Preliminary Plan for the Doctoral Thesis: the Role and Function of Law as the Promoter of the Sustainable Use of Bio-fuels in the Transport Sector

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The Role and Function of Law as the Promoter of the Sustainable Use of Bio-fuels in the Transport Sector

1. Background

On the 31st January 2007, the European Commission proposed new standards for transport fuels aiming to reduce their contribution to climate change through the promotion of bio-fuels.\(^1\) On the 7th February 2007, the Commission proposed legislation on the diminishing of carbon dioxide emissions from new vehicles, particularly through the increased use of bio-fuels.\(^2\) On the 21st February 2007, the EU environmental ministers took a decision to reduce the emissions of greenhouse gases with 20 percent by 2020 through greater use of bio-fuels.\(^3\) This reflects the growing importance of bio-fuels for transports in the EU policy. In the report of the European Environmental Agency from the 26th March 2007, greenhouse gas emissions from transport were called a key obstacle to the EU reaching its Kyoto climate change targets.\(^4\) An “International Conference on Bio-fuels” took place in Brussels in July 2007. The central issues discussed were an international approach to bio-fuels that would reap their potential benefits, and the establishment of an international market for bio-fuels.

Growing interest in the production of bio-fuels results, however, in an increased competition over land use. Large scale biomass production on agricultural lands spills over into food prices and thus, may be counterproductive to the global food supply. It may also conflict with other environmental goals, such as the preservation of biodiversity and maintaining of an open landscape. Further, it can cause difficulties in the development of the forest sector.\(^5\) These effects are hitherto insufficiently understood and current efforts in the EU to formulate sustainability criteria for bio-fuels are at the initial stage.

2. Subject and Purpose

The purpose of the project is to analyze the use of the law as a means to implement the sustainable policy on bio-fuels. I shall investigate and evaluate in what respect legal systems promote respectively restrain trade, production and use of bio-fuels in the transport sector, and how they balance the bio-fuel objective against other objectives important for the sustainable development (such as food production and biodiversity). I shall also identify efficient and less efficient legal constructions and discuss possibly successful legal strategies in promoting sustainable trade, production and use of bio-fuels.

The scope of the topic is wide. It includes the EU level, the international level and the national level. It comprises regulations on trade, production and use of bio-fuels aimed as fuels for motor vehicles, as well as the analysis of the consequences which these regulations can have from the sustainable perspective. Following issues are going to be researched in the future doctoral thesis.

Trade is central, and crucial, for the supply and outlet of bio-fuels. Countries and regions tend to put up different standards and regulations on bio-fuels which in practice function as trade

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\(^1\) IP/07/120, 31/01/2007
\(^2\) IP/07/155, 07/02/2007.
\(^3\) Decision 20/02/2007.
\(^4\) European Environment Agency (EEA) report, Copenhagen, 2007/03/26.
\(^5\) Swedish Environmental Protection Agency Tvågradersmålet i sikte?, report 5754, October 2007.
restrictions. Is there “free trade” with bio-fuels within the world? To what extent is this trade disturbed by legal measures introduced for (more or less explicit) protective reasons? How is it/could it be possible within trade regimes to promote a long term sustainable land use?

Regarding the production and use issues, the aim is to find solutions that may be of interest for the further sustainable development of the EU and Swedish legislation in the area. In this part, I intend to make a cross-cut study through some for the topic interesting countries. I shall make an inventory of, and analyze, promising legal constructions on planning and permitting procedures for the sustainable production of bio-fuels, as well as regulations and restrictions on the use of such fuels as fuels for motor vehicles. The aim is to identify and analyze efficient solutions and obstacles that have been developed in different legal systems.

3. Description of Issues and Organization

My starting point is that the EU policy on bio-fuels in the transport sector seems to be quite ambitious, but not yet sufficiently focused on the more complex sustainability issue. Is it possible to develop the law so as to reach this dual aim by legal means, considering actual, planned and possible legislation in the area?

