

Biofuels – a Global Vision incorporating developing countries

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Biofuels – a Global Vision incorporating developing countries

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Honourable President of the World Bank

Honourable German Ambassador

Distinguished Ladies and Gentlemen

Dear colleagues,

As Chris Flavin emphasised, biofuels is a hot topic and are discussed all over the globe. The production and use of biofuels have entered a new era of global growth. Therefore, it is an honour for me to be here with you on Capitol Hill and discuss about this exciting topic.

Biofuels need to be addressed with a global vision. The need for a Global vision was why the German Federal Ministry of Food, Agriculture and Consumer Protection contracted GTZ and Worldwatch Institute for the Global study. Suzanne Hunt will present this study later on. I want to thank the WWI for the fruitful cooperation.

GTZ stands for Agency for Technical Cooperation and is owned by the German government. GTZ has offices in more than 60 countries worldwide and is actively involved in supporting development commissioned mostly by the German government.

The German Federal Ministry of Food, Agriculture and Consumer Protection (BMELV) is concerned with producers, up-stream processors and consumers of biofuels in Germany. Germany is the biggest biodiesel producer worldwide at the moment. Thus, the Ministry of Agriculture and its Agency of Renewable Resources (FNR) can look back at a successful integration of German farmers into this new market. Looking ahead, the Ministry of Agriculture aims to design policies in view of the future role of German farmers. Thus, the German Ministry of Agriculture has requested to capture the current global dynamics that will effect the production situation of biofuel in the next 10-15 years.

As Suzanne Hunt will give you an overall global perspective, let me focus your attention on the situation of developing countries and emerging economies. The Ministry of Agriculture has contracted GTZ to organize policy-level consultations and conduct regional/national studies on biofuels in selected developing countries.

In Brazil, China, India and Tanzania, GTZ has contracted renowned institutions and researchers and worked out together in-depth studies and facilitated the political dialogue on the results. Many figures and details came out of these studies that you can access online (www.gtz.de/biofuels-conference).

Some interesting results came out of these national policy dialogues. Let me just summarize the main conclusions.

From the perspective of developing countries:

1. Why do we need to tackle biofuels in a global context?

The competitive advantage of some of the developing countries and (newly) emerging economies is high. The production costs in these countries are low. Consequently there will be a case for international trade. Also the efficiency of environmental benefits are higher – many developing countries can produce more energy with less input than in temperate climates.

But for donors the most important reason is that developing countries are asking for our assistance, as they see here a new option for creating employment, reaching markets and alleviating poverty. They are not only interested in technology transfer, but instead require knowledge on shaping the political framework and setting up institutions.

So what are the main issues when looking at partner countries?

Let me give an example of low production costs. Of course, we talk about **Brazil** first. We all know Brazil is the largest Ethanol-producer worldwide (followed closely by the US). Their production prices are the lowest (**US\$ 0.27/litre** = 0,22 Euro/litre based on energy content) and they can compete with mineral oil prices at 35 €/barrel.

Many other countries now want to learn from Brazil, following their example. Do they stand a chance? If we look at the learning curve in Brazil, we find that productivity in the sugar-cane agri-business has increased by 170 % in the last 30 years. As in other industries, biofuels production would become more efficient over time.

Please keep in mind that Brazil had political support for this sector since the 1970's.

2. What are the main market forces supporting biofuels development in developing and emerging countries?

Increasing energy demand, especially for transport is a major force.

Furthermore concerns for securing the energy supply has speeded up the search for alternatives.

But by far the most important driving force are budgetary constraints that force developing countries more than others to reduce foreign exchange spending.

Brazil is a good example of **foreign currency savings**.

Finally, when we look at the global goal to reduce poverty – the Millennium Development Goal 1 - , we have to seriously consider biofuels. Biofuels development can provide an option for generating employment and reducing poverty – especially in rural areas. China, for example, expects to create **9 Mio jobs in rural areas from bioethanol and biodiesel production**.

3 What are the future options and interests of the countries we looked at?

Let me highlight some answers to the most commonly asked questions:

1. Do these countries have the space to grow biofuels?

Brazil, the main global producer, is planning to expand production. They are only using half of their sugar area for ethanol (i.e. 2.7 million ha) and that equals merely 1.2% of their agricultural area (– and is not located in the rain forest, an issue closely observed internationally).

Brazil also wants to expand in Biodiesel. Currently, the area of oil seeds amounts to nearly **22 million ha**. Just for perspective, this soybean area is 20 times larger than the oilseed area in Germany, which is the global biodiesel market leader.

Tanzania is interested to use **over 40 Mio ha** which are currently not used. Not all of that is suitable for biofuels. But, it estimates that **1.4 Mio ha** are available for palm oil, and a large part of the marginal areas could potentially be suitable for Jatropha.

