



## CONFERENCE ON AVIATION AND ALTERNATIVE FUELS

Rio de Janeiro, Brazil, 16 to 18 November 2009

### Agenda Item 1: Environmental sustainability and interdependencies

#### BIOFUELS SUSTAINABILITY SCORECARD

(Presented by the Inter-American Development Bank)

The Inter-American Development Bank is pleased to present the IDB Biofuels Sustainability Scorecard ([www.iadb.org/biofuelsscorecard](http://www.iadb.org/biofuelsscorecard)) to the ICAO Conference. The Scorecard is a web-based tool that allows users to assess the level of sustainability of a biofuels project. The Scorecard was designed to be useful for project developers, including people at all stages of production; financial institutions; private investors; and environmental and social safeguard reviewers, but it can also be used more broadly as a conceptual tool to outline criteria that should be assessed in biofuels development. The Scorecard can be used at multiple stages of the project lifecycle: in project development, project screening, initial analysis, and then again throughout due diligence and investment approvals. By using the Scorecard at multiple stages, users can identify areas that can be improved and then measure the tradeoffs associated with changes in different areas, thereby resulting in more sustainable biofuels projects.

## 1. INTRODUCTION

1.1 The IDB, established in 1959 to support the process of economic and social development in Latin America and the Caribbean, is the main source of multilateral financing in the region. The IDB Group provides solutions to development challenges by partnering with governments, companies and civil society organizations, thus reaching its clients ranging from central governments to city authorities and businesses. The IDB lends money and provides grants. With a triple-A rating, the Bank borrows in international markets at competitive rates. Hence, it can structure loans at competitive conditions for its clients in its 26 borrowing member countries. In addition, it also offers research, advice and technical assistance to support key areas like education, poverty reduction and agriculture. The Bank is also active on cross-border issues like trade, infrastructure and energy. The goals of the Sustainable Energy and

Climate Change Initiative of the IDB are centered around the provision of comprehensive sustainability options in areas related to the energy, transportation, water and environmental sectors, as well as that of building climate resilience in key priority areas vulnerable to the impacts of climate change. In September 2008, the IDB launched the first version of the Biofuels Sustainability Scorecard, and has recently published an updated version available at [www.iadb.org/biofuelsscorecard](http://www.iadb.org/biofuelsscorecard).

1.2 This paper presents an overview of the IDB Biofuels Sustainability Scorecard including a description of its application and a discussion of how the Scorecard addresses some key sustainability issues.

1.3 This information paper is submitted to inform deliberations at the Rio de Janeiro, Brazil meeting.

## **2. BIOFUELS SUSTAINABILITY SCORECARD GOALS AND INITIAL RESULTS**

2.1 The objective of the Scorecard Team was three-fold; (i) to develop a tool to help screen biofuels projects given high demand and increasing sustainability concerns, (ii) to develop a tool for stakeholders to understand the sustainability concerns related to biofuels development, and (iii) to increase and ensure the sustainability of the IDB's investments in biofuels. The IDB was able to accomplish those objectives by ensuring that the complex details of multiple sustainability indicators were presented in a user-friendly web-based tool, which enables stakeholders to ask key questions about sustainability and easily understand the tool's results. In particular, the Scorecard has been extremely well received by investors due to its ease of use and its capacity to address the most specific concerns about biofuels posed by civil society.

2.2 The Scorecard is a web-based tool that allows users to assess the level of sustainability of a biofuels project. The Scorecard was developed to be consistent with the Roundtable on Sustainable Biofuels (RSB) Principles and Criteria<sup>1</sup>. Within the parameters set out by the RSB principles, the Team developed specific indicators and associated colors to those indicators according to their sustainability level. For example, bright green means that the practice meets or exceeds best environmental and social practices and red indicates clearly unsustainable (and often illegal) practices. The end result of the Scorecard is a color map where the user can see its performance across different environmental and social areas and clearly see which areas may require further analysis and improvement.

2.3 In this manner, the Scorecard provides a tool to think through the complex issues associated with biofuels from the field to the tank. The Scorecard was designed to be useful for project developers, including people at all stages of production; financial institutions; private investors; and environmental and social safeguard reviewers, but it can also be used more broadly as a conceptual tool to outline criteria that should be assessed in biofuels development. The Scorecard can be used at multiple stages of the project lifecycle: in project development, project screening, initial analysis, and then again throughout due diligence and investment approvals. By using the Scorecard at multiple stages, users can identify areas that can be improved and then measure the trade-off associated with changes in different areas.

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<sup>1</sup> The Roundtable on Sustainable Biofuels (RSB) is a key multi-stakeholder initiative to develop standards for the sustainability of biofuels. The Roundtable is an initiative of the Swiss EPFL (École Polytechnique Fédérale de Lausanne) Energy Center. In 2008, IDB formally partnered with the RSB.

2.3.1 Since its development in September 2008, there have been over 15 projects run through the Scorecard. The Scorecard has raised the interest on sustainability issues that would not have been taken into account had many developers and investors not completed it. It has encouraged adjustments and improvements in the design and development of projects and TCs, including the incorporation of (i) cogeneration plants; (ii) waste management mechanisms; (iii) systems for efficient use of water; (iv) training programs; and (v) enhanced corporate responsibility in terms of community involvement and local development. The Scorecard has also contributed to the diversification of energy supply, reduction of dependence on imported fossil fuels, reduction of greenhouse gas emissions and environmental footprint of energy generation, reduction of consumption and growth in energy demand.

