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Research Article

Food Security and Biofuels Regulations: the Emulsifying Effect of International Regime Complexes

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Abstract

International institutions are proliferating over a wide range of issue areas, creating what have recently been described as regime complexes. More than complicated arrangements, regime complexes are structures: they are more than the sum of their parts, i.e. individual international regimes. While the concept of international regimes holds strong promise in this direction, academic research on regime complexes has mostly focused on how agents shape regime complexes but less on how complexes influence agents. This contribution aims at filling this gap by studying the effects that regime complexes might have on global governance, focusing more narrowly on the effects of regime complexes on non-state actors' (NSAs) strategies with regard to agenda setting for new international regulations. More precisely, we hypothesise that regime complexes create an 'emulsifying effect' for pro-active NSAs to push for new regulations whereby the collective effect of non-state actors within and across regime complexes become greater than the sum of their individual effects within individual regimes. We use the examples of food security and biofuels regulations at the international level as a case study with a special focus on the European Union.

Keywords

Biofuels; European Union; food security; non-state actors; regime complexes; renewable energy directive

International institutions are proliferating over a wide range of issue areas, creating what has recently been described as 'regime complexes' (Orsini, Morin and Young 2013). For instance, no fewer than five key international institutions including the Food and Agriculture Organisation (FAO), the World Trade Organisation (WTO) and the G20 deal with food security¹ (FS) at the international level. The analytical added value of regime complexes, with respect to the former conceptualisation of world politics, is to focus on the structure in which international institutions are embedded. More than complicated arrangements, regime complexes are structures: they are more than the sum of their parts, i.e. individual international regimes. While the concept of international regimes holds strong promise in this direction, academic research on regime complexes has mostly focused on how agents shape regime complexes most of the time through forum shopping, forum shifting or forum linking strategies (Orsini 2013). For example, Florian Rabitz explains how states influence the different elements of the regime complex of genetic resources to maintain their privileged position in managing worldwide genetic resources (Rabitz 2016). However, there is far less focus on how complexes influence agents. What does it mean for international actors to evolve in a context of regime complexes? Do regime complexes change the strategies of international actors? And if so, in what ways?

This contribution seeks to fill this gap by studying the effects that regime complexes have on global governance. While this research ambition is vast, we narrow it down by looking at the effects of regime complexes on non-state actors' (NSAs) strategies with regard to agenda setting for new international regulations. More precisely, we hypothesise that regime complexes create an 'emulsifying effect' for pro-active NSAs to push for new regulations whereby the collective effect of non-state actors within and across regime complexes become greater than the sum of their

individual effects within individual regimes. We use the examples of FS and biofuels regulations at the international level as a case study, with a special focus on the European Union. We illustrate how NSAs failed to push for new worldwide FS regulations in 2008 and how, later, in 2012, they used the biofuels regime complex as a backdoor to bring back FS onto the European negotiation table. Our analysis relies on secondary literature, on official documents and on a set of interviews with key actors using a snowball sampling methodology (asking each new interviewee about other important players to interview) and respecting triangulation (including interviews with actors from different categories, see Annex).

The following developments are organised in four parts. Part 1 discusses the theoretical and analytical framework of the study and presents our research hypothesis. Part 2 illustrates the situation of the case study in 2008. Part 3 looks at the situation of the case study in 2012. Part 4 goes back to the conceptual framework and discusses the emulsifying effect.

ANALYTICAL FRAMEWORK: REGIME COMPLEXES AND THEIR CONSEQUENCES FOR THE POWER OF NSAS IN GLOBAL GOVERNANCE

A Brief State of the Art on Regime Complexes

Regime complexes were first identified in 2004 (Raustiala and Victor 2004) and later precisely defined as ‘networks of three or more international regimes that relate to a common subject-matter, exhibit overlapping membership, and generate substantive, normative or operative interactions recognized as potentially problematic, whether or not they are managed effectively’ (Orsini, Morin and Young 2013: 28). Regime complexes are networked structures, made of regimes, within which states and NSAs interact. The success of the concept has been contemporaneous to the identification of regime complexes in an increasing number of international domains, such as peace building, FS or trade, to cite but a few. This success also led to the development of numerous similar concepts in the scientific literature, such as ‘institutional interactions’, ‘institutional linkages’, ‘inter-organisationalism’ or ‘institutional fragmentation’ (for a synthesis see Zelli and van Assel 2013; Biermann 2008).

Research on regime complexes has so far followed three paths. First, scholars have concentrated their efforts on identifying, describing and characterising regime interactions (Sanderink, Widerberg, Kristensen and Pattberg 2017; Morin and Orsini 2013; Oberthür and Gehring 2006; Rosendal 2001). Second, scholars have analysed the origins of regime interactions, asking the question of who shaped regime complexes in the first place, highlighting the role of important state and non-state actors in multiplying negotiation venues through forum shopping, forum shifting and forum linking (Rabitz 2016; Morse and Keohane 2013; Orsini 2013; Graeger and Haugevik 2011). Third, scholars have investigated the management of regime complexes, defined as ‘conscious efforts by any relevant actor or group of actors, in whatever form or forum, to address and improve institutional interaction and its effects’ (Oberthür and Stokke 2011: 6. See also Logmani, Krott, Tymoteusz Lecyk and Giessen 2017; Young 2017; Naiki 2016).

As a result, research on regime complexes has so far concentrated on the description, creation and management of complexes understood as independent variables. To be sure, the existence of such studies already says a lot about the phenomenon of regime complexes. However, it is also time to investigate the consequences that regime complexes have for global governance, using them as dependent variables. How do regime complexes affect the governing of global issues? With this idea in mind, the next sub-section proposes a reflection on the changes regime complexes bring to international affairs.

