
**“Towards sustainable energy
sources for society: the positive role
of farmers ”**

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**Expert meeting 2, Biofuels, a good harvest ?
2 October ,Zeist, the Netherlands**

What is IFAP?

- International Federation of Agricultural Producers (FIPA in French)
- Represents more than 600 million farm families
- Members 115 national farmers' organisations from 80 countries
- Represents farmers' voice globally
- Working together with other global organisations
- Works for reasonable income for farm families

Context

- Need to double food production over next 25 years
- 9 billion people by 2050
- >>> Increased energy needs and efficiency (sustainability)
- Fossil fuel, gas and coal are dominant NRJ sources. Bioenergy less than 10% of the needs
- Rise in gasoline prices = concern (impact on agricultural costs).
- Need for energy independence

A justified enthusiasm for renewables: why is it important for farmers?

- Renewables= an issue on the international agenda, good alternative
 - Diversification of energy sources and energy security
 - Towards more environmentally friendly energy sources
 - An outlet for agricultural products and risk diversification

Main definitions

- **Renewable energies** include: biomass for fuel (wood, straw), biogas, biofuel (bioethanol, biodiesel), electricity cogenerated from sugar cane, solar energy, thermal hydroelectricity and fuel cells.
- **Bioenergy** includes: agroenergy and wood energy sources

Main challenges for agriculture and farmers

A POTENTIAL BUT LOW PENETRATION IN AGRICULTURE

Main challenges

- Investment costs: early adaptation technologies, geographic location, capital costs, cost competitiveness re-traditional energy sources.
- Food production and environmental protection (less fossil fuel use, bioenergy production, carbon sequestration e.g carbon sinks, land issues and trade).
- Challenges= Pressure on LOW FARMERS' INCOMES
Farmers' capacity building for investment

>>> Analysis of impact of bioenergy on farmers' incomes and identification of incentive mechanisms

Benefits of bioenergy

■ ENVIRONMENTAL BENEFITS

- Resource protection = reduction of pressure on local environment
e.g. untapped potential of energy from wood, direct sowing methods for NRJ crops.
- Climate protection and carbon saving source
Carbon neutral when inputs from renewables
- Agronomic benefits
e.g Biogas and improved agronomic value of wastes
- Environmental air quality benefits and positive externalities
- Energy balance and efficiency
e.g biodiesel 3/1, bioethanol 2/1 , greenhouse gas reduction 70/75%.
- Recultivating lands and use of set aside and marginal lands

Benefits of bioenergy

■ **ECONOMIC BENEFITS**

Positive effects on the economies of developed countries

- ❑ Risk diversification opportunities : selling to most lucrative markets
- ❑ Income benefits: ethanol and biodiesel prices tied up with oil prices
- ❑ Value added: from non food crops to energy crops
- ❑ Cost competitive cellulosic biofuels (2nd generation)>>higher profits but higher production costs.

Positive effects on the economies of developing countries

- ❑ Lower fuel expenditures
- ❑ Cash crop opportunities: export opportunities
- ❑ Advantages of cellulosic biofuels(domestic and export)
- ❑ Rural employment thus a deterrent to rural exodus
- ❑ untapped potential of wood energy sources (forestry and others)

POVERTY REDUCTION

- ***At the international level***

- Stabilisation effect on agricultural market prices

e.g elasticity in overall demand

- Moderating effect on the price of petroleum

e.g depressionary effect of 2 to 3% on the price of petroleum for a 14% of incorporation

- Availability of agricultural products

High prices affect the supply side (set aside land, technical advancements, rationing food demand)