2.3.2 In addition, the Scorecard has received substantial attention and praise from external actors. Over 18 external websites have linked, or currently link to the Scorecard, including the US Department of Energy, the International Biofuels Commission, the World Resources Institute, the Bank Information Center, and many others. In addition, we have received the following sampling of feedback from a range of stakeholders:

- “The IDB scorecard is to be praised as a ground-breaking example of a practical tool for enabling the (projected) sustainability of biofuels projects to be assessed relatively painlessly and to be considered in funding decisions”. (**Jonathan Reeves, GBEP Secretariat, FAO**)
- “I think the scorecard generally captures the major sustainability concerns well, and does so in a transparent and accessible format”. (**Ian Monroe, Stanford University**)
- “The scorecard and associated documents are comprehensive, thorough, and easy to use, and should prove useful throughout the use of the project”. (**Christine Dragisic, Conservation International**)
- “The Scorecard can be a useful educational device for project developers to take into account in the design of new biofuel endeavors”. (**Peter May, Amigos da Terra-Amazônia Brasileira**)
- “The Biofuels Sustainability Scorecard is a useful tool for those in the early stages of developing a biofuels project, or for those attempting to assess or compare such projects. Hopefully tools like the Scorecard will help make the assessment of sustainability and impact of a project ubiquitous”. (**Caroline Taylor, UC Berkeley**)

### 3. SIMPLE TOOL FOR ADDRESSING COMPLEX ISSUES

3.1 As discussed, the Scorecard is a web-based tool that includes a list of indicators in key sustainability criteria related to biofuels development including greenhouse gas emissions savings, food security, fertilizer management, water management, carbon emissions from land use, impact on indigenous peoples, and labor rights, as a few examples. Each of these categories contains a myriad of complexity in assessing the sustainability of performance against the indicators included in each category. The Scorecard does not attempt to be a comprehensive assessment of the range of complexities present, but rather serves as a screening tool to highlight areas for further investigation and analysis.

3.2 The siting of a project is arguably the most important issue in terms of sustainability for biofuels development. The location of the project will influence impact on carbon emissions from land

use change, biodiversity, food security, indigenous people, and water management. The Scorecard separates each of these issues into specific categories to measure the impact in each of these categories in order to display the trade-offs that are part of any biofuels project.

3.3 For example, if a project is cited on fallow land, previously used for crop development, this would score higher in terms of carbon emissions from land use change but lower in terms of impact on food security. Another example would be a project that scores lower in terms of water management, due to year-long irrigation, but would potentially score higher in the yield category due to more productive crop growth. Another example is the trade off between mechanized and manual harvesting for sugarcane. Although mechanized harvesting may be more sustainable in terms of local air quality and pollution, it may be less sustainable in terms of local employment as jobs are replaced with machines.

3.4 The Scorecard highlights the range of trade-offs associated with biofuels development by not delivering a final score. The final score instead is a “color map” that shows the performance in each category. In the cases described above, the user would be able to see that scoring green or excellent in one category may result in scoring orange or yellow in another.

3.5 The Scorecard has been designed for all feedstocks in all regions. This leads to further complexity within the categories, but also allows for all biofuels to compete on sustainability issues rather than only within their own feedstock or region. Biofuels development is not appropriate in certain areas and certain feedstocks are not efficient, which would be highlighted in the Scorecard.

3.6 Within the Scorecard there are certain categories that due to their complexity have calculators which assist the user in determining performance. For example, in the energy efficiency of distribution category, the calculator addresses the type of transportation used and the distance at three stages of distribution in order to capture the range of variables present. Another example, is in the water management category. The calculator accounts for time of irrigation, area of irrigation, and type of irrigation in order to take into account each of these variables in assessing the sustainability of water management.

#### **4. PARTNERSHIPS AND NEXT STEPS**

4.1 The Scorecard team continues to be engaged at the global level on biofuels sustainability standards, including partnerships with the RSB, the Global Bioenergy Partnership, the FAO, and the UN Environment Program. Through these partnerships the Scorecard Team has had, and will continue to have, many opportunities to expand the benefits of sustainable biofuel projects and ensure that the IDB is helping to drive future debate on this field.

4.2 The IDB will be working with an NGO working group to add additional spatial analysis aspects to the Scorecard. In the current version, biodiversity is the only category with a spatial analysis tool and results, but in the next six to nine months the IDB will be looking into the possibility of adding data on carbon content of soils and water availability.

4.3 The IDB will be working with UNEP and the RSB on addressing implementation challenges associated with sustainability standards for biofuels and will be convening the first workshop in January 2010.

4.4 The IDB will also be working with UNEP and the RSB on conducting a benchmarking and gap analysis of the various regulatory systems in place (and in the pipeline) for biofuels and the

voluntary standards being developed to see where the Scorecard and RSB criteria will fall and what gaps there may be. Eventually this analysis will be used to create a complimentary tool to the Scorecard that will advise clients on which markets and certification schemes may be open to them.

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