



Ministério de
Minas e Energia



Expert workshop
How2Guide for Bioenergy
**Biomass resources and bioenergy potential in Latin
America and the Caribbean**
28-29 November 2014, Sao Paulo, Brazil

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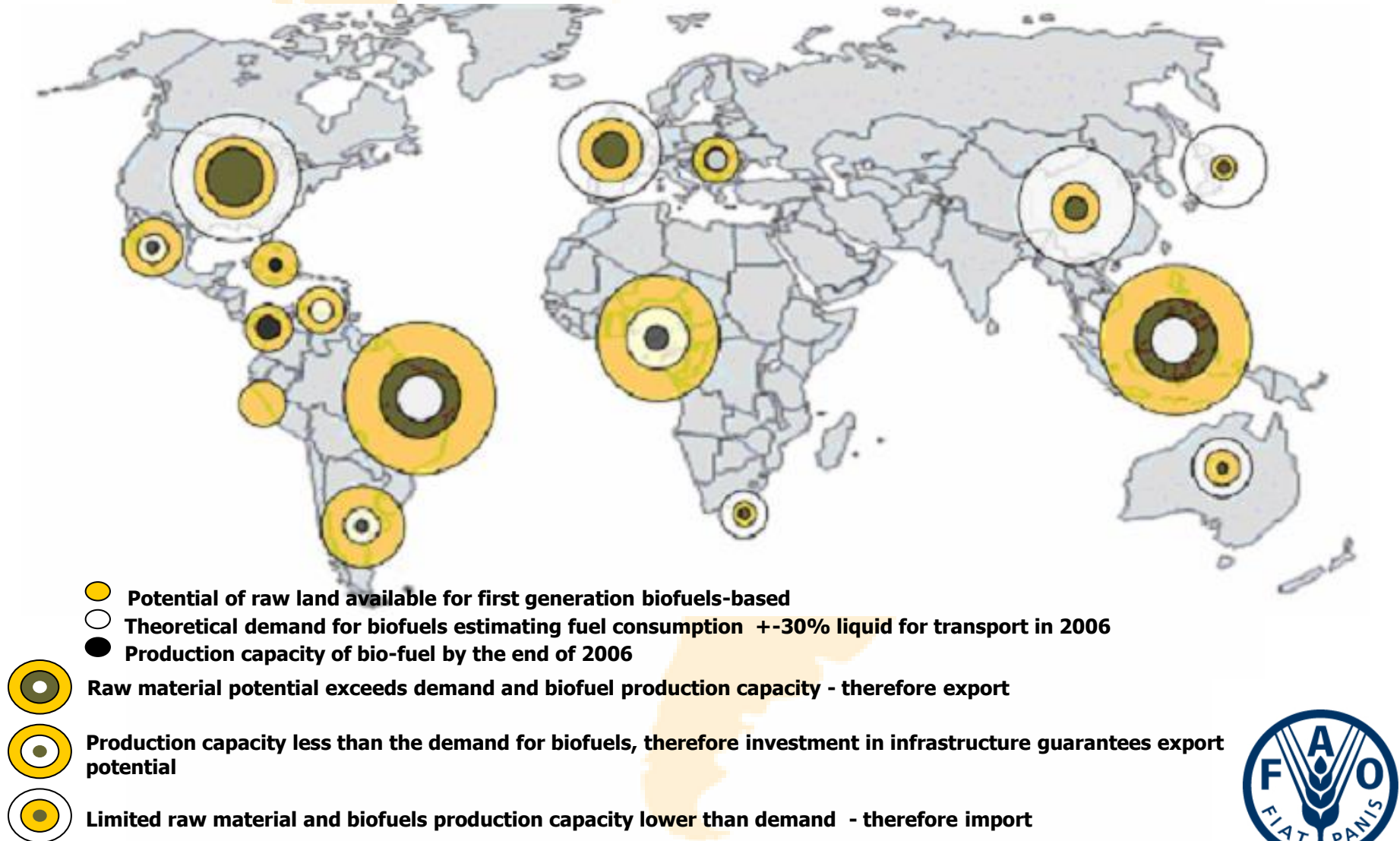


