



Final Summary Report

Working towards sustainable biomass production in Mato Grosso, Brazil

Outline of the report

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1. Context and reasons to start the project:

Policy context of the project

High oil prices and the growing concerns about climate change have led to the search for renewable fuels. As a result the use of biomass for energy purposes has increased significantly over the past years, posing severe challenges to the climate, poverty alleviation and food security.

A large part of the biomass production is taking place and is being expanded in Latin America and South East Asia¹. In 2010, about 40% of the crops used for EU biodiesel and about 21% of the crops used for EU ethanol were grown outside the EU. Soy and palm oil, both for biodiesel and sugarcane, for ethanol, represent the bulk of the crops used for biofuels (fuels based on biomass) grown outside the EU².

Recognizing that The Netherlands produces too little biomass to meet the needs of the energy and chemistry sector, the Sustainable Biomass Import programme of NL Agency aims to stimulate, support and facilitate the promotion of sustainability of the production, processing and import of biomass produced abroad, for the application of biomass for energy, transport or chemical purposes in the Netherlands.

The production of biofuels is supported by the 2009 EU Renewable Energy Directive (RED), which obliges the 27 countries of the European Union to achieve a 20% share of renewable energy in the final energy consumption and a 10% share of energy from renewable sources in transport by 2020. In addition to the RED, the 1998 Fuel Quality Directive (EU FQD) requires fuel suppliers to reduce the greenhouse gas intensity of the fuels they sell by 6% by 2020.

The competition of the use of feedstock for biofuels with food applications has fuelled a debate on the impact of the EU renewable energy policy on rising global food prices. This is why the EC has proposed to amend the EU RED and the EU FQD³. One of the main proposed changes is to limit the share of energy from biofuels produced from food crops to 5%. The proposal did not include an Indirect Land Use Change (ILUC) factor⁴. The European Parliament in September voted to place the cap for crop based Biofuels at 6%, and to account ILUC through factors from 2020 in the FQD. It is currently under discussion with the European Council of Ministers.

Both the RED and FQD Directives do include some sustainability criteria. These criteria aim at preventing the conversion of areas of high biodiversity and high carbon stock for the production of raw materials for biofuels. In order to receive government support or count towards mandatory national renewable energy targets, biofuels used in the EU (whether locally produced or imported) have to comply with these sustainability criteria. To this end, the sustainability of biofuels needs to be checked by Member States or through voluntary schemes which have been approved by the European Commission (EC), but which are administered by the certifying organizations⁵. In order to get a certificate the criteria of that certification scheme have to be met. There appear to be big

¹ Source:Ecofys (2008) -'Biofuels Baseline', Ecofys, [http://www.ecofys.com/files/files/ecofys_2011_biofuels_baseline\(2008\).pdf](http://www.ecofys.com/files/files/ecofys_2011_biofuels_baseline(2008).pdf)

² Source:European Commission, Report from the Commission to the European Parliament and the council; Renewable energy progress report (2013) http://ec.europa.eu/energy/renewables/reports/doc/swd_2013_0102_res_en.pdf

³ See for example: <http://www.dw.de/food-or-fuel-debate-leads-to-eu-biofuel-changes/a-16313695>

⁴ Proposal of 17 October 2012 : http://ec.europa.eu/clima/policies/transport/fuel/docs/com_2012_595_en.pdf

⁵ Currently 14 schemes have been approved. http://ec.europa.eu/energy/renewables/biofuels/sustainability_schemes_en.htm (18 June 2013)

differences in the level of assurance offered by the various certification systems approved by the EU to prove compliance with the EU-RED and the majority of companies chooses the systems with the lowest level of assurance⁶.

Some important sustainability issues are not addressed in the EU-RED as pre-ante compliance criteria. This includes environmental impacts on the quality of water, soils and air or indirect environmental impacts, such as the land use change to grow crops for food on other land. The RED also does not include mandatory social criteria, relating to social impacts such as decreasing food security or loss of land. However, paragraph 7 of Article 17 of the RED specifies a mechanism to monitor the potential social impact of biofuel production in source countries, whether EU members or not. Of particular relevance is the following stipulation:

"[...] The Commission shall, every two years, report to the European Parliament and the Council on the impact on social sustainability in the Community and in third countries of increased demand for biofuel, on the impact of Community biofuel policy on the availability of foodstuffs at affordable prices, in particular for people living in developing countries, and wider development issues. Reports shall address the respect of land-use rights. [...]"

