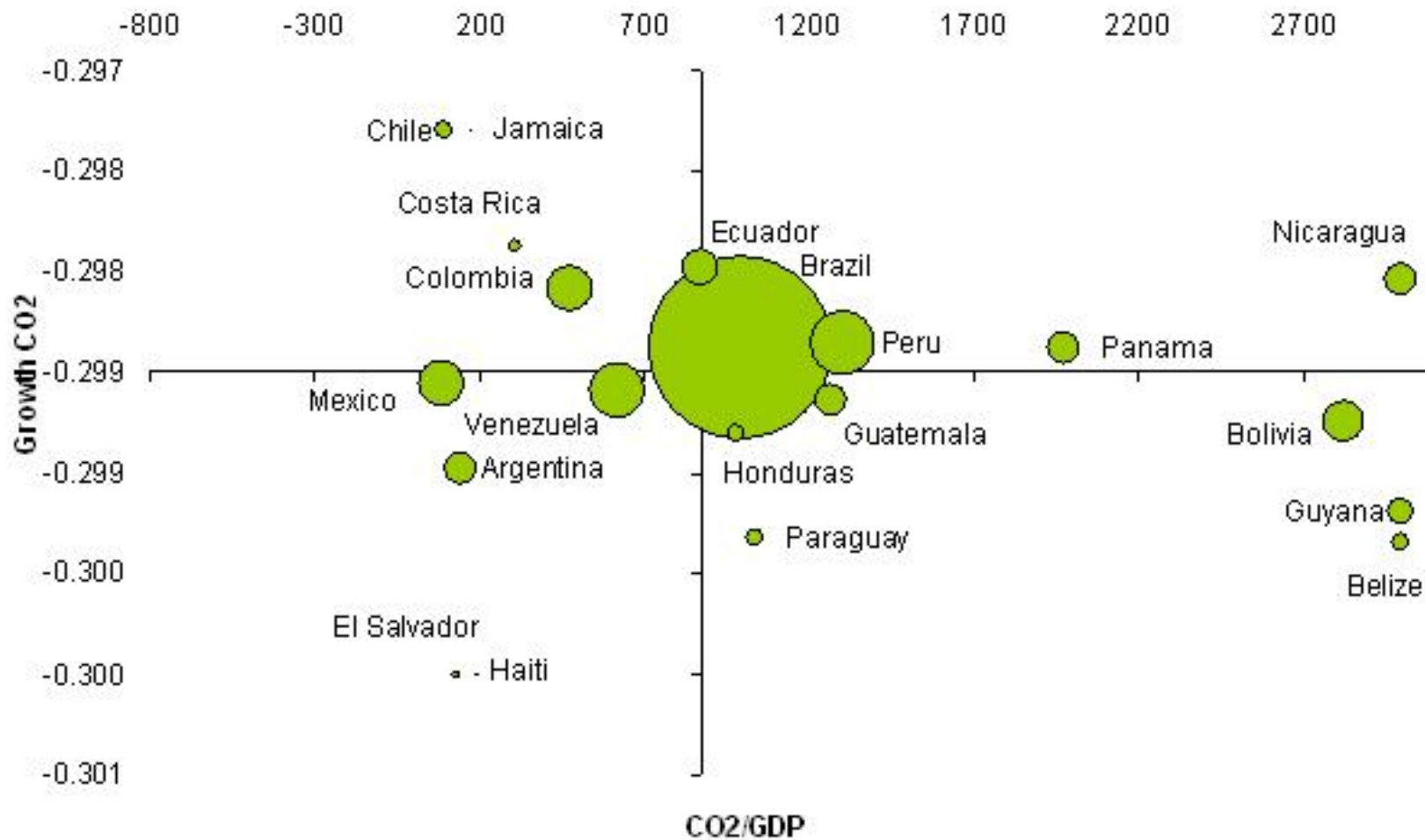
Biomass consumption is about 1.5 Mio t Firewood per year

