

**SIXTH FRAMEWORK PROGRAMME**

**FP6-2004-INCO-DEV-3**

**PRIORITY A.2.3.: Managing Arid and Semi-arid Ecosystems**



# **COMPETE Good Practice Principles**

## **COMPETE**

Competence Platform on Energy Crop and Agroforestry  
Systems for Arid and Semi-arid Ecosystems - Africa

**Project Co-ordinator:**

WIP – Renewable Energies  
Sylvensteinstr. 2  
81369 Munich, GERMANY

This report presents results of the work performed in the framework of C on “Sustainability analysis of alternative land use” of the project COMPETE (Competence Platform on Energy Crop and Agroforestry Systems for Arid and Semi-arid Ecosystems - Africa), co-funded by the European Commission in the 6<sup>th</sup> Framework Programme – Specific Measures in Support of International Cooperation (Contract No. INCO-CT- 2006-032448).

*Work package 3 Leader*

Dr. Rocio A Diaz-Chavez  
Imperial College London  
Centre for Environmental Policy  
Exhibition Road South Kensington  
Mechanical Engineering Building 313A SW7 2AZ London  
E-mail: r.diaz-chavez@imperial.ac.uk

*COMPETE Project Coordination*

Dr. Rainer Janssen, Dominik Rutz  
WIP – Renewable Energies  
Sylvensteinstr. 2  
81369 Munich, GERMANY  
Tel.: +49 89 72012743  
E-mail: rainer.janssen@wip-munich.de

## COMPETE Good Practice Principles

In the framework of COMPETE work package 3 on “Sustainability analysis of alternative land use” a set of principles for Good Practices Guidelines for bioenergy initiatives and projects have been elaborated.

The principles were selected with the aim to provide a clear and balanced guideline for *Good Practices*. There is no intention of these guidelines to provide definitive criteria and indicators as the principles do not attempt to be a certification or verification system in any form. Nevertheless, according to the methodology followed and the benchmarking review, it is expected that the guidelines will be used by different stakeholders when considering:

- i) To initiate or assess a bioenergy proposal or project
- ii) To assess the sustainability of a feasibility report for a bioenergy proposal or project
- iii) To review policy guidelines and assist in the decision-making process of a bioenergy proposal or project
- iv) To review and/or assess an ongoing bioenergy proposal/project

Table 1 Principles for sustainability assessment for bioenergy initiatives

	Principle	En	S	Ec	P
1.	Good agro-ecological and forestry practices (biodiversity, soil)	✓			
2.	Not affecting water supply and quality	✓			
3.	No land use change that detrimentally affects food security	✓			
4.	Community participation (from planning)		✓		
5.	Women’s participation (from planning)		✓		
6.	Skills transfer (management, business, agriculture)		✓		
7.	Community inclusion in business or economic model (Contract with investor or NGO)			✓	
8.	Added value in the community (individual, money, assets, land, co-products)			✓	
9.	Improvement in services and infrastructure(energy supply, health) reinvestment of revenue within the community			✓	
10.	Compliance with National guidelines for bioenergy policy in place				✓
11.	Compliance with Local programmes, regulations and/or plans in place				✓
12.	Respect Land rights and avoid displacement				✓

Table 1 presents the identified 12 principles and the topic they are related to (environmental, social, economic, policy and institutions).

These principles are not exhaustive and may differ under different frameworks, projects, experts, countries or any other stakeholders opinion.

In the following more detailed information is presented on the identified set of COMPETE Good Practice Principles.

## **Environmental Principles**

### **Principle 1. Good agro-ecological and forestry practices (biodiversity, soil)**

This principle considers that the basic environmental characteristics to grow bioenergy crops will be followed according to the agro-ecological and forestry conditions of each country, region or community willing to grow them. They include: land use type, soil conditions (adequate for the selected bioenergy crop), soil management and protection, no negative effect on biodiversity, good agriculture practices (e.g. use of fertilisers and pesticides), good forestry practices (e.g. conservation and management).

### **Principle 2. Not affecting water supply and quality**

This principle seeks to consider that especially in areas where water is constrained it will not be used for bioenergy crops or the water use will be limited or managed according to the good agricultural practices. It also seeks to avoid the pollution of water that negatively affects its quality (e.g. overuse or bad use of fertilisers and pesticides). The principle considers the use of water first for human consumption and for food crops.

### **Principle 3. No land use change that detrimentally affects food security**

Land use for bioenergy crops should be considered within the national policies and agro-regionalisation along with the other policy instruments and guidelines (if available). The change of land use for bioenergy crop production should not affect food security.

## **Social Principles**

### **Principle 4. Community participation (from planning)**

It considers the community participation in the bioenergy project, programme or plan since the early stages of the planning process. Community participation is not only part of a sustainability process but will also contribute to the success of the project and will allow the community to participate in the decision-making process. Additionally, it provides a feeling of “ownership” and “recognition” by the community.