Accordingly, the Commission shall assess the impact of increased demand for biofuel on food prices and 'wider development issues', including respect of land-use rights. The Commission shall also state whether source countries have ratified and implemented certain International Labour Organization (ILO) conventions, the Cartagena Protocol on Biosafety and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Following the EC report, 'corrective action' shall be taken, 'in particular if evidence shows that biofuel production has a significant impact on food prices'. However, paragraph 8 of Article 17 makes clear that social criteria cannot be used to define the eligibility of biofuels.

In the discussions on the EU RED was a big debate on the inclusion of social sustainability criteria. There was strong opposition against it from Brazil, Malaysia, Indonesia and some other countries. They argued this would be new protectionism that leads to preventing importing biomass products (mainly palm oil, soy and sugarcane) from these countries into the EU. A moratorium was discussed too, to be able to first regulate things well. After voting in the European Parliament it was decided that no social criteria and no criteria for water would be included, but only a reporting obligation for the European Commission on these issues¹⁰, as discussed above. The first renewable energy progress report of the European Commission was published on 27 March 2013.¹¹ In its analysis, the EC has looked at three main issues: land rights, labour and food availability. This report is however very scanty and one of the conclusions of the EC is that further monitoring of socio-economic impacts is necessary. The report has met with very substantial critique on its methodology, for example from Action Aid¹² as well as Oxfam¹³.

In the Netherlands the 'Commission Cramer' developed criteria which were presented in a so-called Testing Framework, which is considered the leading framework for sustainable biomass. Based on this Framework, the NEN, the Dutch Standardisation Institute, has drawn up the certification scheme for sustainable biomass, NTA8080 ('Nederlandse Technische Afspraak'). NTA8080 therefore does include social criteria such as on competition with food, local prosperity and social wellbeing. NL Agency required that the Testing Framework would be the reference for the projects funded under their Sustainable Biomass Import programme.

This project *Working towards sustainable biomass production in Mato Grosso, Brazil*, was started to independently monitor the social and environmental impacts of biomass production for biofuels in

⁶ Dam, Jinke van, Ugarte, Sergio, Iersel, Sjors van, Selecting a biomass certification system – a benchmark on level of assurance, costs and benefits, published by NL Agency, 2012

the EU. It focused on the production of sugarcane and soy, since the production of these crops has expanded rapidly in Brazil over the last years, due to the strong increase in the international demand for biofuels. Especially in Mato Grosso State, the production still increases and much more land has been targeted for sugarcane production in the coming years. Nowadays, Mato Grosso is the leading State on soy production and one of the biggest sugarcane producers of Brazil. Brazil is the most important supplier of ethanol to the Dutch market. The project aimed to enable Dutch companies to import sustainable biomass from that region and help counteracting undesired (in)direct effects of (expansion of) biomass production.

2. Objectives of the project

This project *Working towards sustainable biomass production in Mato Grosso, Brazil*, started in 2011, aimed to develop a monitoring tool to get more and improved independent and verifiable information on the social and environmental impacts of the production of sugarcane and soy in Mato Grosso State. It also aimed to enhance capacity of civil society organizations to monitor impacts and to participate effectively in policy dialogues; and to undertake steps with Dutch importers to contribute to sustainable biomass production.

The approach was twofold: 1) the technical and monitoring capacities of local civil society actors in Brazil was to be enhanced, so as to help realize a context in which alternative sustainable production of biomass can take place; and 2) interaction with the bigger Dutch importers of biomass was to take place to stimulate Dutch importers to help achieving a sustainable context for biomass production in Mato Grosso.

3. Activities undertaken in the project

Activities of the project included:

- Developing a methodology for a participatory monitoring system
- Knowledge building for continuous, independent, variable overviews on the social and environmental performance of the sugarcane and soy producing sector in Mato Grosso State
- Capacity building to enhance civil society organizations in Mato Grosso State;
- A survey among auditors and companies

The project explicitly included in her activities to learn from local stakeholders what they understand sustainability to encompass. For the people participating in the project in Brazil, sustainability is understood as “the process by which societies administer the material conditions for their reproduction [survival], redefining the ethical and socio-political principles that guide the distribution of natural resources.”