2. Which technologies will be of interest?

Let's look at China – which in future is the largest consumer of transport fuels worldwide. China is interested especially in **BtL Technology** (biomass to liquid), But the main interest in all countries in the medium term is clearly in biodiesel and bioethanol. Biodiesel production largely is hyped up by the hope to find a biodiesel plant that can grow on marginal land.

1. What will be the market situation in future?

The Bioethanol production in Brazil in the year 2015 is estimated at 20 million t, equivalent to a 60 % increase over current production. 80 % of production is anticipated to meet national demand. That leaves only 20 % or 4 million t for export..

China – as well as India are planning to increase production substantially.

At the same time as these countries invest in expanding their production, they are likely to become importers of Biofuels.

5. What support is needed in developing countries?

a. A solid analysis and pilots together with investors are required

Many countries request to start pilot value chains ('from farm to tank'), especially in remote areas. The German government has started various initiatives to support developing countries in a joint effort of private investment and public support (Public Private Partnership, PPP). In India, for example, GTZ is facilitating cooperation between a German manufacturer for processing plants an Indian investor in Jatropha. We have some colleagues here involved. (Southern Online Biotech 3 TN: Mr Schmidt, Mr Satish, Mr Hare Ram Balaji)

b. international trade regulations need to be clarified

Everybody agrees that the main prerequisite for facilitating international trade is an agreement and enforcement of **standards**. The discussion on standards includes first of all the technical standards. However, it evolves beyond. It is necessary to address concerns with regard to environmental issues and food competition. In a number of other commodities – e.g. for coffee – GTZ is involved in negotiating social and ecological standards that benefit both the producers and the consumers. (And all the industry stakeholders in between).

Food competition is an issue which needs to be taken seriously. Countries like India have set up policies prohibiting the use of agricultural area for biofuel production, and using non-used, marginal areas and by-products instead. In any case, **Food security issues**, competition with food crops and their impact on the poor have to be carefully analysed. And if there is a negative impact, that needs to be addressed.

Environmental issues also need to be carefully analyzed – these will be discussed in detail by Uwe Fritsche this afternoon.

On behalf of the German Government, GTZ has identified its role as mediator in the biofuel standards discussion as a major strength in its future work.

c. Now coming to the third and last and most important issue that came out of the regional studies: **Shaping the national policy framework in developing countries:**

Investors all over the world are pushing ahead. They are ready to invest in feasible biofuel projects. Obviously, the most crucial requirement for any investor is a clear-cut investment environment. Political-level discussion and exchange is important for developing the sector. Here we need to bring people together from all levels into an intensive dialogue. A good example is the **ren21-Network**. Ideas moved forward substantially with a big conference of several hundred experts and decision makers in Bonn in 2004. A great number of activities followed. Right now there is a follow-up Conference in Mexico City.

This political dialogue is exactly what is needed in a country like Tanzania. Especially since the reform of the EU- sugar market may lead to reduction in export options for some developing countries, biofuel production could be a viable alternative for increasing productivity of land use and supporting rural areas.

6. Summary

The regional studies in Brazil, China, India and Tanzania have brought out some interesting issues for the global vision that is required in this sector. And there is a special issue of merging private sector industries with poverty reduction.

The discussions in Berlin - 2 weeks ago upon invitation of the German Minister of the Ministry of Food, Agriculture and Consumer Protection (BMELV) - have illustrated the serious effort to merge national interests of farmers, processors and consumers with our global responsibility.

Currently, pilot operations along the value chain 'from farm to tank' are required most urgently. We have a representative of an Indian company here today. With funds from the German Government, GTZ has brought this company together with a German constructor of processing plants in order to join forces in developing the biodiesel production. Thus, private investment can translate into poverty reduction.

1. It is necessary to see biofuels in the global context. There will be a substantial portion of international trade. The incredible dynamics and complexity of the issue requires country-specific and regional analysis together with the relevant policy makers. With German government funding and private sector funds, GTZ is addressing some of these requests.
2. The newly created biofuels market is now being shaped. Political priorities in the different countries determine to which extent they will have an impact on poverty reduction. They also determine the environmental relevance of the sector, and the economic viability and the social implications, especially on the poor.
3. International trade flows in biofuels are now being shaped. Investments, supplier contracts, and political decisions need to be determined now. Market access is as important as competitiveness. And both issues are determined by international standards.
4. The required technology transfer far exceeds the technical content. It is important to provide support along the value-chain 'from farm to tank'. This includes looking at land access issues, contracts, formation of producer organisations, as well as processing technology and distribution networks.

Thank you for your attention.