Trade: Regulations on trade with bio-fuels inside the EU, and between the EU and other world countries will be investigated. One significant issue will be different standards of bio-fuels adopted by different countries. It will be important to analyze what bio-fuel standards are legally accepted by the EU, by countries that produce bio-fuels, and by countries that are interested to use bio-fuels. Possible conflicts between these standards will be examined. The position of the WTO and interplay between the WTO rules and the EU trade restrictions on bio-fuels will be another aspect for the analysis.

- Existing trade regulations and standards of bio-fuels for transports in different countries: To what extent are these regulations and standards compatible with each other? What trade conflicts can be identified? In what respect do the existing law regulations promote respectively restrain the sustainable trade with bio-fuels in the transport area?

Production and use: The EU policy on the production and use of bio-fuels as transport fuels will be researched, as well as relevant law regulations in Sweden and some other EU members that have high ambitions regarding renewable energy (probably the Netherlands and Germany). The purpose is to investigate and evaluate what has already been done to promote the production and use of bio-fuels in the EU, how the system of law functions today, and what can be done to promote sustainable production and use of bio-fuels as transport fuels.

- The legal regulation on planning and permitting for bio-fuel production plants within the EU, in Sweden and a couple of other EU states: To what extent do these regulations promote, facilitate or hinder sustainable production of bio-fuels?
- The legal regulation on use of bio-fuels as transport fuels within the EU, in Sweden and a couple of other EU states: To what extent do these regulations promote, facilitate or hinder sustainable production of bio-fuels?

In this part of the project, the focus will principally lie on the development in the EU and its member states. It should be observed that policy in this area, inclusively legislation, is rapidly developing in different countries all over the world.
• The legal development with regard to the issue in some countries in the world that act as “fore-runners”: The objective with this part is not to make a full analysis of the issue throughout the world, but to identify “good ideas” that may be interesting for the future development within the EU and in Sweden. As previous research in the field is rather scarce, this part of the project is vital for the generation of knowledge.

Finally, a summarizing analysis will be conducted that will highlight possibilities and limitations of the legal systems, which regulate the promotion of trade, production and use of bio-fuels in the transport sector. It will be discussed how these legal systems can possibly be improved in order to achieve the global goals of combating climate change and promoting sustainable development.

• What are the results of the evaluation of the investigated legal rules? To what extent do the legal systems contribute to the prevention of climate change and to sustainable development, and in what respect may they be counterproductive to this aim?
• Is it possible to point out what aspects of the legal systems can be changed and improved in order to more effectively fulfil the above mentioned purpose?

The preliminary organization of the project will be the following:

In Chapter 1, the background for the chosen scientific problem will be presented, the purpose of the work will be formulated, and the method of the investigation will be introduced.

Chapter 2 will be devoted to the theoretical framework. I shall present theories about the role of the law and law regulations in dealing with environmental issues. In Chapter 3, the investigation of trade regulations and standard definitions of bio-fuels in the transport area with a focus on the sustainable perspective will be presented.

In Chapter 4, I shall analyze the promotion of the sustainable production and use of bio-fuels as transport fuels, in the EU and some EU member states.

In Chapter 5, I shall make an inventory and an analysis of an interesting legal development in some “fore-runner” states outside the EU.

In Chapter 6, I shall include the evaluation of the legal systems, which regulate the promotion of the sustainable trade, production and use of bio-fuels in the transport sector. Present possibilities and limitations of the systems of law will be emphasized. Those aspects of the law regulations, that can be improved and developed, will be pointed out.

In Final Conclusions, I shall outline the most important results of my investigation, and sketch the ways for the future research of the topic.

4. Validity for Research and Results

Bio-fuels is a new and rapidly expanding area of research for many sciences. It is a renewable source of energy that does not result in a net increase of carbon dioxide. Thus, it is a natural part of strategies for promoting sustainable development. In Sweden and Denmark there have been studies conducted on the issue of wind power, which is also a source of “green” energy.

6 The book Westerlund, S., Miljörättsliga grundfrågor 2.0, Fyris-tryck AB, Uppsala 2003, will be used as the ground for discussion here.