It is fundamental to study the dynamics of local and regional sustainability, while remaining conscious about the relationship with sustainability on a global level.

So combining the Testing Framework as developed in The Netherlands (the Cramer Criteria), with the sustainability concept as understood by the stakeholders in Brazil, the key social and environmental indicators were prioritized by affected communities upon which to monitor. The indicators are related to the following impact areas:

- Food production
- The level of fish stocks in rivers and lakes
- The number of diseases in the population of the local communities

- Pesticides application
- Support for small-scale and family farming production by state and local governments
- Ability to access the federal programs for the acquisition of food produced by family farming, such as the Food Acquisition Program (PAA) and the National School Nutrition Programme (PNAE);
- Land concentration
- Deforestation

The project partners were OxfamNovib (The Netherlands), FORMAD (Brasil) and FASE (Brasil). OxfamNovib is an international NGO, member of the Oxfam Confederation, and has a track record of more than 30 years in Brazil on sustainability issues (www.OxfamNovib.nl). FORMAD is the Mato Grosso network for environment and development. FORMAD comprehends more than 35 social movements and NGOs at Federal State level (www.formad.org.br). The Federation of Organizations for Social and Educational Assistance (FASE) is the oldest NGO in Brazil and a member organisation of FORMAD. In Mato Grosso State, FASE has a long track record on working on the social, economic and environmental impact of monocultures, mainly sugarcane, soy and pasture. (www.fase.org.br).

4. Results of the project

Result 1: The project developed a monitoring tool to get more and improved independent and verifiable information on the social and environmental impacts of the production of sugarcane and soy in Mato Grosso State. The tool was to be designed to fit the purpose of ensuring a participatory process in which the knowledge and experience of local populations were to have a prominent role. This includes participation of groups with divergent interests. We would not have had a successful project without the broad participation of society, the market and the state, in all its complexity.

Using the monitoring system, the following impacts were identified as the main social and environmental impacts of the introduction and expansion of the large scale monocultures of soy and sugar cane in Mato Grosso:

Environmental impacts:

- Deforestation of both Cerrado and Amazon biomes: over the last ten years Mato Grosso has been continuously the number one in deforestation, only alternating with the state of Pará;
- Pollution by extreme use of agro toxics with severe health and environmental impacts;
- Fish stocks have plummeted as a result of (agrototoxic) pollution;
- Erosion, siltation and land degradation as a result of the intensive use of the land and water scarcity because of irrigation and usage in sugar mills
- Reduction in biodiversity as a result of pollution, deforestation and pre-harvest burning (sugar cane);
- Emission of green house gases, mainly as a result of deforestation and pre-harvest burning

Social Impacts:

- Land concentration of both virgin Amazon and Cerrado territory as well as of small farmers' lands and traditional communities' territories;

- Rural exodus as a result of loss of land, unemployment and absent state policies in support of small-scale and family farming;
- Overall decline in employment in agricultural sector. The large scale mechanized monocultures provide – on average – less than one tenth of jobs compared to small scale and diversified agriculture;
- Poor working conditions, like dangerous conditions when working with agrottoxics, extreme physical work (sugar cane cutters), low wages and seasonal labour;
- Health problems as a result of pollution by agrottoxics, both among direct employees and population of neighbouring communities and cities;
- Food security compromised as local production of traditional food staples is overtaken by export oriented monocultures;
- Lack of technical and financial support for small farmers and traditional communities to maintain and develop their productive activities as local, regional and national governmental policies prioritize large-scale monoculture production over small farmers in matters of technical and financial support

To systematize this complexity of findings of both qualitative and quantitative data, both **Statplanet** and the **FORMAD Website** were used as a data-repository:

Quantitative data were inserted in the Statplanet tool, developed by ICV, one of the lead organizations of FORMAD. It is accessible at <http://www.formad.org.br/?p=2487>. The qualitative data were published on FORMAD's website (http://www.formad.org.br/?page_id=2519 and http://www.formad.org.br/?page_id=2521).