- 1. Overview of bioenergy, food security and linkages to food security**
- 2. Guidelines for Action in Latin America and the Caribbean**
- 3. FAO Tools**
- 4. Key Points for an Agenda**



Overview of Bioenergy and Food Security

First generation biofuels potential feedstock Production capacity and theoretical demand at the end of 2006 for selected regions



Source: Adapted from New Energy Finance www.newenergyfinance.com



Overview of Bioenergy and Food Security



Earth at Night
More information available at:
<http://seisweb.gfdl.noaa.gov/spod/sp400117.html>

Astronomy Picture of the Day
2000 November 27
<http://seisweb.gfdl.noaa.gov/spod/astro/a1.html>

Overview of Bioenergy and Food Security

Biomass, biofuels, bioenergy

FEEDSTOCK

Woodfuel and woody residues, crop residues, livestock residues, crops, food processing residues

Solid
Biofuels



Firewood,
charcoal,
briquettes



Heating and Cooking

Gaseous
Biofuels



Biogas,
syngas
(gasification)

Electricity

Liquid
Biofuels



Bioethanol,
biodiesel and
straight
vegetable oil

Transport



Overview of Bioenergy and Food Security

Food Security

....exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.

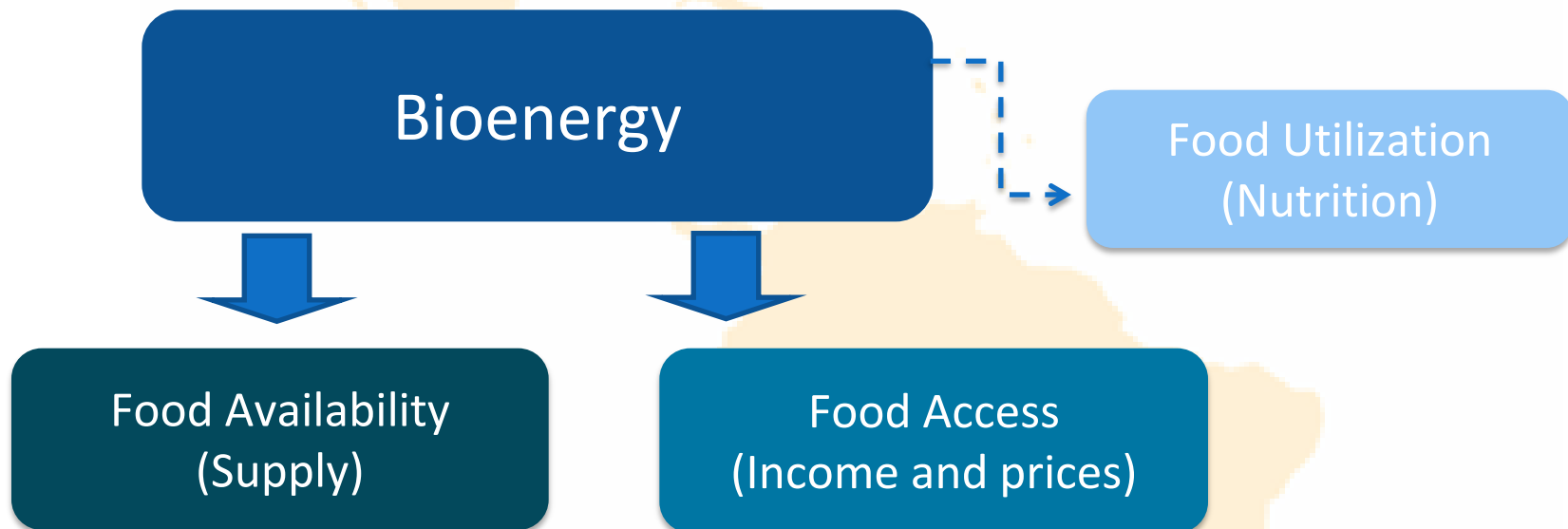
1996 World Food Summit held in Rome

the 4 dimensions of food security

- ✓ **AVAILABILITY** - Physical AVAILABILITY of food
- ✓ **ACCESS** - Economic and physical ACCESS to food
- ✓ **UTILIZATION** - Food UTILIZATION
- ✓ **STABILITY** - STABILITY of the dimensions



Linkages: Bioenergy and Food Security



Which options allow to integrate the energy and agriculture production systems?



