

**1st FAO-BEFSCI Technical Consultation on “Criteria and Indicators on Sustainable Bioenergy Production that Safeguards Food Security”
(FAO Headquarters, Rome, 2-4 November 2009)**

KEY MESSAGES

The first FAO-BEFSCI technical consultation was held at FAO Headquarters in Rome from 2 to 4 November 2009, with the following objectives:

- to discuss the links between bioenergy production and food security; and
- to identify a preliminary set of criteria and indicators on sustainable bioenergy production that safeguards food security.

A multidisciplinary group of twenty-nine experts on bioenergy sustainability and food security from FAO and other UN agencies, standard setting agencies, research institutes and NGOs attended the consultation (see list of participants).

During the first part of the consultation, a number of cross-cutting issues related to the scope, objectives and outcomes of the BEFSCI project were discussed. During the second part, the focus was on the trends and impacts to measure and on the type of indicators to use.

Principles, criteria and indicators (P, C&I).

- A number of experts stressed the need to develop a set of guiding principles on sustainable bioenergy production that safeguards and, if possible, fosters food security. Once these “umbrella” principles have been defined, specific criteria and indicators should be developed to assess the impacts (both positive and negative) of bioenergy production against such principles.

National and local governments as the main target users.

- A number of possible users and uses of the P, C&I were considered. Several experts agreed that national and local governments (through their competent authorities) could be one of the primary targets. The set of P, C&I that will be developed under BEFSCI would guide and inform the development of national and local sustainable bioenergy policies, strategies and programmes that safeguard and, if possible, foster food security. The P, C&I could be used both for an ex-ante assessment of risks and opportunities (for food security) of bioenergy production and for monitoring and assessing (ex-post) the food security-related impacts (both positive and negative) of this production.

- In addition, national and local governments could use the P, C&I to assess proposed bioenergy projects and investments, in order to determine whether they are consistent with their bioenergy policies and strategies and with both national and local food security policies and targets.
- BEFSCI's P, C&I would also inform other actors and on-going initiatives in the area of bioenergy sustainability and food security, including national legislations, certification schemes and scorecards developed by international financial institutions.

Consider all modern bioenergy technologies and feedstocks, and both large-scale and small-scale (including outgrower) production systems.

- It was pointed out that issues of potential competition with food security seem more likely to arise from the production of liquid biofuels for transportation. For this reason, it was argued that it could make sense to focus on the impacts on food security of this type of bioenergy production. However, a number of experts noted that liquid biofuels are only one of several modern bioenergy technology options and governments need to consider and assess all of them in an integrated way when developing their (bio)energy policies and strategies. In addition, governments need to assess proposed projects and investments in a broad range of technologies. For this reason, BEFSCI's P, C&I should be applicable to all modern bioenergy technologies.
- In addition, it was agreed that BEFSCI's P, C&I should not deal with “traditional” forms of bioenergy such as fuelwood and charcoal, which are already covered by specific sustainability principles, criteria and indicators that FAO and the International Energy Agency (IEA) recently developed.
- Bioenergy can be produced using a broad range of feedstocks, including agricultural and forest products and residues. It was argued that BEFSCI's P, C&I should be applicable to all bioenergy feedstocks and allow governments to assess and compare their impacts (both positive and negative) on food security.
- Finally, most experts agreed that it is important to consider and assess the impacts arising from both large-scale and small-scale (including outgrower) bioenergy production systems. Some experts argued that small-scale production systems are more likely to generate benefits and that, conversely, most negative impacts are likely to be caused by large-scale systems. However, it was agreed that BEFSCI's P, C&I should consider and assess positive and negative impacts associated with both large-scale and small-scale (including outgrower) production systems.

Consider all environmental and socio-economic impacts (both direct and indirect) with potential implications for food security.