30% of energy consumption in the country

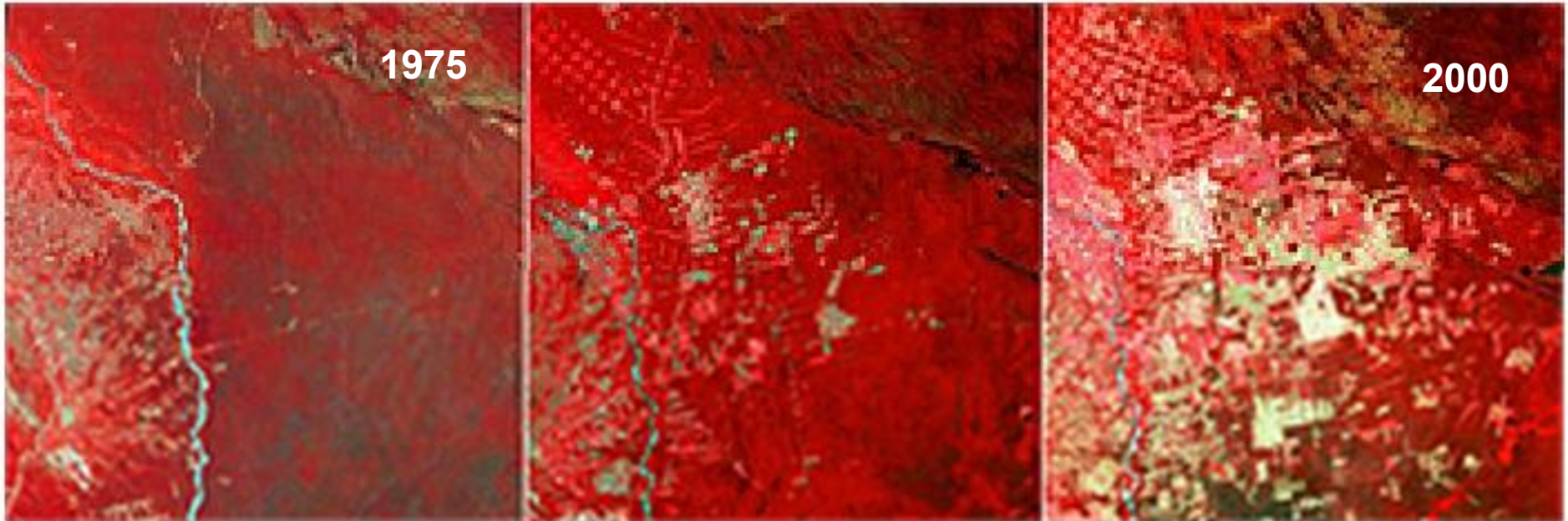
According WB Rural industries use about ½ Mio t of firewood equivalent to 80.000 Has/year Forest.

Financial mechanisms for energy efficiency and fuel switching are in place.

Land use change CO2 Emissions: growth (1990-2000) and ratio of emissions to GDP (2000)



Source: World Bank 2008



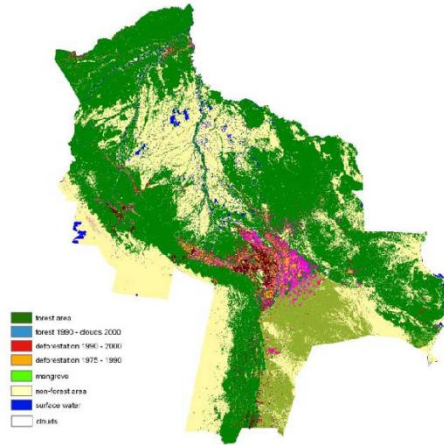
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Deforestation is about 270.000 Has/year

Aforestation and reforestation about 3.000 Has/year

Current efforts and potentialities

- “ REDD (2009-2012)
 - “ AIJ Experiences % Noel Kempf Mercado+National Park
 - “ Business alternatives (community involvements) in the forestry sector
 - “ Monitoring and regulatory system to control illegal logging
- “ Mitigative . adaptive measures at the level of municipalities
 - “ Municipalities are the LEGO pieces for regional strategies
 - “ Public-private partnerships
 - “ Environmental services and natural capital protection
 - “ Voluntary markets
- “ CDM
 - “ Electricity and waste systems
 - “ 35% of the credits for the CDM Office
 - “ Still some legal barriers
 - “ Transaction costs are so high