To be defined which, if any, are:
Environmental sustainability, social acceptability,
and **economic viability** of the bioenergy sector “setup”



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Guidelines for Action in Latin America and the Caribbean



The new strategic framework 2014 - 2017

- 1.- Help eliminate hunger, food insecurity and malnutrition
- 2.- Make agriculture, forestry and fisheries more productive and sustainable
- 3.- Reduce rural poverty
- 4.- Enable inclusive and efficient agricultural and food systems
- 5.- Increase the resilience of livelihoods to disasters



The potential of the Bioenergy sector to reduce poverty and hunger, depends largely on the proper design and implementation of policies

(i) Development and land use policies

- agro - ecological restrictions
- incentives and penalties

(ii) Technological policies

- Raw materials research (small-scale and for small farmers)
- technologies for the chain agents



(iii) Products and services markets regulation policies

- **regulatory framework**
- **trade rules**
- **incentives and taxes**

(iv) Improvement of the contractual relations policies

- **the productive chain agents**
- **integration of small-scale agriculture**
- **labour rights protection**



Opportunities for Latin America and the Caribbean

- Sugar cane sector developed and competitive in most of its countries, capable of guaranteeing its internal supply and/or export ethanol to developed countries
- Production of a traditional oilseeds (soy, palm) in several of their countries, capable of guaranteeing its internal supply and/or export biodiesel or crude oils to developed countries
- Availability of land for expansion of production in several of their countries, without compromising the food agriculture



Guidelines for Action in Latin America and the Caribbean



PROTOCOLO DE INTENCIÓN DE COOPERACIÓN ENTRE ITAIPU BINACIONAL

Y

LA ORGANIZACIÓN DE LAS NACIONES UNIDAS PARA LA ALIMENTACIÓN Y LA AGRICULTURA (FAO) PARA EL FORTALECIMIENTO DE CAPACIDADES INSTITUCIONALES Y POLÍTICAS PÚBLICAS A TRAVÉS DE LA COOPERACIÓN SUR-SUR TRIANGULAR

El presente Protocolo de Intención es celebrado entre ITAIPU Binacional (en adelante "ITAIPU Binacional"), hidroeléctrica perteneciente a los Gobiernos brasileño y paraguayo, entidad binacional constituida de conformidad con el artículo III del Tratado firmado entre la República Federativa del Brasil y la República de Paraguay el 26 de abril de 1973, con sede en Brasilia / DF, Brasil, el Centro de Negocios Brasil 21, SHS, cuadra 06, Grupo A, Bloque A, Sala 103, con oficinas en Curitiba - Paraná, en la Calle Comendador Araújo, No. 551; y en Asunción - Paraguay, en la calle de la Residenta No. 1075, inscrita en el Registro Nacional de Personas Jurídicas del Ministerio de Hacienda de Brasil bajo el No. 00.395.988/0001-35, representada en este acto por su Director General Brasileño, Jorge Miguel Samek, y su Director General Paraguayo, James Spalding Hellmers;

y la Organización de las Naciones Unidas para la Alimentación y la Agricultura (en adelante la "FAO") representada por Sr. Graziano da Silva, Director General;



Possible contributions of Latin America and the Caribbean to Bioenergy and Global Agriculture

- Contribute to the reduction of greenhouse gases globally
- Ensure an additional supply of biofuels to developed countries, reducing the portions of their productions of corn and other cereals for bioenergy
- Develop of sustainable production models - ecological, economic and social - for other regions
- Contribute to a greater availability of food through exportable surpluses



Address to an International Consensus on Sustainable Biofuels

- Food security guarantee mechanisms;
- Sustainability principles ;
- Research and development, share knowledge and capacity-building;
- Trade measures and financial options;
- Methodologies for measurement and monitoring the biofuels effects ;
- Incentives to participate in family farming.