- As pointed out by a number of experts, food security is affected by various environmental and socio-economic factors that bioenergy production may have positive or negative impacts on. Changes in water availability and quality due to bioenergy production or the creation of new employment opportunities, for instance, have implications for food security. For this reason, it is important that BEFSCI's P, C&I cover all environmental and socio-economic impacts of bioenergy production that may have an impact on food security (see annex).
- Experts stressed the importance of considering both direct and indirect impacts of bioenergy production on food security, despite the difficulties generally associated with the identification and measurement of indirect impacts.
- Some experts also suggested that BEFSCI's P, C&I could target vulnerable areas (such as water-stressed areas) and groups (such as indigenous communities), given their vulnerability to transitory and/or chronic food insecurity. BEFSCI's P, C&I could therefore put particular emphasis on the impacts of bioenergy production (wherever it takes place) on these areas and groups, in both rural and urban contexts.
- Some of the impacts (both positive and negative) of bioenergy production on food security may arise from – and be attributed to - specific projects and investments, while other impacts may only be felt at the national level (as cumulative impacts of a number of projects and investments). Finally, food security-related impacts may be the result of bioenergy production in another country, through changes in exports/imports and in the international prices of certain agricultural commodities. As argued by the experts, BEFSCI's P, C&I should capture the impacts arising from each of these levels.

Inclusion of best practices and policy guidance/guidelines.

- A number of experts stressed the importance of providing, in addition to principles, criteria and indicators, both best practices and policy guidance/guidelines on sustainable bioenergy production that safeguards food security. Best practices may play a key role in reducing risks and mitigating the negative impacts of bioenergy production on food security, and they may also ensure that the opportunities created by bioenergy production actually result in an improvement of food security.

- Best practices require an enabling policy environment, with effective and efficient incentives for the implementation of such practices, as well as disincentives for bad practices. To this end, specific policy guidance/guidelines should be provided under BEFSCI. Guidelines should also be provided to ensure public participation and transparency in decision-making processes on bioenergy.
- More broadly, BEFSCI's P, C&I should allow governments to determine whether (and to which extent) their legal and institutional framework provides for the conditions and mechanisms that are needed in order to ensure that bioenergy production is sustainable and that it safeguards food security. For instance, clear land tenure rights are key to ensuring that bioenergy production does not lead to the displacement of smallholder farmers and the poorest sections of the local population.
- Finally, some experts stressed that policy guidance/guidelines should be provided with regard to the policy mechanisms and safety nets that should be established to respond to the negative impacts of bioenergy production on food security (if/when they occur) and to compensate the so-called "losers" (i.e. the groups and/or individuals who will be most negatively impacted).

Type of indicators.

- Most experts agreed that BEFSCI's P, C&I should include a combination of pressure, state and response indicators. Both binary (yes/no) and metric (i.e. quantitative) indicators should be used to assess the impacts of bioenergy production on the various components and sub-components of food security, as well as on all environmental and socio-economic aspects/components of relevance to food security (see annex). If, due to a lack of data or of an assessment methodology, some of these impacts cannot be quantified, proxies, estimates and simulations should be used.
- Some experts suggested that a tier system of indicators could be developed for assessing certain impacts. This would involve identifying a core set of indicators, complemented by more detailed indicators. These additional indicators could be used when certain thresholds (defined at the national or local level) are exceeded, especially in areas vulnerable to transitory or chronic food insecurity.
- Several experts argued that bioenergy production might have differentiated impacts on men and women (and on men- and female-headed households) due, for instance, to their different access to land, credit and markets. For this reason, whenever possible, gender-disaggregated data should be collected and used. In addition, gender-specific indicators should be considered.

ANNEX

Main environmental, socio-economic and food security-related aspects/components that bioenergy production may affect

Bioenergy production may affect (either positively or negatively) various dimensions and sub-dimensions of food security, either directly or through impacts on environmental and socio-economic aspects/components with relevance to food security. The following environmental, socio-economic and food security-related aspects/components (which may be affected by bioenergy production) were mentioned as particularly relevant by the experts:

FOOD AVAILABILITY

- Food production;
- food surplus/deficit;
- Food trade balance;
- productive capacity of the land;
- water availability and quality for productive uses;
- availability of agricultural inputs; and
- ecosystem services of socio-economic value.

FOOD ACCESS

- food prices;
- employment and wages;
- income-generating activities;
- access to land;
- land prices; and
- access to markets.

FOOD UTILIZATION

- dietary diversity;
- health of workers and local communities;
- access to housing, sanitation and health care facilities;
- water availability and quality for human consumption;
- access to modern energy services;
- access to fuelwood, charcoal and other “traditional” fuels.

FOOD STABILITY

- availability of food stocks;
- agrobiodiversity level; and
- volatility of food prices.