

# Guatemala: desarrollando los biocombustibles en la ausencia del estado

## Guatemala: developing biofuels in the absence of the state

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**Resumen**— Impulsada por varios retos políticos, incluido el cambio climático, la seguridad energética y el desarrollo rural, los biocombustibles han sido promovidos por los gobiernos de todo el mundo. En muchos países, el apoyo político ha jugado un papel clave tanto en la creación de esta demanda, así como las instituciones que rigen su uso. Guatemala, sin embargo, no es uno de esos países. En la actualidad, a pesar de varios intentos de desarrollar una ley nacional de biocombustibles no existe un mercado interno para los biocombustibles. De hecho, el Estado ha jugado un papel menor en el apoyo al sector, ya sea a pequeña o gran escala, para el etanol o el biodiesel. Más bien, se ha dejado a los actores privados, específicamente la industria de la caña de azúcar, a desarrollar los biocombustibles. Este artículo examina los actores clave involucrados en la promoción y la oposición de los biocombustibles, dejando al descubierto una serie de motivos y barreras, que difieren de acuerdo a la parte interesada, la escala de producción y el tipo de biocombustible. Se considera que hay pocas posibilidades de que un mercado de biocombustibles doméstica se desarrollará en el corto a mediano plazo, lo que ha tenido consecuencias en el modo en que los biocombustibles se rigen en Guatemala.

**Palabras Clave**— biocombustibles, mercados, el estado, sostenibilidad.

**Abstract** - Driven by several policy challenges, including climate change, energy security and rural development, biofuels have been promoted by governments across the world. In many countries, political support has played a key role in both creating this demand, as well as the institutions to govern their use. Guatemala, however, is not one of those countries. At present, despite several attempts to develop a national biofuels law there is no domestic market for biofuels and the state has played only a minor role in supporting the sector, whether small or large-scale, for ethanol or for biodiesel. Rather, it has been left to the private actors, specifically the sugarcane industry, to develop biofuels. This paper examines the key stakeholders involved in promoting and opposing

biofuels, revealing an array of motivators and barriers, which differ according to the stakeholder, scale of production and type of biofuel being promoted. It finds that there is little prospect that a domestic biofuels market will be developed in the short to medium term, which has had consequences for the way in which biofuels are governed in Guatemala.

**Keywords**— biofuels, markets, policy, state, sustainability.

### 1. OVERVIEW

Since the turn of the century, biofuels have been promoted as a sustainable alternative to hydrocarbon transport fuels. The most commonly cited drivers are climate change mitigation and energy security, although the potential benefits of biofuels for rural development have also provided an important motivation. As a result, biofuels have rapidly become a favoured policy option and many governments, both in the global North and the global South, have established policy frameworks to promote the production and consumption of biofuels. Biofuels therefore provide an example of a politically-instituted market, in which both the demand and the institutional frameworks that govern their use have to be created. This support has taken the form of research, development and deployment, market development policies and financial incentives. In particular, many governments have legislated demand for biofuels through mandated markets, which require transport fuel suppliers to blend a minimum amount of biofuels in their products. The current policy landscape consists of 31 national biofuel mandates, in addition to 26 state or provincial level [1]. In effect, this guarantees the biofuel industry and fuel suppliers a market of minimum size. Guatemala, however, is an exception and here biofuels have been promoted and developed not by the state, but by

private sector actors. Identified as the strongest potential leader in Central America for the production, trade and use of biofuels [2,3]. Since 2006 the production of biofuels, specifically sugarcane ethanol, has increased from almost nil to more than 103 million litres in 2011/12. Since there is no domestic market for biofuels, virtually all of this production was destined for export markets. This paper examines the key stakeholders involved in promoting and opposing biofuels, their motivations and the opportunities and barriers to the development of biofuels within Guatemala.

## 2. METHODOLOGY

This paper draws on empirical data generated from more than eighty semi-structured and unstructured interviews, which were carried out between November 2010 and July 2013 in Guatemala, Brussels and London. Document analysis, field visits and personal observations provide supporting evidence. The sample of participants was purposive, rather than random, and actors were selected on the basis of their relevance to the research topic. In order to understand the multiple perspectives of those involved both directly and indirectly in Guatemala's sugarcane-ethanol system, a wide range of actors were interviewed which included an ex-Minister of Energy and Mines, human rights activists, the manager of a sugar mill, and peasant farmers. Interviews were recorded, transcribed and coded and then analysed.

## 3. RESULTS & DISCUSSION

There are currently three potential biofuel production models in Guatemala: large-scale ethanol from sugarcane; large-scale biodiesel from palm oil; and small and medium-scale biodiesel from various feedstocks. The scale of biofuel production is dependent on a number of factors, including: scale of feedstock production, type of cultivation system, financial investments, potential volume of biofuel production and end markets. These models are not mutually exclusive nor are all models of production taking place. Specifically, there is no large-scale production of biodiesel, although there is some small and medium-scale biodiesel production for use by local communities, commercial fleets and municipal vehicles.

An examination of the key actors involved in these different models of biofuel production reveals a complex picture in which actors – motivated by different objectives and operating under different assumptions and constraints – articulated very different perceptions, hopes and

concerns for regarding the development of biofuels in Guatemala. Some viewed biofuels as little more than an opportunity for economic diversification, others spoke of the multiple environmental, economic and social benefits that biofuels could deliver; still others expressed their concern that biofuels would only benefit economic elites whilst further disadvantaging rural communities.

All three models of production have powerful economic drivers. For example, the potential contribution that biofuels could make to the incomes of rural households was a key motivator of small-scale projects. At the opposite end of the scale, the opening up of international biofuel markets provided opportunities for the sugar mills to diversify production. Uncertain profit margins had also provided a challenge to the developing biofuel sector, leading one fuel ethanol producer to cease production. Similarly, the unfavourable economics of producing biodiesel from palm oil was an important barrier to the development of a large-scale biodiesel sector. While globally, governments have provided key support for biofuels, establishing a range of mechanisms to incentivise their production and use, in Guatemala, state support for biofuels has been largely absent. In the absence of the state, it has been left to well-capitalised actors, specifically Guatemala's sugarcane elites, to decide the direction of the biofuel sector's development. These actors are motivated primarily by profit; other potential drivers, including those delivering public goods (for instance, climate change mitigation), hold much less salience. Biofuels in Guatemala have not developed in response to a need for energy security or to mitigate climate change, but rather due to international market demand. Furthermore, given Guatemala's history of privileging the needs of domestic elites, the biofuel model that has developed is unlikely to deliver the benefits posited in the biofuels literature.

## 4. REFERENCES

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