### **Principle 5. Women’s participation (from planning)**

This principle looks for women participation in bioenergy initiatives from the early stages of the planning process. Including women since the beginning will allow to provide direct gender benefits and will empower women in activities directly related to them.

### **Principle 6. Skills transfer (management, business, agriculture)**

Transfer of skills is related to the added value of growing bioenergy crops. This includes different stages of the business cycle and it applies to the different production and scale schemes (e.g. out-growers, small, medium and large scale). It also includes productive areas (agriculture), transformation (e.g. extraction of oil from seeds), management and business skills (e.g. revenue and trading).

## **Economic Principles**

### **Principle 7. Community inclusion in business or economic model (Contract with investor or NGO)**

The inclusion of the community in the business or economic model will prevent the exploitation of its members and will provide the mechanisms to comply with other principles such as Principles 6 and 8.

### **Principle 8. Added value in the community (individual, money, assets, land, co-products)**

The added value from the bioenergy initiative can be translated not just in terms of an increment in the income of the community and at individual level (e.g. savings or additional income) but also with additional assets (e.g. animals, food production), land (e.g. individual or communal land) and co-products (e.g. income from soap making).

### **Principle 9. Improvement in services and infrastructure (energy supply, health) and/or reinvestment of revenue within the community**

At a community level, the possibilities of reinvesting the revenue to improve services and infrastructure (if previously agreed within the community) are considered as a main objective. These services can be related to energy supply or better access to health services.

## **Policy Principles**

### **Principle 10. Compliance with National guidelines for bioenergy policy in place**

Where available National policies or guidelines regarding bioenergy production exist, these should be followed by all stakeholders involved in the bioenergy initiative such as the proponent, the community, national and international consultants and developers, investors, NGOs among others. Working with national, regional and local authorities is considered to be important especially for developers and investors in order to adequately address cross-cutting sectors (e.g. environment, social, industry, agriculture sectors).

### **Principle 11. Compliance with Local programmes, regulations and/or plans in place**

Working with the National, regional and local authorities is considered to be important to create awareness of all programmes, plans and regulations at local level. Compliance will strengthen the bioenergy initiative and avoid conflicts with the different stakeholders and the regulators.

### **Principle 12. Respect Land rights and avoid displacement**

The debate on land rights in developing countries (mainly in Africa) led to this principle to be considered by communities, governments and investors. It aims at avoiding displacement. In cases where displacement can not be avoided (based on the decisions of authorities), adequate compensation and further studies for relocation need to be performed according to international practice (e.g. such as the guidelines from the World Bank.)

## COMPETE Good Practice Assessment Form

The principles described above have been included in an Assessment Form to assess a bioenergy initiative or project. The assessment is considered to be done according to basic information given from the initiative or project. This information needs to have as minimum the following points:

- Type of initiative (e.g. private, government, community, NGO, other)
- Agreements or reviews of the initiative with local, regional and national authorities (e.g. for the compliance with regulations and policies of Principles 10 and 11)
- Type of land use for the bioenergy project (agricultural land, forest, grassland, other)
- Type of feedstock (e.g. cassava, Jatropha, palm oil, sugar cane, other)
- Production scheme (community, out-growers, cooperative, private, other)
- Scale of the plantation (number of hectares/ agriculture land in the farm, community or region<sup>1</sup>)
- Contract or agreement type with the farmers or out-growers (e.g. fixed contract, employment, number of years, fixed price or alternative price model)
- Final use of the feedstock, co-products and sub-products
  - Feedstock to be sold without any treatment,
  - Oil or fuel processing in place,
  - Oil or fuel to be used for electricity,
  - Oil or fuel to be sold for local, regional, national use,
  - Fuel for export
- Community participation in the business scheme since planning (meetings organised, community decisions, women's included in scheme)
- Overall benefits for the community (individual income including new assets such as animals or land, electrification scheme, cooperative benefits)

The assessment is conducted with an Assessment Form following a qualitative score system. Although it is recognised that the assessment will be of a subjective nature, it is expected that the assessment will be conducted by stakeholders or experts with experience on bioenergy projects and independent from the proposed project in order to avoid bias.

The scale used to assess each principle and provide a score is as follows:

- 1** The project does not consider this principle (0%)
- 2** The project covers this principle partially <30%
- 3** The project covers partially this principle in 30-70%
- 4** The project covers partially this principle in <70%
- 5** The project fully covers the principle (100%)

---

<sup>1</sup> Determining the scale of the plantation on small, medium and large will vary according to the farm, community or region where the initiative is proposed and to the type of feedstock. This is the reason why it is considered here as a relation between the number of hectares and the total agricultural area in the community or region.