Result 2: the technical and monitoring capacities of local civil society actors in Brazil was enhanced, in order to help create a context in which alternative sustainable production of biomass can take place.

Together with the local communities, a capacity building plan was developed based on a needs assessment. Key features of the plan were both knowledge transfer and skills development.

The knowledge transfer towards the local population (farmers, fishermen and indigenous peoples) focused on learning about the role of stakeholders (State, private sector and civil society organizations) in the field of biomass production that have direct socio-environmental impact in Mato Grosso. The knowledge seminars and workshops were held on the following topics: climate change and REDD+, RIO+20, pesticides and health related issues for family farmers, agro-ecology, and the existing public policies in the region related to biofuels, such as hydropower projects.

Skills development was intrinsically linked to the collective construction of the methodology for the research. Capacity building workshops focused both on improving the monitoring and advocacy skills of the members of civil society organizations. The representatives of local communities (farmers, fishermen and indigenous population) co-developed the monitoring tool with the staff of the project and were trained to be able to collect the primary data in the field, and, finally, to use these evidence based data as input for their lobby activities.

Result 3: capacity of civil society organizations has been enhanced to monitor impacts and to participate effectively in policy dialogues.

FORMAD actively participated in a number of state councils and forums to influence the policy agendas: in the health council (CES), they put on the agenda the negative impacts encountered due to the overuse of pesticides, and advocate for better regulation in that respect, so that the sustainability principles for large scale soy- and sugarcane production will be met. Within the CONSEMA (the State Council for the Environment) FORMAD members advocate for environmental impacts of large scale soy- and sugarcane production to be mitigated, whereas attending the COETREA (State Committee on the Eradication of Slave Labour) allowed FORMAD to flag occurrences of slave labour. Participating in the Committee, Formad achieved preparing an integrated action plan that will train people being freed from situations of slave labour. Attending the CDDPH (The State Council of the Defense of Human Rights) allowed FORMAD to bring to the table conflicts over land, especially concerning indigenous peoples.

Result 4: project results have been disseminated extensively in Mato Grosso State to create support for sustainable production.

Through regional and state wide seminars a wide range of audience was reached, among which universities, government and civil society representatives, who participated to share the project results and discuss the social and environmental impacts monitored. The seminars were used to draft documents for municipal, State and Federal authorities with general and specific regional demands for social-control measures regarding the impacts of biomass production and the rights of family farmers and traditional populations, so that compensatory measures can be taken and social control exercised over the socio-environmental impacts of commodity crops, particularly agrofuels: biodiesel and ethanol.

The research results were published in a book, in Portuguese (Dois casos serios em Mato Grosso. A Soja em Lucas do Rio Verde e A Cana-De-Açúcar em Barra do Bugres. Sergio Schlesinger (2013)) and a corresponding booklet, in English (Two serious cases in Mato Grosso State: Soy in Lucas do Rio Verde and Sugarcane in Barra do Bugres, Sergio Schlesinger (2013)). Both were widely disseminated (see http://www.formad.org.br/?page_id=2519).

A number of interviews with the experts involved in the project were held⁷

Result 5: Results of the findings of the research in Brazil were discussed and presented at numerous meetings and [workshops](#) in The Netherlands. A small-scale farmer from Mato Grosso, chairperson of a local family farming association, as well as COPEREDE, a regional network of family farming associations, both members of FORMAD, represented the Forum both at the [World Biofuels Market presentations in Rotterdam](#), and at meetings with various companies, Dutch and EU policy makers and parliamentarians.

⁷ Sergio Schlesinger on “**The Advance of Agribusiness in Mato Grosso: Wealth that Excludes**” – published in the *Brasil de Fato* newspaper, <http://www.fase.org.br/v2/pagina.php?id=3887>; Interview by IHU (Instituto Humanitas Unisinos) with Sergio Schlesinger on “**Biofuels and Economic Submission**” published by the IHU website and reproduced by various others. <http://www.ihu.unisinos.br/entrevistas/521710-biocombustiveis-e-a-submissao-economica-entrevista-especial-com-sergio-schlesinger>

[A survey among auditors and biofuel importing companies](#) found that auditing on social issues in certification schemes faces both systemic and practical challenges: systemic challenges in the sense that that unequal competition exists especially regarding schemes that don't work with accredited certification bodies, as well as the fact that auditing social issues takes time, whereas winning a tender means offering to be the cheapest. Also, the scope of the auditor is the farm, whereas social and environmental changes in the communities surrounding the farm are hard to measure for auditors.