Power within and across Regime Complexes: the Emulsifying Effect

We contend that the existence of regime complexes creates an emulsifying effect, helping actors to push for the agenda setting of new regulations. This emulsifying effect is different from the sum of the individual effects each actor might have in each individual regime. It is therefore likely to boost the power of actors. Linking different regimes and different regime complexes helps actors to amplify the scope of their actions. More precisely, two emulsifying mechanisms – to which so far few publications implicitly refer – are likely to be at play.

First, regime complexes multiply the numbers of actors concerned and increase networking activities. The networked governance structures of regime complexes, as networks of regimes, foster the creation of new networks of international actors. As early as 2004, Haas noted that

there is the potential for replacing the traditional dichotomous concepts of global governance organized hierarchically or anarchically with a network model of decentralized global governance performed by multiple actors, whose interactive effects in practice would yield more effective global coordination and performance of major governance functions' (Haas 2004: 12, our emphasis).

Research on regime complexes has shown that NSAs play an increasingly political role within them. For instance, the regime complexes for sustainable fisheries or forestry involve a high number of non-governmental environmental organisations (NGOs) (Auld 2014). The distribution of authority between different categories of actors is likely to change in a context of regime complexes.

Second, regime complexes are likely to foster the use of new advocacy frames.² Authors have recognised that regime complexes present opportunities for players to pursue their strategic agenda (Urpelainen and Van de Graaf 2015). For instance, on intellectual property issues Rabitz (2014) shows how developed and developing countries are continuously fighting about norms and how they strategically use one entry of the complex instead of another to push for their political preferences. If levels are multiplied within regime complexes, it seems fair to announce that these political opportunities are also available to external constituencies willing to influence the political issues at play within regime complexes. There are already indications that certain norms and actors navigate from one regime complex to another (Allan 2014; Orsini 2013). This means that actors active in one complex can try to push for their preferences in other regime complexes and, by doing so, can bring new frames within these regime complexes or even hybridise their frames with other actors. When several regimes are concerned, the potentiality to use different strategic thinking and frames is amplified.

Both mechanisms are needed for an emulsion to happen. Without actors to support frames, these frames are unlikely to resonate. Without frames, actors are unlikely to be able to shape the political agenda. Moreover, we hypothesise that the emulsifying effect will take place for pro-active actors who are in favour of the regulatory agenda. Because regime complexes are regulations, it seems logical to foresee that they will help foster new regulations. It is also important to keep in mind the extent to which this hypothesis could be falsified. Because of the multiplication of actors or forums, there might be a risk that complexes dilute policy solutions instead of enabling new regulations. Strategic players could also deviate from important political claims by orientating them toward less dynamic parts of regime complexes.

Talking about the appearance of new actors' networks and of new frames for the emulsifying effect resonates with the literature of transnational advocacy networks (TAN). Traditionally, TANs 'include those actors working internationally on an issue, who are bound together by shared values, a common discourse, and dense exchanges of information and services' (Keck and Sikkink 1999: 89). In

our case, the existence of new regime complexes fosters the creation of new TANs that enter into horizontal interactions, mobilising international institutions working on different issue areas.

As a first step towards proposing a fully testable model, this paper looks at one empirical illustration that gives insights into the plausibility of the research claims made in this part. More precisely, we use the examples of FS and biofuels regulations as a case study and we concentrate on NSAs who have been particularly active on these issues. We illustrate how NSAs failed to push for new FS regulations during the 2008 FS crisis (part 2) and how, later, in 2012, they benefited from the emulsifying effect and used the biofuels regime complex as a backdoor to bring back FS onto the negotiation table (part 3). Part 4 then goes back to the conceptualisation to analyse the case further.

THE FAILURE TO ADVANCE THE FOOD SECURITY AGENDA IN 2008 AND THE FIRST (UNSUCCESSFUL) ATTEMPT TO LINK FOOD SECURITY AND BIOFUEL ISSUES

Setting the Institutional Scene: the Food Security and Biofuels Regime Complexes in 2008

The regime complex for food security appeared in the 1990s. Initially, one unique international regime for FS was created around the desire to eradicate hunger. It was mainly embodied by the Rome-based UN food agencies: the FAO, the World Food Programme (WFP) and the International Fund for Agricultural Development (IFAD). Progressively, other institutions got involved in this regime such as the World Bank, the Consultative Group on International Agricultural Research or the UN Standing Committee on Food and Nutrition, to the point that in the 1990s, the proliferation of institutions marked the emergence of diverging views and to the constitution of a regime complex for FS. This complex is organised around three international regimes.³

The first regime is the international trade regime with the WTO as a core institution. Since its creation and the discussions on the *Agreement on Agriculture* (AoA), FS has been at the centre of WTO negotiations. Indeed, the AoA rules on domestic food assistance, the operation of food reserve and the financial support permitted to strategic FS commodities. The second international regime is the agriculture regime. Many institutions in charge of agricultural matters are also in charge of FS. This is the case, for example, of the FAO (the main UN agency in charge of FS and agriculture) or of the European DG on Agriculture, Fisheries and Food. Moreover, FS issues are often discussed in agreements on agricultural matters (e.g. the European Common Agricultural Policy). The third regime is the international human rights regime. Even though the right to food is not a new concept, it took on a greater salience after the 1996 World Food Summit. It complemented the FS concept. Rather than a technical or an economic issue, FS was now seen as a legal issue. Three important institutions of this regime are the Office of the High Commissioner of Human Rights (OHCHR), the International Covenant on Economic, Social and Cultural Rights (ICECSR) and the UN Council of Human Rights through the Special Rapporteur on the right to food. NGOs, such as Oxfam or Action Aid, are also part of this international regime. Some of them work particularly in times of crisis, others focus on small farmers' rights or on fair trade for agricultural commodities. They interact with the two other international regimes but they broadly work for the respect of human rights.