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BiodieselFAO

Sistema Integrado de Análisis de
Proyectos de Biodiesel y Extracción de
Aceites Vegetales

MANUAL DEL USUARIO



Bioenergy and Biofuels

Training Course
Use and Management
of Software
Biodiesel-FAO System



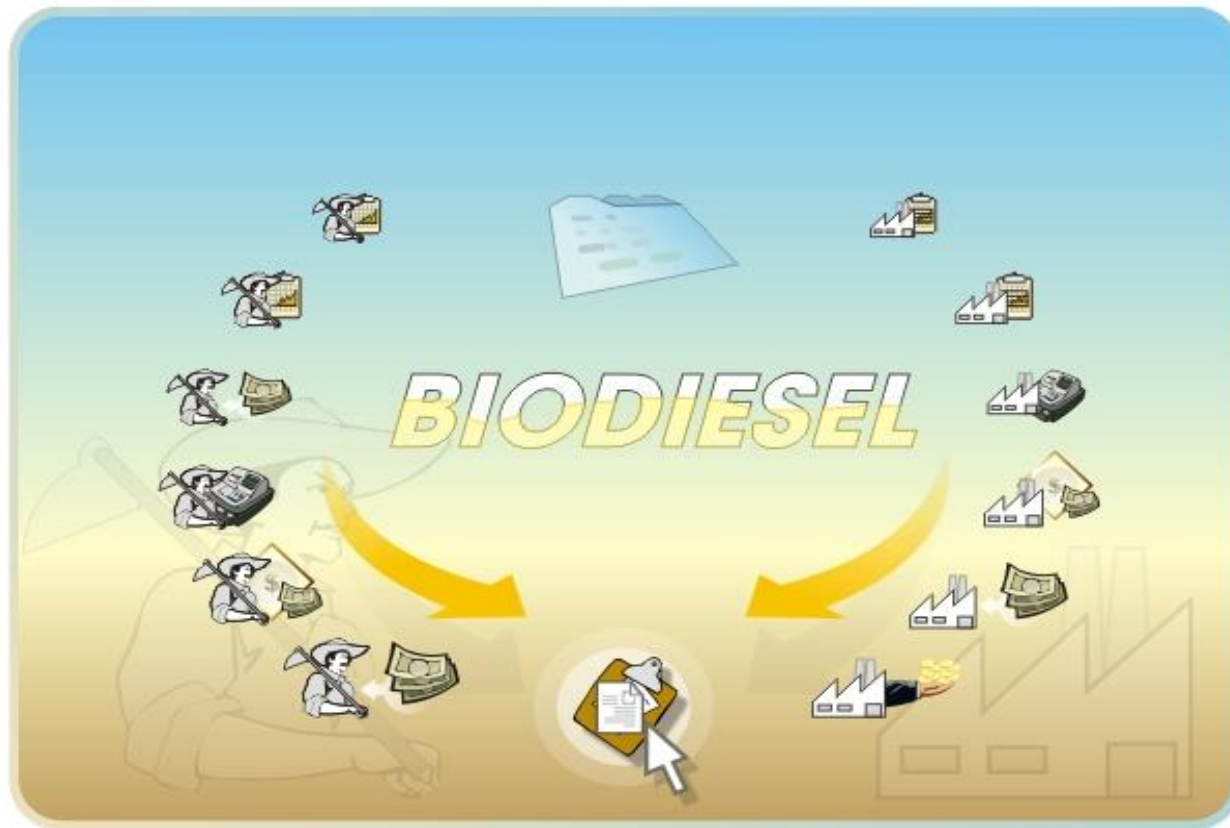
FAO Tools

Biodiesel

Proyecto Módulos Herramientas Ayuda

- Nuevo Ctrl+N
- Abrir Ctrl+A
- Cerrar Ctrl+F
- Eliminar... F3
- Importar Proyecto
- Exportar Proyecto
- Copia de Seguridad ▶
- Salir