However, no legal research on bio-fuels has yet been conducted in the Nordic countries. Legal rules and regulations concerning bio-fuels are in demand of investigation.

The proposed research falls in line with the latest environmental policy of the EU, directed towards greater use of bio-fuels in the transport area,\(^8\) increase in the share of renewable electricity,\(^9\) and with the commitments of the EU and its member states under the Kyoto Protocol, aimed at the reduction of greenhouse gas emissions.\(^10\) At the same time, the project considers the setbacks that may occur, from a long term sustainability perspective, if bio-fuels are not discussed in a wider context than “fuel supply”. The subject of the project is urgent and needs to be researched.

The investigation will be carried out in cooperation with other research groups. Discussion is ongoing with the International Institute for Industrial Environmental Economics (IIIEE), which has already initiated environmental research on bio-fuels. Cooperation will also be sought with research teams at other institutions that focus on the investigations relevant for the project, for example the multidisciplinary research group on climate issues with its seat at the Institution for Environment and Energy Systems Studies (IMES) at Lund University and the Institution of Sociology of Law.

The law as a means of implementation, control and development of new techniques and policies aiming at sustainable development may preferably be studied in cooperation with other disciplines concerning technical, economic and policy development. This project should be seen as a part of a broader investigation on the matter, covering aspects from several disciplines. Thus, the sum of the research has a potential to be greater than single parts.

5. Method

The achievement of the purpose of the investigation consists of three steps: to determine valid law, to evaluate it, and to discuss the potential for improvement.

The most effective way to determine the valid law is to use the traditional juridical method in its broader meaning, which suggests that relevant facts shall be obtained from the valid sources of the law, and worked up in accordance with certain methodological principles.\(^11\) The traditional juridical method can be described as a “rule-oriented approach” that typically deals with questions regarding the relationship between different rules and their position in legal system.\(^12\) In the proposed project, the valid law in relation to bio-fuel regulations will be determined in its wider understanding on the basis of legal texts, preparatory works to the chosen systems of law, relevant court cases, as well as other related material, including scientific reports and investigations.

To evaluate the valid law, the approach suggested by Westerlund\(^13\) will be applied. The effectiveness of the law will be investigated in relation to the purpose of the law.\(^14\) More

\(^{8}\) IP/07/120, 31/01/2007; IP/07/155, 07/02/2007.
\(^{9}\) Compare with Directive 2001/77/EC.
\(^{10}\) Decision 2007/02/20.
exactly, the effect which the system of the law has, will be studied in relation to the effect which this system is claimed to aim at. It will be underlined in what respect the valid law impedes respectively facilitates the sustainable trade, production and use of bio-fuels in the transport sector. The contribution of the valid law to the prevention of climate change and promotion of sustainable development will be discussed. After the collaboration with cooperation partners, evaluation methods developed within other disciplines than the law will be considered, to ensure that the results of the research may be relevant with regard to the interaction between disciplines.

The discussion on the improvement will also take its starting point in Westerlund’s approach, which will help to understand how the law of bio-fuels functions practically, and what effects it has. This information will consequently facilitate the future development and improvement of the law system, as well as eliminate the ineffective law regulations. Here the interaction with other disciplines will be also taken into consideration, in order to understand what development is desirable from the point of view of technology and natural science, and how the law can interact with economic and political instruments.

6. Material

For the purpose of the project to be achieved, a broad spectrum of information sources will be gathered, and systematically analyzed. The research material will include not only traditional juridical sources, such as legal texts, preparatory works to the chosen systems of law, and relevant court cases, but also other relevant material, including scientific reports and investigations, reports from enterprises and environmental agencies, and evaluating reports from different states. There are some examples of reference literature that will be used:

- Westerlund, S., Miljörättsliga grundfrågor 2.0, Fyris-tryck AB, Uppsala 2003.

Because of the international character of the investigation topic, the English language will be chosen for writing the project. The author’s knowledge of Swedish, English, Russian and German will be a practical advantage when getting information about juridical regulations at different research levels.