In 2008, the FS regime complex was partly fragmented, and the three international regimes conflicted on many issues – for example, the WTO pushed for a greater access of agricultural commodities to the global free market, while the OHCHR and the FAO encouraged the development of local agriculture – but it was also well established.

On the other hand, in 2008, there was no regime complex for biofuels. Discussions on biofuels were rather new on the international agenda, and international institutions were only slowly beginning to

develop an interest in the topic. More precisely, two criteria to identify a regime complex were not fulfilled in 2008. First, fewer than three international regimes were active on the issue at that time. The development regime, through the World Bank, started financing biofuels projects in 2007. The energy regime, with the European Directive 2003/30/EC on biofuels, promoted the use of biofuels in transportation as early as 2003. But no other international institution had, by that time, entered into sustained discussions on biofuels. Within the environmental regime, no projects and no particular discussion on biofuels were specifically on the agenda of the United Nations Framework Convention on Climate Change. Also, discussions in the WTO on the status of biofuels (see below) were starting but were not institutionalised and no cases had been brought to the dispute settlement body. Second, the definition of regime complexes also mentions that interactions are recognised as potentially problematic. This was not the case in 2008 when there was a general consensus on biofuels being a useful source of energy, beneficial to the environment and potentially positive for development.

The First Failed Attempts to Link Food Security and Biofuels and to Establish Regulations in 2008

In 2008, a food price crisis drew several international institutions' attention to a recurring phenomenon. From 2005 to 2008, food prices rose by 83 per cent. At the beginning of 2008, basic food commodity (corn, wheat, maize, rice) prices doubled (and in some cases tripled) in a few weeks, leaving 963 million people suffering from undernourishment, compared to 923 million in 2007 (UNCTAD 2009: 1).

Reactions to solve the crisis developed. Several international organisations discussed solutions to regulate the food commodity markets; the UN Special Rapporteur met with several political leaders to advance on the FS agenda; NGOs such as ActionAid or Oxfam International launched campaigns to raise awareness (ActionAid International 2008; Oxfam International 2008). However, disagreements concerning the origin of the food crisis impeded the adoption of new international regulations. Many usual suspects were blamed: the worldwide economic crisis; speculation on food commodities that distorted market prices; repeated drought in Asia and in the USA that reduced supply. But one new factor was pointed out as a potential explanation of FS problems: the production of biofuels.

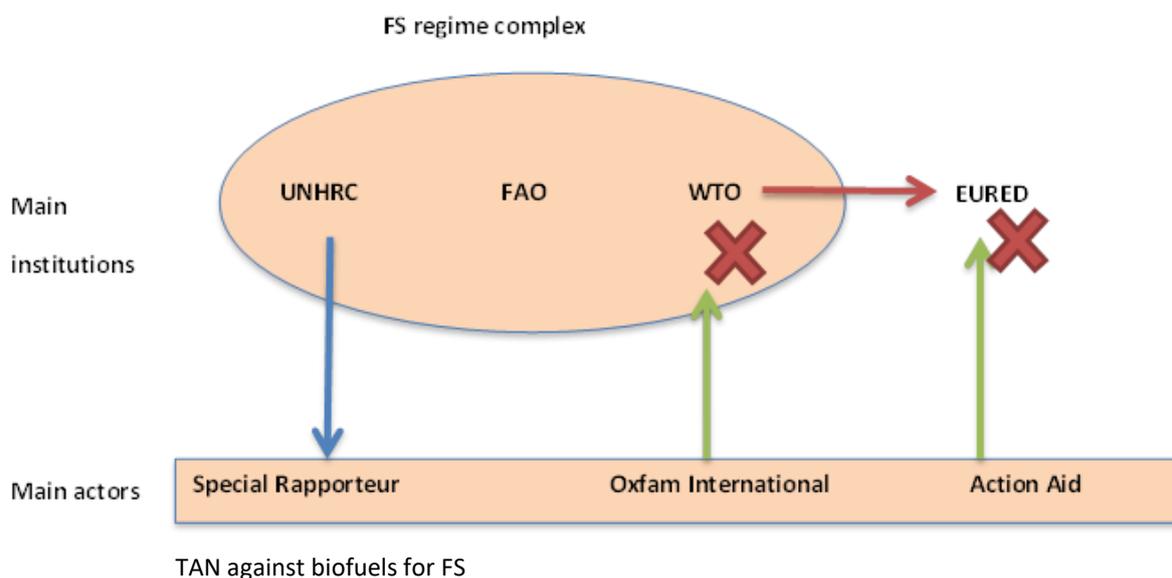
Biofuel production has a complicated relationship with FS, leading to a 'food vs. fuel scenario' (Margulis 2015; see also UNCTAD 2009: 6). Before the 2008 crisis, several actors had already made a link between the two issues. In 2004, the UK's Renewable Transport Fuel Obligation required oil suppliers to blend an increasing amount of biofuel into their petrol and diesel. Many concerns were raised and British civil society questioned whether there would be enough land available to meet this obligation (Department of Transport 2008). In 2006, the European Commission required more investigation into the matter (European Commission 2006: 7). More controversially, in 2007, the first Special Rapporteur, Jean Ziegler, announced to the UN General Assembly: 'it is a crime against humanity to convert agricultural productive soil into soil which produces food stuff that will be burned into biofuel' (UN News Centre 2007).