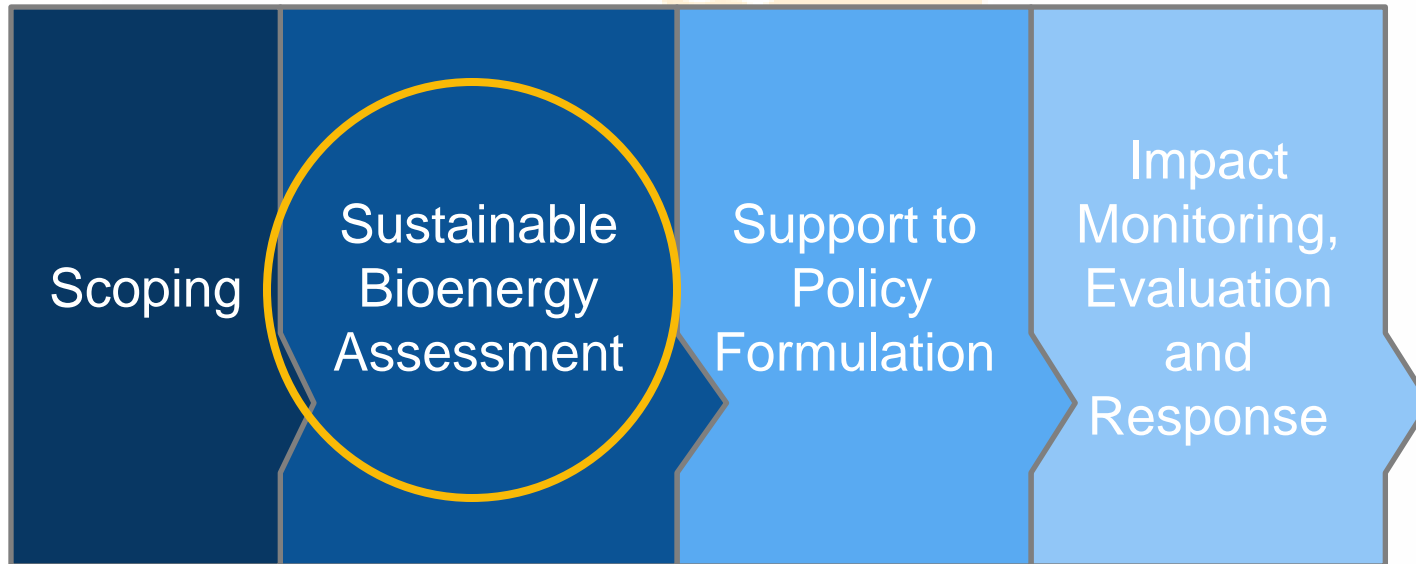
Cerrar Eliminar



Country level support and Evidence: The Bioenergy and Food Security (BEFS) Approach

- Six areas of support:

