BIOECONOMY AND BIOENERGY
STRATEGIES AND PUBLIC POLICIES
Argentina
Creation of the National Advisory Commission on Agricultural Biotechnology (CONABIA).

1991

“Argentine Bioeconomy Strategy”

Project for the promotion of energy derived from biomass - PROBIOMASA

2012

Interministerial Agreement
Argentina’s Bioeconomy Initiative

2016

Bioeconomy Promotion Program

Measurement of the Argentine Bioeconomy value chain.

2017

Argentine Bioproduct Program and Bioproduct Stamp

2017

National Bioeconomy Directorate

2018

Bioeconomy Innovation Roundtables

New conformation of CABUA and COBIOMAT

2020

Objective:
Conformation of the Bioeconomy Advisory Commission.
Plan of Action for the Argentine Bioeconomy

2021

Bioeconomy

2022

Innovation
Roundtables

CONABIA.

CONABIA.

INTERMINISTERIAL AGREEMENT ARGENTINA’S BIOECONOMY INITIATIVE

PROBIOMASA PROGRAM

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Argentina is a large agricultural producer of raw materials and manufactures residual biomass for bioeconomy.

**BIOECONOMY POTENTIAL**

- Agriculture
- Livestock
- Forestry

**BIOMASS** → **BIOENERGY**

Value added

- Energy crops
- Forest residues
- Agriculture residues
- Livestock waste
- Agro-industrial waste
- Forest-industrial residues

**SUPPLY**
51.4 MILLONES - tons/year -
Fuente: Probismas, 2019

**DEMAND**
10.2 MILLONES - tons/year -
Fuente: Probismas, 2019

**BALANCE**
40.4 MILLONES - tons/year -
Fuente: Probismas, 2019

Enhance National development scheme, setting a new goal for 2025, increasing the renewable sources participation at 20%. The law establishes "every regulated entity must achieve the minimum incorporation rate of 8% of the total own consumption of electricity, with energy from renewable sources, beginning December 31, 2017, and 20% by December 31, 2025"...

LAW 27640 (2021) - PROMOTES THE PRODUCTION AND USE OF BIOFUELS

- Mandatory use 12% bioethanol and 5% biodiesel (currently 12.5%)
- Definition of domestic prices for biofuels
- Quality standards
CURRENT BIODIESEL SITUATION

TOTAL PRODUCTION (2021)
1.70 million tons

Domestic Market
0.44 million tons

Internacional Market
1.26 million tons

PRIMARY PRODUCTION
(2020/2021)
Soybean production
46.0 million tons

INSTALLED CAPACITY
4 million tons/year
(2021)

REGULATIONS
National Law 27640
(2021-2030)
5% Mandatory Use

LAW 27640 (2021) - PROMOTES THE PRODUCTION AND USE OF BIOFUELS

✓ Mandatory use 12% bioethanol and 5% biodiesel (currently 12.5%)
✓ Definition of domestic prices for biofuels
✓ Quality standards

33 PLANTS

70% EMISSION SAVINGS
6.6 million tons CO₂ eq

MAGyP, 2022
Bioenergy Sector

MAGyP, 2016
Bioenergy Sector

Primary production concentrated in 300 km-

MAGyP, 2021

Secretaría de Agricultura,
 Ganadería y Pesca

Ministerio de Economía
 Argentina
CURRENT BIOETHANOL SITUATION

TOTAL BIOETHANOL PRODUCTION – 2021
1.0 million of m³/year

- **Sugar cane**: 474 thousand of m³
- **Corn**: 534 thousand of m³

Domestic Marquet (100%)

18 PLANTS

- 68% sugar cane
- 32% cereales

64% EMISSION SAVINGS
1.3 million tons CO₂ eq

LAW 27640 (2021) - PROMOTES THE PRODUCTION AND USE OF BIOFUELS

- Mandatory use 12% bioethanol and 5% biodiesel (currently 12.5%)
- Definition of domestic prices for biofuels
- Quality standards

REGULATIONS
National Law 27640 (2021-2030)

12% Mandatory use (6% corn - 6% sugar c.)

INSTALLED CAPACITY
1.5 million m³/year (2021)

PRIMARY PRODUCTION (2021/2022)*
- Sugar cane 22.3 million tons
- Corn 60.5 million tons

MAGyP, 2022
*estimated

MAGyP, 2016

SECRETARÍA DE AGRICULTURA, CRISTINA MEDINA
Ministerio de Economía
Argentina
CURRENT BIOGAS SITUATION

**BIOGAS POTENTIAL BY PRODUCTION**

- PORK
- DAIRY
- FEEDLOTS

- 870 THOUSAND households
- 280 THOUSAND households
- 1,25 MILLION households

**POWER GENERATION FROM BIOGAS**

- 28 OPERATING PROJECTS (4 MSW PLANTS)
- 70 MW OF POWER

**NORMATIVE**

National Law N°27.640 (2021-2030)

**Operating plants with more than 1000 m³ of reactor**

- Buenos Aires
- Córdoba
- Santa Fe
- Entre Ríos
- San Luis

870 THOUSAND households
280 THOUSAND households
1,25 MILLION households

28 OPERATING PROJECTS (4 MSW PLANTS)
70 MW OF POWER

BIOGAS
To achieve 20% of electricity consumption from renewable sources by 2025.

**RESIDUAL BIOMASS**
- in million tons per year -

<table>
<thead>
<tr>
<th>Primary production</th>
<th>Industrial production</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.4</td>
<td>10.1</td>
</tr>
<tr>
<td>Forestry: 3.2</td>
<td>Sugar mills: 5.5</td>
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<tr>
<td>Sugar cane: 1.9</td>
<td>Wood Industry: 3.1</td>
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<tr>
<td>Tea: 1.0</td>
<td>Peanuts: 0.3</td>
</tr>
<tr>
<td>Grapevine: 0.6</td>
<td>Ginneries: 0.2</td>
</tr>
<tr>
<td>Rice: 0.4</td>
<td>Wineries: 0.2</td>
</tr>
</tbody>
</table>

**DISTRIBUTION OF PROJECTS**

**POWER GENERATION**
- Number of plants: 15
- Installed power: 202.8 MW

**REGULATION**
- To achieve 20% of electricity consumption from renewable sources by 2025
From the **economic and social** point of view, the development of bioenergy in Argentina:

- Adds value to the chain production,
- Generates new industries and jobs, especially local employment.
- Promotes energy security.

From the **environmental** point of view, the development of bioenergy in Argentina:

- Reduces greenhouse gas emissions (GHG),
- Diminishes soil and water pollution.

**Bioenergy** and the **Bioeconomy**

- Bioenergy: both precursor and first-mover of the bioeconomy.
- Role of policy. Strategic Planning. Argentine case ▶️ biomass abundance.
- Role of policy. How to measure.
- Thoughts on the role of GBEP.
BIOFUELS DEVELOPMENT IN ARGENTINA – BIODIESEL

 Argentine Biodiesel Markets
- in thousand tons -

Total production capacity: 4.5 million tons
Total Investments: US$ 2.0 billion

Department of Energy - CARBIO
BIOFUELS DEVELOPMENT IN ARGENTINA – BIOETHANOL

12% - Mandatory use of bioethanol in 2022