But for the first time, during the 2008 food crisis, several international organisations tried to embrace the biofuels vs food debate. In June 2008, the FAO, together with the WFP, IFAD and Biodiversity International on behalf of the CGIAR system hosted the 'High-level Conference on World Food Security: the Challenges of Climate Change and Bioenergy', where 181 heads of states and the European Community adopted a declaration of principle that reasserted the necessity for national governments to prioritise FS over bioenergy (FAO 2008). In 2009, the G20 summit called for more analyses on the topic and in 2011 commissioned a report, co-authored by ten international

organisations (including FAO, WTO and the World Bank) (FAO, IFAD, IMF et al. 2011), on the interactions between biofuels policies and food.

Despite these debates and the pressures of several NSAs, no concrete measures were taken on food security globally or on biofuel production, as illustrated in Graph 1a below. Several international and regional organisations, including the WTO and the European Union, refused to link the two issues (red crosses on Graph 1a). In 2009, states also tried to persuade the Committee on World Food Security to re-orientate its work towards biofuels. But this led to a major backlash as explained by one former representative of the EU at the time: ‘Now the moment the High Level Panel of Experts published this report [...] about biofuels, that was considered a political report and non-objective by the DG Energy’ (interview 3) and the EU stopped supporting the reform.

Graph 1a. The first failed attempts to establish food security regulations in 2008



The European level is particularly illustrative of the failure encountered by FS advocates. At the European level, 2008 was also a period of negotiation for the adoption of a renewable energy directive: the RED Directive. While food security advocates had already warned the Commission of the potential links between biofuels and food security, DG Development, in charge of FS in the EU, remained silent during the whole process. Biofuel discussions were not part of its priority and the DG was not yet totally convinced of the negative link between biofuels and FS (interviews 5 and 7). In 2008 already, a study conducted for DG Development on the impact of biofuels in developing countries was somewhat buried (interview 3). Another objective pursued by NGOs was to include obligatory sustainability criteria for biofuels within the RED. The adopted text stipulated that biofuels used in the EU had to meet certain sustainability certification schemes to be eligible for funding or to count towards national targets. Environmental obligations were mandatory while social ones (including FS) were not. The consideration of FS is also light in the 2009 directive. Business lobbies and the Commission indeed feared that mandatory obligations would create legal uncertainty (Sharman and Holmes 2010). Moreover, while drafting the directive, the EU was conscious of potential WTO conflicts (interview 4). As a result, the 2009 RED mostly rests on voluntary measures and does not restrict the use of biofuels.

The 2009 RED contains a 10 per cent target for energy from renewable sources in transport. For the Commission, the RED pursued three objectives: (i) climate change mitigation; (ii) energy security; (iii) and regional development in Europe (interview 4).⁴ At the time, for the Commission, promoting biofuels was seen as a way to sustain the agricultural sector by supporting small European farmers. Following the 2008 crisis, however, Oxfam International was present and wanted to take the opportunity to include FS provisions and propose biofuels limits within RED. The target was finally turned into a 10 per cent renewable energy target, and no longer specified biofuels (the initial wording was a 10 per cent biofuels target), an important breakthrough for several anti-biofuels advocates, that however had no link to food security issues and that was still a target, not a limit.

As summarised by one interviewee:

Yes, lots of people talked about FS in 2008 but if you then really look at the real action after that it was minor. I think in the end very cynically you could say that the topic was not long enough high on the political agenda' (interview 2).

A number of concrete reasons have been given to explain this lack of action after 2008, such as the fact that prices came back to normal quickly, that other issues entered the international political agenda like climate change or economic crises. Overall, FS was also seen as a very contested and complicated issue (interview 2).

In the discussion of the 2009 RED, the EU did not take into account FS, despite NSAs' attempts. While several landmark studies on the importance of warranting FS were published in 2008, including in the Science magazine (Fargione, Hill, Tilman, et al. 2008; Scharlemann and Laurance 2008), these studies came too late to resonate with the NSA's campaign.⁵ While no concrete results were visible when FS advocates asked for biofuels limitation in 2008, we develop below the argument about how, during the revision of the European RED Directive, FS advocates again inserted the issue onto the international political agenda through the biofuel backdoor, this time to translate it successfully into EU energy policies. In that process, FS advocates benefited from the emulsifying effect of the biofuels regime complex to further their political agenda (as discussed further below).

SUCCESS IN ADVANCING THE FOOD SECURITY AGENDA IN 2012 THANKS TO THE (SUCCESSFUL) LINKS TO BIOFUELS

Setting the Institutional Scene after 2008: the Biofuels Regime Complex as a New Independent Variable

Despite its growing international relevance (debates about green energy, climate change or energy prices), several authors consider that there is no international regime on biofuels (Margulis 2015; Bastos Lima and Gupta 2013), in the sense that there is no treaty or organisation dealing with biofuels regulation, producing consensual knowledge on this topic or setting international standards. In fact, the regime is not unique. After 2008, the international governance architecture for biofuels slowly transformed into a regime complex comprising four different international regimes: trade, climate change, development and energy regimes.