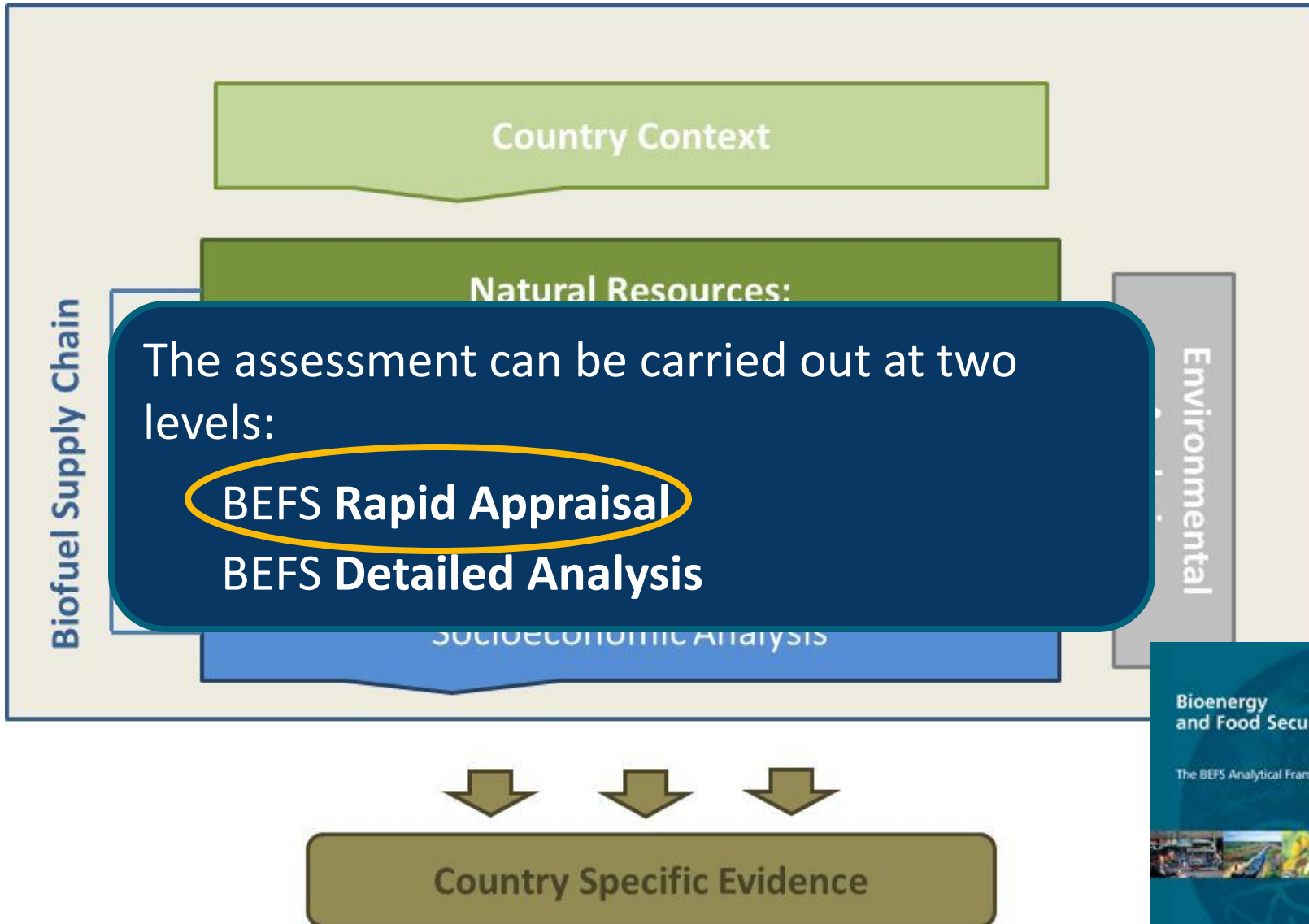
Stakeholder Dialogue and Capacity Building