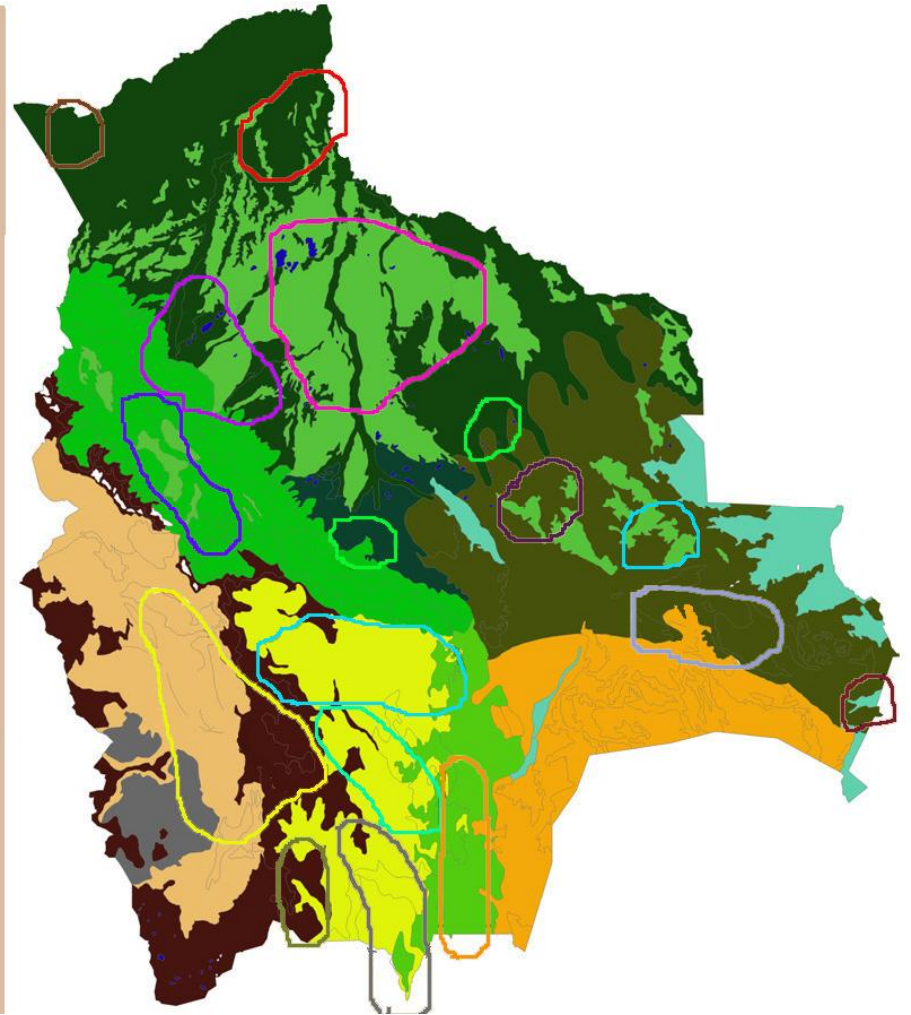
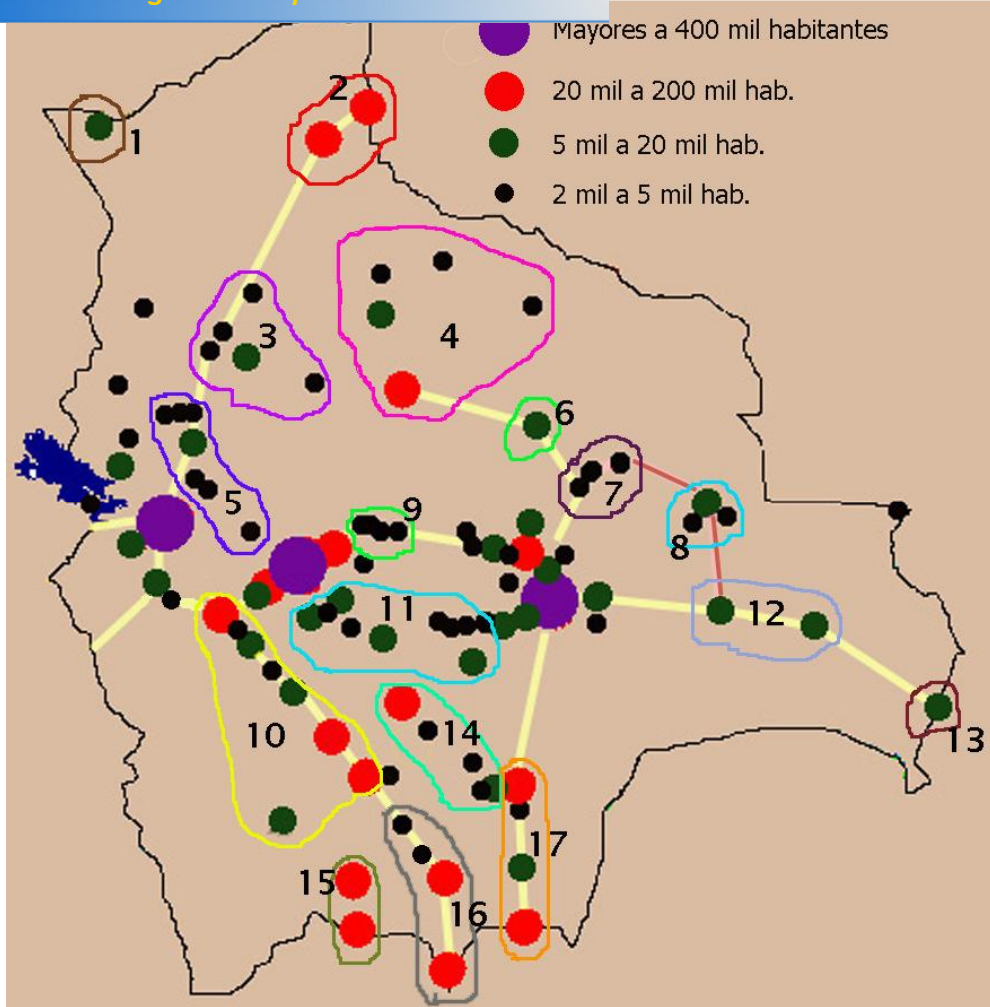