Biofuels are negotiated within the trade regime. The WTO is a key arena for debates about trade in biofuels. Within this context, biofuels are classified as agricultural or industrial goods, depending on their production process. This has implications when determining the level of national subsidies

permitted. More precisely, more subsidies are allowed for agricultural and industrial goods than for environmental ones. Exporting countries such as Brazil therefore push for biofuels to be classified as environmental goods to open the worldwide market further, facing opposition from, among others, the EU, which favours national subsidies. As a result, several emerging economies have brought cases in front of the dispute settlement mechanism to denounce biofuels subsidies. More precisely, four disputes are under way: three by Argentina against the EU (in August 2012; May 2013; December 2013) and one by Indonesia against the EU (June 2014).

The second regime is the climate change regime. The UNFCCC guides member states to mitigate climate change by limiting the use of fossil fuel energy and is therefore a key actor of the complex (interview 1). Two Clean Development Mechanism projects of the UNFCCC include biofuels. The first was approved in September 2012 and the second in May 2013. Biofuel projects are rather hard to validate as CDM projects. While the use of biofuels is clearly seen as a way to mitigate climate change, their production process is known for being carbon consuming. Moreover, in the past, there have been problems of double counting of emission reductions by biofuel producers and users (CDM executive board n.d.).

The development regime is represented by one additional institution dealing with biofuels, the World Bank, which since 2007 has invested in 15 biofuel projects in developing countries. By doing so, the Bank recognises the potential of biofuels for climate mitigation and development goals. Finally, the energy regime is present through the 2015 EU renewable energy directive, the revised version of RED 2009/28/EC that sets biofuels limits in the name of food security objectives (see below).

The biofuels regime complex is at an early stage, fragmented, and covers different specialisations. Progressively, the two regime complexes – FS and biofuels – have several institutions in common, notably the WTO, the World Bank and the EU.

The Revision of the 2009 RED: a Major Breakthrough for the Food Security Agenda

While FS advocates failed to influence the 2009 RED, to please NGOs, a bi-annual reporting obligation was included in the text that could lead, if appropriate, to a revision of the directive. As explained by one representative from Oxfam International: ‘we [...] managed to include a review of the policy that should have happened in 2010 in light of the scientific progress’ (interview 7). On this basis, FS advocates continued to be active and to push for a revision:

there was a continuous discussion on whether the sustainability criteria that were agreed upon were enough, whether they were far reaching enough, whether they were doing their proper job. So, from that moment in the political arena there was a kind of a continuous asking for a review of biofuel policies, which then came on the table in 2012 (interview 2).

Soon, FS issues reappeared on the agenda and the food vs fuel debate shifted to the centre of the EU RED Directive. The fact that the EU became a key forum in this debate is explained by several factors. First, the EU is progressively party to both regime complexes. Second, it was under international influence already in 2008, meaning that it worked as a model laboratory of what was at hand: ‘there was a debate at the FAO and at the UN level so [...] all these discussions were there and had also an impact on what was discussed at the European level’ (interview 2). Third, the EU situation has been important for major exporters like Brazil, Malaysia and Indonesia who were also active on both issues (interview 2). This was also true for NSAs: ‘there were also a lot of non-

European NGOs influencing the EU debate because they knew that the outcome of the European debate would influence other policies around the world' (interview 2).

On 28 April 2015, the European Parliament voted to approve new legislation, which limits the way member states can meet the target of 10 per cent for renewables in transport fuels by 2020. The legislative process ended in September 2015 with the adoption of the text by the Council (European Union 2015). More precisely, the revised RED sets a cap (7 per cent) on the contribution of food and feed biofuels and puts a greater emphasis on the production of advanced biofuels from waste feedstock. Member states are invited to include the law into national legislation by 2017. The issue of FS is central in the revised RED, with more than 30 occurrences of the word 'food' in the final version.

The 7 per cent cap is actually the result of a bargaining process that is not totally in favour of ENGOs and development NGOs. For the revision of RED, at the beginning, the Commission proposed a 5 per cent limit for biofuels. Such a proposal still gave space to growth, because the market share at that time (October 2012) was about 4.5 per cent (interviews 3 and 4). ENGOs and development NGOs aligned themselves with the Commission, and proposed a period of transition towards 0 per cent biofuels. Pro-biofuel lobbies, to the contrary, pushed for a higher percentage. In the end, the adopted 7 per cent is a compromise between DG Env, DG Trade and DG NRJ (interviews 4, 5 and 7). For biofuels versus FS campaigners, 7 per cent is not a real victory.

Yet, the main victory in 2012 was the FS advocates' ability to bring back FS issues into the debate. What is achieved concretely might seem fragile but as explained by one campaigner:

[...] I don't think the reform will do very much in the real world in terms of making a difference to FS or a big difference in the quantity of biofuels that will be used [...] because the ambition of the reform became weakened during the legislative process (...). But what it represents is a bigger political change [...] Policy-makers in the European Parliament, in the Commission and in some Member States, generally no longer see biofuels as a sustainable viable alternative for transport (interview 7).

And this political change is a major achievement for campaigners against the use of biofuels, being ENGOs or development NGOs.

COMPARING 2008 AND 2012: NON-STATE STRATEGIES AND THE EMULSIFYING EFFECT OF REGIME COMPLEXES

Regime Complexes as New Networking Potentialities for NSAs

The emergence of the biofuels regime complex enabled NGOs to create new networks that were helpful in overcoming resource scarcity. In 2008, FS NGOs, which are mostly development NGOs, had limited funds and human resources to sustain a long-term campaign for food security globally. In 2012, within the European forum, they initiated networking with environmental NGOs that were preparing for the revision of the RED and were opposed to biofuels for environmental reasons (see Graph 1b representing both the coalition against biofuels for FS reasons and against biofuels for environmental reasons). Progressively, a TAN bridging FS advocates and environmental protection advocates emerged (see Graph 1b for the names of the main organisations included). One consultant who wrote a report on the organisation of the NGO coalition at the time explains:

Because of the timing of the campaign there was the inability to sustain funding for all of them for such a long period of time because this legislation process is very long. And it is not very sexy to campaign on, to find supporters and to translate [...] it is very very technical. But there are a few very biofuel-passionate people in Brussels (interview 3).