... *Policy proposals*

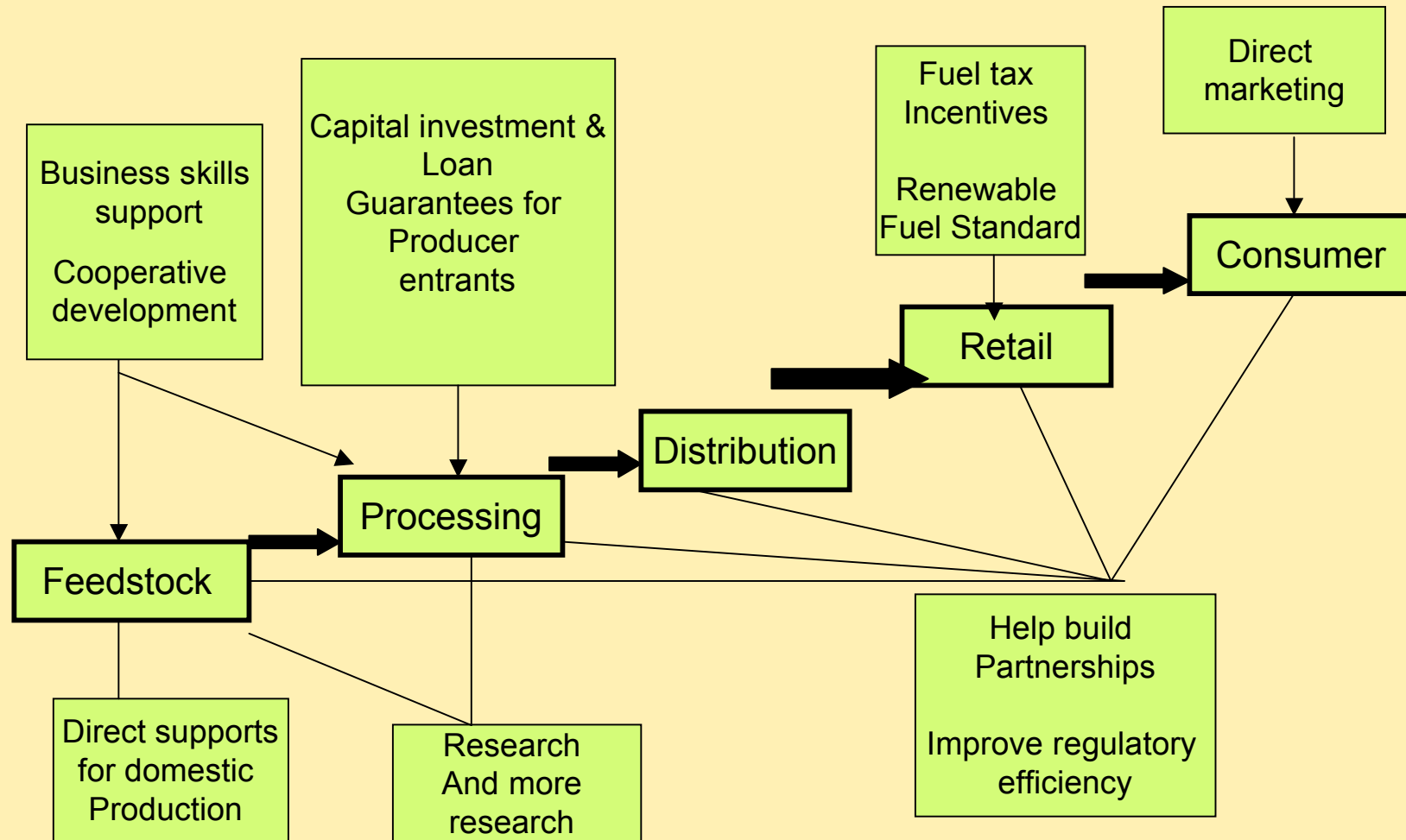
FARMERS NEED INVESTMENT CAPITAL AND MARKET ACCESS

- ❑ Farmers = providers of **value added products** and **NOT** producers of raw materials
- ❑ **Farmer's ownership** of the whole **value chain**, from production to distribution.

Farmers ask governments to:

- ❑ **Create enabling environments** with coherent legislative framework (reflect farmers' needs)
- ❑ **Whole value chain strategy** (tax incentives, processing facilities, quality standards, direct marketing) with stakeholders.
- ❑ **Identification of appropriate incentive mechanisms for farmers** (market access with income tax credits, financing bioenergy plants and increase farmers' participation), regulatory issues (appropriate quality control systems), reduce business risk, carbon accreditation to reward farmers, internalisation of collateral benefits of bioenergy).

Value chain approach supporting agricultural producers



Policy proposals

- For a competitive domestic feedstock policy
Avoid distortions on global markets
- Increased support for R&D
Development of small scale technology
Diversification of NRJ sources through R&D (new NRJ crops, improved processing techniques).
- Data base and information sharing

The role of farmers' organisations

- Provision of extension services and technology transfers e.g
technology transfers e.g trainings, local advisers...

Uncertainties and challenges

- Bioenergy is **not a miracle solution** to farmers' incomes: careful planning is needed
 - **Long term assessment** to avoid unfulfilled expectations
 - Plan developments and ascertain **immediate and long term prospects** e.g land use policies, selection of appropriate crops, rights of farmers...

- **Insufficiencies**
 - Untapped potential of wood energy and agro-energy in forestry
 - Lack of information on biomass potential
 - Lack of trained human resources
 - Lack of knowledge in developing countries on harvesting, transportation, storage and use of bioenergy
 - Lack of data in developing countries to make the right choices on the development of bioenergy production (how, when, when to produce).

Uncertainties and challenges

■ **Sustainability challenges**

- Land issue: displacement of farmers (small scale)
- Increased price for natural resources (water, land)
- Energy use > energy production thus environmental damage (backfires on farmers)
- What criteria to measure sustainability? For certification standards for biofuels? Risk: use of certification as a trade barrier to domestic production (developing countries' view point)

<<<coherence between agricultural policies and sustainable energy policies.

For Farmers sustainability of bioenergy is critical

■ **Food versus energy: what effects on food supplies?**

- Negative on food net importing countries .
>>Balance supply and demand of food
>>>multi-purpose crops

Uncertainties and challenges

- **New prospects on biotechnology (2nd generation e.g biomass)**
>>>>Secure first generation bioenergy to provide R&D for 2° generation

- **Beyond food and feed crops (wind, solar..)**
<<<<**overcoming food versus energy production and balance food and non food needs**

- **Effects of bioenergy development on prices and competition issues**
 - Biofuel price linked to oil price
 - Steady and sustained increase in commodity prices = Farmers' profitability
 - recent rise in food prices due to low stocks, bad harvests, speculation in the food chain. Need governmental regulation policies.

Uncertainties and challenges

- **Investing in developing countries (lack of investment capacity)**
 - Bioenergy as a potential to harness for poverty reduction.
 - Foreign direct investment , what cooperation systems?

- **Trade issues** (limited exports for developing countries, no clear classification of biofuels) Biofuels= tradable internationally (WTO Aid for trade).

Conclusion

- ❑ **Develop long-term strategic energy plan of which bioenergy is a component**
- ❑ **Identify bioenergy crops and sectors where country is cost-effective and competitive in long-term**
- ❑ **Take environmental, technological, food security, trade and other concerns into proper consideration**
- ❑ **Ensure that producers enjoy a fair share of the benefits from the bioenergy developments through appropriate support mechanisms.**
- ❑ **Further R&D needed to avoid competition between food and fuel uses of food crops.**

Thank you!

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