Noel Kempff Climate Action Project:

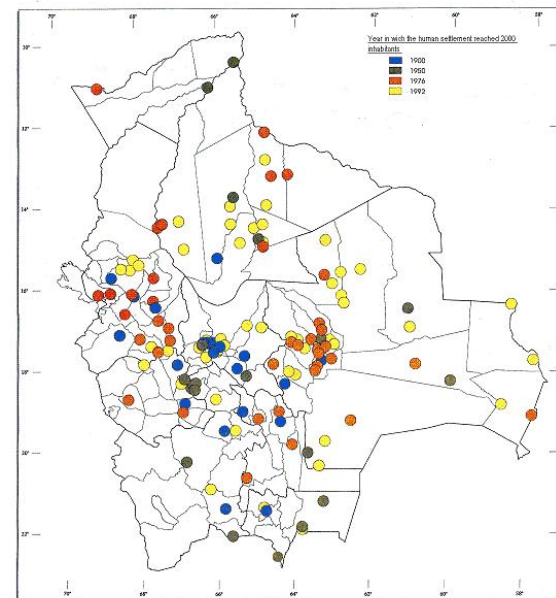
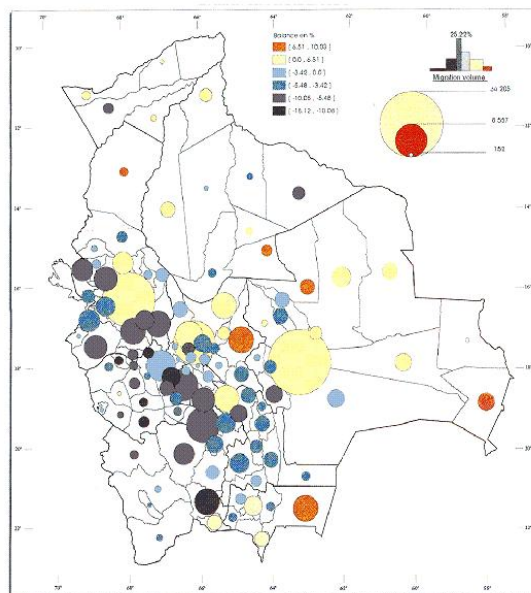
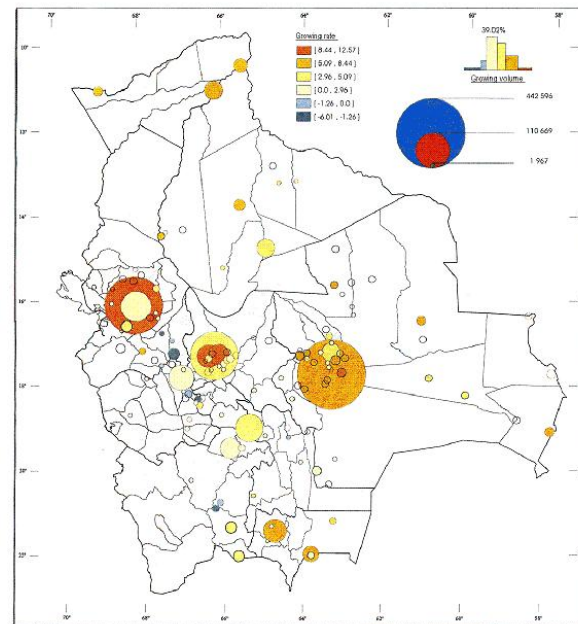
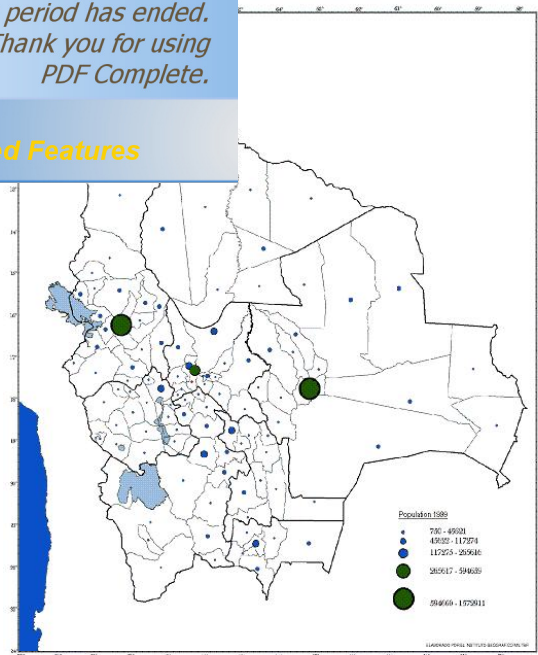
1.5 Mio Acres of Forest conservation
5.8 Mio t CO₂ in 30 years
1,034 Mio verified by SGS

Additional Benefits on

- biodiversity
- Indigenous Populations



Asentamientos Humanos