These passionate people put their resources together. It was also difficult for campaigners to build networks outside the EU (interview 7), but the FS issue was a good opportunity to do this.

The 2008 international controversy planted the seeds of a stronger organisation around the biofuels vs food debate. More precisely, NGOs started to create networks that they would never have thought of, had they not been put in initial contact during the 2008 crisis:

there was a lobby group in Brussels where environmental and development NGOs have joined to work on biofuels, which has been quite unprecedented because they usually work on kind of separate agendas: Oxfam, ActionAid, Greenpeace, Friends of the Earth (FOE), Birdlife International (interview 3).

Contacts were made between organisations and within some of them: for instance, after the 2008 crisis and the adoption of the RED

FOE groups in the South, particularly in Latin America and in South Africa and in Indonesia (...) were reporting to us that biofuels were being used as the main excuse for expanding industrial plantations which they saw as a threat to food sovereignty, to communities as well as to the environment, with the land grab issue. It coincided with policy discussions in the EU 2020 package [...] It's that coincidence that motivated us to advocate on the campaign (interview 7).

Several NGOs developed specific campaigns linking both issues. Development NGOs started to include biofuel concerns and ENGOs included FS ones. For instance, in September 2012, Oxfam International launched a joint FS/biofuels campaign targeting more precisely the EU and entitled 'The Hunger Grains. The fight is on. Time to scrap EU biofuels mandates'. ENGOs progressively included social requirements in their positions. WWF started noting that the directive was not satisfactory with regard to social issues like FS: 'RED does not include mandatory requirements on maintaining and improving soil, water and air quality or consider social issues [...], and *food security*' (WWF 2013, our emphasis).⁶

These new collaborations helped NSAs to sustain campaigns that they would otherwise not have been able to sustain, enabling them to keep on putting the issue onto the European agenda. In their fight against the inclusion of biofuels in any European renewable energy targets, they also found new potential allies: food companies (e.g. Unilever, Nestlé) were supporting the same political agenda.

Coordination mostly benefited actors who were in favour of proving that biofuels were posing a threat to FS. By contrast, lobbies advocating a positive relationship between biofuels and FS continued to lobby mostly on an individual basis. These were lobbies representing biofuel companies (e.g. BusinessEurope, Novozyme), oil companies (e.g. Shell, Total, FuelsEurope) and European and non-European farmers.

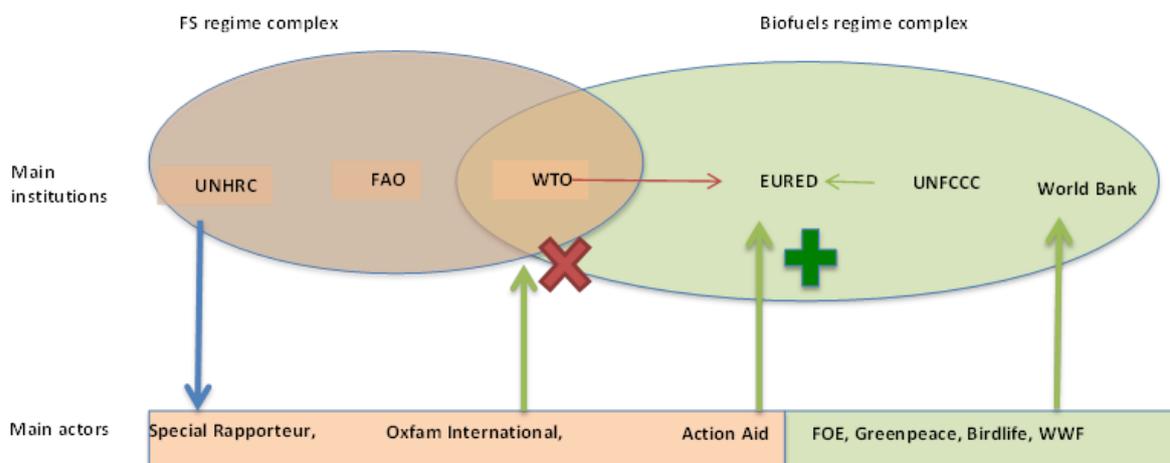
Rapidly, biofuels vs FS NSAs also found support in the person of the Special Rapporteur to the UN (interviews 1, 3 and 7). He indeed regularly navigated through the different institutions of the FS and biofuels regime complexes, expressing concerns regarding the 2009 RED. According to him, the EU

did not have enough arable lands to produce the amount of agricultural commodities to achieve its goals and therefore would need to import agricultural commodities from developing countries, depriving these countries of precious spaces to cultivate food (De Schutter 2013). The Special Rapporteur used the biofuel discussions to remind European institutions of their duties concerning FS issues, making a link between different European institutions that did not always communicate well, such as DG Energy and DG Development. As explained by one observer of several Parliamentary debates:

he was also very active in the EU, visiting the European Parliament quite often [...] I think he was the most outspoken person. You had of course also individual scientists and NGOs but Olivier had the UN position that gave him a lot of attention (interview 2).