Risk Prevention, Management and Investment Screening

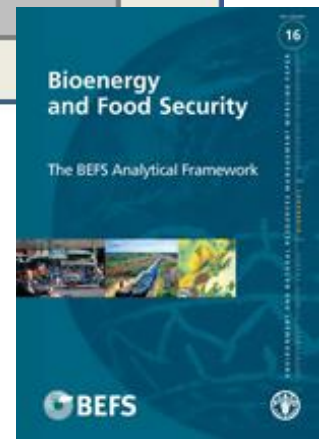


BEFS Sustainable Bioenergy Assessment

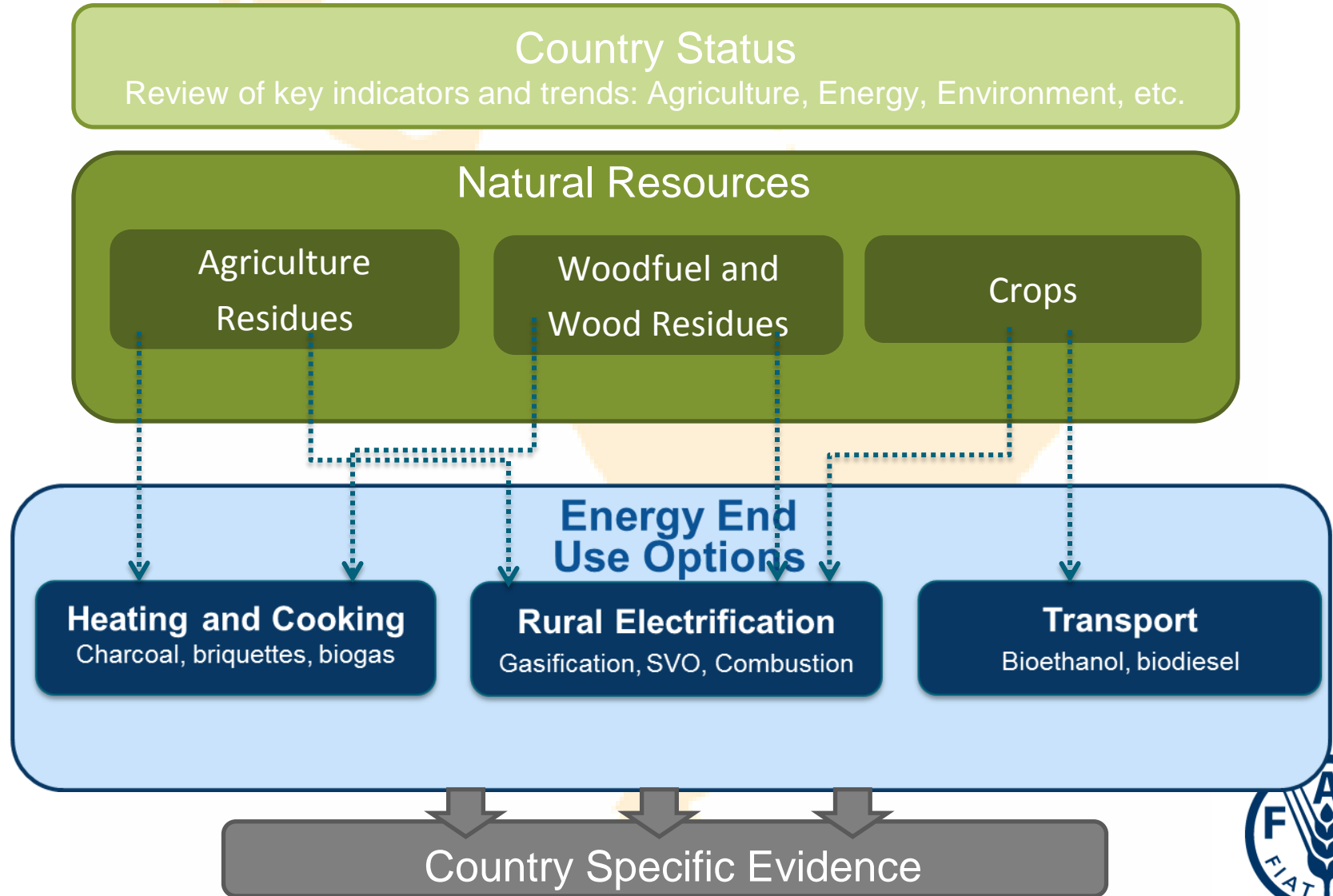


Biofuel Supply Chain

Environmental



The BEFS Rapid Appraisal



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Key Points for an Agenda

- **Urgent need of further analysis, allowing for country specific scenarios**
- **Policy coherence and integration at the country level**
- **Common methodologies to analyze GHG emissions to allow for comparisons, including common reporting standards**
- **Internationally agreed criteria for bioenergy production**
- **Certification issues, including compliance & certification costs**



FRAMEWORK FOR INTERNATIONAL BIOFUELS

Create an environment that allows you to take advantage of the opportunities represented by bioenergy, contributing to the reduction of greenhouse gas emissions, allowing the productive inclusion and the improvement of the incomes of small farmers, and enabling many developing countries reduce their dependence on imported oil

http://www.fao.org/es/esa/index_es.htm

