



23 a 25 de maio, 2019
Marina da Glória - Rio de Janeiro

Action Plan in Science, Technology and Innovation in BIOECONOMY

Prof. Dr. Marcelo Morales

Secretary of Policies for Training and Strategic Actions
SEFAE - MCTIC

Rio de Janeiro, May 24th, 2019

MINISTÉRIO DA
**CIÊNCIA, TECNOLOGIA,
INOVAÇÕES E COMUNICAÇÕES**



GLOBAL CHALLENGES



CLIMATE CHANGES
AND GLOBAL
WARMING



DEMOGRAPHIC
CHANGES

Population growth
Increase income
Urbanization
Aging



INCREASED
DEMAND FOR
WATER, ENERGY
AND FOOD



DEPLETION OF
NATURAL
RESOURCES



DEVELOPMENT OF
NEW PRODUCTION
SYSTEMS

Lower environmental
impacts
Reduction of existing
pollution

BIOECONOMY EMERGES AS ONE OF THE MAIN DRIVERS
TO ASSIST IN SOLVING THESE ISSUES

Common aspects across the strategies:

- Add value to primary production
- Use of the waste streams
- Reduce the dependence on fossil raw materials, replacing with biomass
- Develop of new productive systems and business models

**INTENSIVE IN SCIENCE,
TECHNOLOGY AND INNOVATION**

BRAZILIAN SCENARIO



AGRIBUSINESS



TROPICAL
AGRICULTURAL
RESEARCH



BIODIVERSITY



PIONEER IN BIOFUEL
POLICIES



GLOBAL
RELEVANCE
ACADEMIC SECTOR



STRUCTURED
BUSINESS SECTOR

BRAZIL: NATURAL APTITUDE FOR
BIOECONOMY



National Strategy of ST&I – 2016|2022

Strategic Issues



Action Plan in ST&I



Bioeconomy

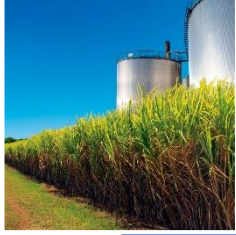


 SUSTAINABLE DEVELOPMENT GOALS



COP21 • CMP11
PARIS 2015
UN CLIMATE CHANGE CONFERENCE

ACTION PLAN OF SCIENCE, TECHNOLOGY AND INNOVATION IN BIOECONOMY



Biomass

- Inputs
- Integrated production systems
- Waste streams
- Genetic improvement
- Biodiversity sustainable uses and new biomasses



Processing

- Pretreatment and treatment technologies
- Bioremediation
- Technologies and inputs for bioindustries
- Pilot plant



Bioproducts

- Industrial biotechnology and synthetic biology
- Renewable chemistry
- Microorganisms and enzymes
- Biomaterials, biocompounds and its uses



Brazilian Bioeconomy Observatory
National Bioeconomy Committee

Transversal Issues

MINISTRY OF SCIENCE, TECHNOLOGY, INNOVATIONS AND COMMUNICATIONS

Research Units

INSTITUTO NACIONAL DE TECNOLOGIA **INCT**



INPA

INSTITUTO NACIONAL DE PESQUISAS DA AMAZÔNIA

...

Social Organizations



cgee

...

Funding Agencies



General Coordination of Bioeconomy

Public Policies

SPECIAL EVENTS IN BIOECONOMY

SEMANA NACIONAL DE CIÊNCIA E TECNOLOGIA 2019

**BIOECONOMIA: DIVERSIDADE E RIQUEZA
PARA O DESENVOLVIMENTO SUSTENTÁVEL**



**71^a REUNIÃO
ANUAL DA SBPC**

Sociedade Brasileira para o Progresso da Ciência
21 a 27 de julho de 2019 - UFMS - Campo Grande - MS



23 a 25 de maio, 2019

Marina da Glória - Rio de Janeiro

**Thank
you!**

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Rio de Janeiro, May 24th, 2019

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