The actions of the Special Rapporteur had great resonance within civil society organisations (Action Aid, Oxfam, Devex). Taken altogether, in a new advocacy network, they managed to put the FS security issue back on the EU agenda for the revision of the 2009 RED directive (green cross on Graph 1b), through the biofuels backdoor: 'I think as a parliamentarian of course you have to work on FS issues. [...] I have to be honest in that in the European Parliament there has been more debate about biofuels than, per se, separately, FS [...] that in that sense is really driven by the biofuels agenda' (interview 2).

Graph 1b. The success to advance on the food security agenda in 2012 thanks to the links to biofuels



TAN against biofuels for FS and for environmental protection

Regime Complexes as New Framing Opportunities

The biofuels vs food NSAs network benefited from a second emulsifying effect that is the emergence of new hybrid frames. This time, NSAs successfully framed biofuel issues in FS terms. The FS frame itself was not new, but the link between FS and biofuels was, as NSAs' frames navigated from one issue to the other.

Within a few years of the 2008 crisis, several international organisations (the FAO, the World Bank, the WTO) produced contradictory reports on the positive or negative links between biofuels and FS.

In 2011, it was clear that international organisations were not sure whether it was pertinent to link the two issues and to what extent biofuel production impacted FS (G20 2011). Yet, they at least validated two aspects of the biofuels vs FS issue: (i) from an initially local issue, it became transnational, with biofuel policies in one country having resonance on climate change, land use or food accessibility issues in another; (ii) it reaffirmed the fact that both issues were linked, in one way or the other.

Having said that, knowledge on this link progressed over time as a whole:

if you look at it between now versus eight years ago you would probably see an improvement in the sophistication of the methods used and the type of information [...] Efforts in data sources regarding the link between the two, in the number of studies that have been done (interview 1).

Plus in more precise elements of the biofuels regime complex:

if you contrast the 2007 and 2014 IPCC reports I think you will see an increasing sophistication on FS. And so in 2007 risks to crop production and livestock production were not very well understood at all. Then in the subsequent seven years we have seen the Matrix change on that. And also a huge extension in the understanding of all of our land use trade-offs (interview 1).

The growing number of scientific publications is key to understanding this evolution. But so is the mobilisation of the different knowledge that NSAs shared from their different experiences through their participation in both regime complexes and framed into policy advice. Just like international organisations, different NSAs produced many reports and used scientific knowledge to support their positions. While some showed that biofuels could be an opportunity for small and European farmers and as such improve FS (interview 5), others indicated that biofuels were one of the causes of food insecurity in the South (interviews 4 and 7). Some did not expect this latter argument at the negotiation table and many reports were produced to support or contradict it (interviews 1 and 5), concluding with very different results: biofuels could help battle or aggravate food insecurity.

For the biofuels vs food NSAs network, more than these reports was needed to convince decision-makers (interviews 5 and 7). As explained by one interviewee: 'I think we can say that the idea that scientific knowledge was enough to give a direction to the link is not right because technical knowledge and political interest can be played against each other' (interview 3). This is where ENGOs and development NGOs took advantage of divergences:

that was one thing that made our case easier to make with decision-makers and public opinion. A lot of people were arguing. Our concern about biofuels came first. While the other players were offloading the burden onto the others, NGOs proposed a very comprehensive view (interview 7).

As a result, 'in the end, NGOs managed to put together political pressure and scientific findings to convince the Commission to review the policy' (interview 7).

After the battle they lost in 2009 for the adoption of the RED, biofuels vs food campaigners tried 'to find whatever policy hooks they could to reduce the biofuels target' (interview 5). Initially, the main hook was indirect land use change and its consequences for climate change: 'it was clear that the main basis for the reform was about greenhouse gases and the true carbon footprints of biofuels.

That was the mechanism by which DG Climate started commissioning studies' (interview 7). Put more simply, this argument stated that biofuels were not green (interviews 3 and 4).

However, this environmental argument had not been sufficiently adequate to influence the 2009 RED. It soon became clear for the NSAs network that a more powerful argument, less technical and therefore easier to communicate to decision-makers, was to be found. FS appeared as the strong political argument they were looking for. Indeed, it seemed quite logical to limit the use of food commodities for purposes other than alimentation when people were starving. And environmental actors slowly took a backseat to let development NGOs take the lead (interviews 6 and 7), while they used the help of FS actors (e.g. ActionAid) to strengthen their argument (interviews 6 and 7).

By launching joint campaigns (interviews 4 and 7) the NSAs network aimed at convincing not just decision-makers but also public opinion, spreading the message through English newspapers that were read across Europe. Communication campaigns therefore had an impact in Brussels (interview 5). Just as for policy-makers, FS actors had a compelling argument to make: it was unconceivable to drive with food (interview 6) and public opinion quickly took their side. Even though biofuels of the second generation were meant to avoid these kinds of ethical questions, the battle for first generation biofuels was already successful (interview 5). As summarised by a former campaigner at the time:

from a point of view of political expediency, we found that FS is one of the most powerful and resonant arguments that we could make with policy makers. Partly because it is a simpler issue to talk about [...]. Partly because it is also an already existing concern that policy-makers have so that we can already link it as contributing to an ongoing issue to address (interview 7).

Twisting the initial environmental strategy into a FS one was useful to raise awareness about the FS negative impacts of biofuels. But still, because the issue was really controversial, NSAs started to realise that they needed to bring back environmental concerns to make up FS priorities. Indeed, officially, the revision was presented as driven by environmental preoccupations and mostly CO2 emissions concerns (European Commission 2015). As explained by one campaigner: 'I think that given the dispute there was around the link between biofuel policies and FS it was in the end crucial that also the link with climate change was made' (interview 2) (see also Graph 1b).