The assessor needs to validate the score given by writing short statements on the reasons for giving the score. Thereby, subjectivity is reduced and decision-makers are provided with additional elements for the final decision or for seeking improvements in the initiative.

A maximum of 60 points can be scored. It is considered that projects scoring less than 35 points need to be reviewed.

## **COMPETE Good Practice Assessment – Case Studies**

In order to provide aid for the use of the guidelines, a series of examples of current projects or initiatives were assessed according to the principles of these guidelines. These are presented in the Annex and include the following projects:

- Winrock International India (WII), Electrification Village in Ranidehra, Chattisgarh
- Integrated Sustainable Energy Services for Poverty Reduction & Environmental Conservation, Arusha, Tanzania
- Kilombero Sugar Company Ltd (KSCL), Tanzania
- Bagamoyo (SEKAB Bioenergy) Tanzania

**COMPETE Project Coordination  
WP7 Coordination - Dissemination**

WIP Renewable Energies  
Sylvensteinstr. 2  
81369 Munich  
Germany

Contact: **Dr. Rainer Janssen**  
**Dominik Rutz**

Phone: +49 89 720 12743

Fax: +49 89 720 12791

**E-mail:** [rainer.janssen@wip-munich.de](mailto:rainer.janssen@wip-munich.de)  
[dominik.rutz@wip-munich.de](mailto:dominik.rutz@wip-munich.de)

**Web:** [www.wip-munich.de](http://www.wip-munich.de)

**COMPETE Project Coordination  
WP3 Coordination - Sustainability**

Imperial College London  
Centre for Energy Policy and Technology  
South Kensington Campus, London, SW7 2AZ  
United Kingdom

Contact: **Dr. Jeremy Woods**  
**Dr. Rocio Diaz-Chavez**

Phone: +44 20 7594 7315

Fax: +44 20 7594 9334

**E-mail:** [jeremy.woods@imperial.ac.uk](mailto:jeremy.woods@imperial.ac.uk)  
[r.diaz-chavez@imperial.ac.uk](mailto:r.diaz-chavez@imperial.ac.uk)

**Web:** [www.imperial.ac.uk](http://www.imperial.ac.uk)

**WP1 Coordination – Current Land Use**

University of KwaZulu-Natal  
School of Environmental Sciences  
South Africa

Contact: **Dr. Helen Watson**

**E-mail:** [watsonh@ukzn.ac.za](mailto:watsonh@ukzn.ac.za)

**Web:** [www.ukzn.ac.za](http://www.ukzn.ac.za)

**WP2 Coordination – Improved Land Use**

Utrecht University  
Dept. Science, Technology and Society  
The Netherlands

Contact: **Dr. Andre Faaij**

**Dr. Edward Smeets**

**E-mail:** [A.P.C.Faaij@uu.nl](mailto:A.P.C.Faaij@uu.nl)  
[E.M.W.Smeets@uu.nl](mailto:E.M.W.Smeets@uu.nl)

**Web:** [www.chem.uu.nl/nws](http://www.chem.uu.nl/nws)

**WP5 Coordination – Financing**

Energy for Sustainable Development  
United Kingdom

Contact: **Michael Hofmann**

**Stephen Mutimba**

**E-mail:** [michael.hofmann@esd.co.uk](mailto:michael.hofmann@esd.co.uk)  
[smutimba@esda.co.ke](mailto:smutimba@esda.co.ke)

**Web:** [www.esd.co.uk](http://www.esd.co.uk)

**WP4 Coordination – International Cooperation**

Winrock International India

Contact: **Sobhanbabu Patragadda**

**E-mail:** [sobhan@winrockindia.org](mailto:sobhan@winrockindia.org)

**Web:** [www.winrockindia.org](http://www.winrockindia.org)

Stockholm Environment Institute

Contact: **Francis Johnson**

**E-mail:** [francis.johnson@sei.se](mailto:francis.johnson@sei.se)

**Web:** [www.sei.se](http://www.sei.se)

European Biomass Industry Association

Contact: **Stephane Senechal**

**E-mail:** [eubia@eubia.org](mailto:eubia@eubia.org)

**Web:** [www.eubia.org](http://www.eubia.org)

**WP6 Coordination – Policies**

Food, Agriculture and Natural Resources Policy  
Analysis Network of Southern Africa  
South Africa

Contact: **Khamarunga Banda**

**Lindiwe Sibanda**

**E-mail:** [khamarunga@hotmail.com](mailto:khamarunga@hotmail.com)

[lsibanda@fanrpan.org](mailto:lsibanda@fanrpan.org)

**Web:** [www.fanrpan.org](http://www.fanrpan.org)



COMPETE is co-funded by the European Commission in the 6<sup>th</sup> Framework Programme – Specific Measures in Support of International Cooperation (INCO-CT-2006-032448).