Fuente: Elaboracion propia



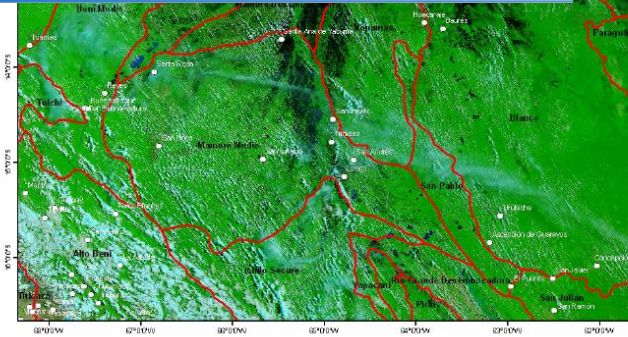


Figura 1: Área de la inundación
Fuente: Imágenes MODIS – NASA

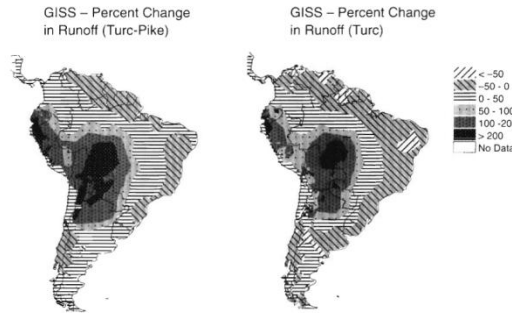


Fig. 6. Percent change in annual runoff over South America for the GISS climate scenario



Prehispanic raised fields in the region of Santa Ana de Yacuma, Department of the Beni, Bolivia
Source: Clark Erickson's Homepage