On their side, the defenders of biofuels were disappointed: 'they found the perfect suspect: biofuels. They used it as an excuse (...) They managed to put on the agenda something that should not be on this agenda because biofuels have no impact on FS' (interview 5). Biofuel producers estimate that they lost the war on a biofuels quota because they lost the communication battle (interview 5). For campaigners, the pro-biofuels lobby forgot to take feelings into account: 'they underestimated the emotional part of the debate. We really really used this emotional link' (interview 6).

Both Mechanisms are Important for Emulsion: the Limits of Non-State Strategies outside the European Context

Intuitively, networks are needed for frames to be supported, and frames are needed for networks to succeed in supporting a political agenda. The failure of FS and anti-biofuels advocates to succeed outside the EU is an illustration of the importance of both elements.

On the one hand, the Special Rapporteur replicated his interventions into other international organisations outside the EU but did not manage to foster the adoption of regulations as NSAs

networks to support his views were lacking outside the EU. For instance, the Special Rapporteur has also been active at the WTO. The WTO's policies have often been criticised for being contradictory to human rights, by concentrating on a particular, limited right, the right to property (Joseph 2013: 34-35). The Special Rapporteur denounced several times WTO rules on agricultural goods as 'bad for FS' (De Schutter 2011) and took the opportunity of the biofuel discussions to defend FS again. During his mission to the WTO in 2011, he insisted that trade should serve the well-being of all rather than blind economic goals (De Schutter 2011) and illustrated his argument by pointing out the problems related to the lack of biofuel regulation leading to unfair subsidies and tax incentives. However, the WTO never produced reports or regulations on the impact of biofuels for FS.

On the other hand, NSAs' networks developed to create biofuel certification schemes, to help comply with sustainable criteria. However, most of these networks did not mobilise the FS and anti-biofuels frames. In a 2013 report on the scope and effectiveness of the certification schemes recognised by the EU, WWF found that of the corresponding 13 schemes, only one, i.e. RSB (Roundtable of Sustainable Biomaterials EU RED), appeared satisfactory on the issue of FS (WWF 2013). Three of these schemes are however judged 'partially satisfactory', i.e. Buonsucro (Standard for Sustainable Sugarcane Production), ISCC (International Sustainability and Carbon Certification) and the NTA8080 (a multi-stakeholders scheme developed in the Netherlands). The common characteristics of these four schemes (with respect to the other nine) are that they are all global and multi-stakeholder schemes. Yet, researchers found that their implementation was not always satisfactory (Schut and Florin 2015; WWF 2013) and FS requirements are still minor.

CONCLUSION

This contribution investigated the institutional opportunities that regime complexes offer to NSAs in global governance. Its hypothesis was that regime complexes create amplifying effects that are not just additional but are emulsifying effects. The contribution looked at the FS and biofuel international regulations as illustrations of this claim.

The illustration shows that a number of international players have benefited from the emulsifying effect of the biofuels regime complex, bringing together organisations, knowledge and strategic thinking. More precisely, new TANs have been able commonly to reframe their argument on biofuels from an environmental to a FS imperative, managing to revise the RED to limit the use of biofuels. Even though they hardly influenced the final policy, the revision of the RED gave them the opportunity to bring FS back onto the international agenda. The empirical investigation seems to indicate that both components are crucial for an emulsion to happen.

The case presented is a fascinating example of how two seemingly stable regime complexes (food security and biofuels) are shaken up by the emergence of political contestation linking both regime complexes and their subject matter. It also shows how the increasing complexity of the food security regime positively *enabled* non-state actors advocating for stricter regulation of biofuels. Yet, because the results of this study are primarily illustrative, other cases should be analysed to create a more robust model of the emulsifying effect.

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ENDNOTES

¹ Food security is achieved 'when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life' (FAO 1996).

² Framing is here understood as organising 'an apparently diverse array of symbols, images and arguments, linking them through an underlying organizing idea that suggests what is at stake on the issue' (Gamson 2004: 245).

³ This description of the FS regime complex is inspired from Margulis (2013).

⁴ We refer to our interviews in an anonymous way, assigning one arbitrary number to each of them.

⁵ We are very grateful to one of the anonymous reviewers for pointing out this element to us.

⁶ Sometimes, divergences also appeared within the coalition with NGOs like WWF taking a rather pro-biofuels stance.

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ANNEX - LIST OF INTERVIEWS

The initial interviewees were chosen for their expertise on the matter and snowball sampling was then applied. To warrant triangulation, the interviewees include representatives of ENGOs, businesses or governmental agencies. The interviews were 60-90 minute discussions organised around a standardised questionnaire (available upon request).

Marc-Olivier Hermann, EU Economic Justice Policy Lead, Oxfam International, 01/10/2015.

Nour Amrani, manager of public affairs at Novozyme, 11/12/2015.

Jenny Walther Thos, spokesperson for Sustainable Biomass at WWF Germany, 03/12/2015.

Robbie Blake, campaigner Food, Agriculture and Biodiversity at FOE, 04/12/2015.

Magdalena Kropiwnicka, former representative of the EU at the World Food Programme (until 2008), former representative of ActionAid (until 2010) and Independent consultant on food and climate (since 2010), 08/12/2015.

Sonja Vermeulen, former Director of the business and sustainability group at the International Institute for Environment and Development (until the end of 2009) and Head of research for CGIAR climate change, agriculture and food security programme (since 2010), 14/12/2015.

Bas Eickhout, former representative of the Netherlands Environmental Assessment Agency (until 2009) and Member of the European Parliament, GROENLINKS (Dutch Greens) (since 2009), 05/01/2016.