Practical challenges include finding well trained local assessors and providing training to all assessors all over the world and for the different certification schemes. Time and efforts often appear ad odds with the available time and budget for the audit process. Moreover stakeholders often don't respond to meetings and people are afraid to talk because their job oftentimes depends on the company.

In addition, many schemes approved under the EU RED have unclear indicators that allow room for interpretation; there is a lack of synergy between the different schemes so that the subsequent different requirements contribute to the training challenge that certification bodies face; and some schemes are leaking (for example they certify a partial area, not an entire mill).

All respondents to the survey (both auditors and biofuel importing companies) expressed a clear opinion that the multitude of the EU RED approved certification schemes is creating a race to the bottom and that the EU RED does not include safeguards for the social sustainability issues reported from the projects.

5. Lessons learned

The project was successful in bridging both the physical and cultural distance between the local population in Mato Grosso that is directly affected by the expansion of biomass production, and the policy makers of the EU and representatives of the private sector in The Netherlands that are responsible for the setting of the EU RED legislation and its implementation.

The impact of the visits of representatives of local communities in Brazil to Europe has proven to be very effective for capacity building purposes, such as understanding the political context in which the EU RED is set. In turn, visits from the Dutch project partners to Brazil have proven to be necessary - in addition to conversation over telephone and email - to create a common understanding of each others' realities.

For future project design, we would like to give the following recommendations:

- when setting up a participatory monitoring system, it is important to put central the end users of the tool. That means when developing a tool or method, do not take into account only the technical elements of tool building, but to put central the "software", the people that will actually use the tool and co-develop with them the tool from the start.
- It is important to develop a sound decision making structure within the project. The establishment of a steering committee in our project, which supported the executive team in the implementation of the project and supported key decision making moments, helped the project execution to be more effective. It is important for all project partners to be represented by the steering committee.

- It is important not to focus only on the results, like establishing as a first step a framework and a list of indicators (as indicated in the project proposal), but to be open for changes which resulted in the development of a set of indicators in a participatory way in the field with the target group involved. Working in a participative way is a very time consuming process but proved to be an excellent way for generating ownership. In this line, the time table of the project has been defined too narrowly. The building of a common understanding of the sustainability criteria was a lengthy but necessary process. The criteria are now more aligned with the impacts as perceived by the local population. In that same line, it is important to be aware of the pace of the internal decision making structures which affect project planning.
- The concept of trainers of trainers did not fit in with the way of working of our Southern partner, that is based on including all leaders of the communities in the workshops, who in turn informed their communities. Instead, 'on the job training' was provided for the required skills and knowledge transfer.

6. Follow up of the project

As a pilot, the project was successful in developing and testing a methodology which can conceivably be continued and replicated in places where similar processes of large scale production of biomass takes place. The impact of monitoring is feasible to the extent that social impact assessment include participation of the affected population, and holding public authorities to account to effective enforcement measures.

From the perspective of FORMAD and its members, the work has only just started and needs continuity, at different levels. What would be required is:

Locally, more capacity-building and action workshops, as well as public pressure and partnerships with universities.

State-wide, continuous updating of the StatPlanet data bank; advocacy work in public-policy councils; publication of the results; advocacy in socio-environmental fora and gatherings; monitor and participation in defining Socio-economic and Ecological Zoning (ZSEE).

Nationwide, advocacy work in socio-environmental network fora and gatherings and in public-policy councils; coordination by FORMAD with other States; influence embassies on the results.

Internationally, in The Netherlands and Europe, bring unsustainable practices to the attention of policy makers; demand the adoption of social criteria for access to land, food security, health and no use of pesticides that are banned in Europe; publish the results of the research on the global biofuel market and other relevant fora.

Colophon

Please include the following colophon in your report.

Colophon

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This study was carried out in the framework of the Sustainable Biomass Import regulation, with financial support from the Ministry of Economic Affairs.

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