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**Facultat de Ciències Polítiques i Sociologia**

**Treball de Fi de Grau**

**Títol: The evolutionary dynamics of regime complexes: the case of the regime complex for food security.**

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## 1. Introduction

The last decades have experienced an increase in the number and depth of international institutions dealing with different areas of global politics (Eilstrup-Sangiovanni & Westerwinter, 2021). This has led to the prevalence of regime complexes instead of unified regimes in many domains such as food security, refugees or climate change (Henning & Pratt, 2021).

The present study focuses on the performance of the regime complex for food security (RCFS, from now on) over time. It is framed in the scholarship on international regime complexity, a growing body of research in International Relations (Henning & Pratt, 2021), which theorizes about how contemporary international politics and global governance are shaped by the growing density and crowding in the field of international institutions and actors (Alter, 2022). An essential question under discussion in this area of study is whether regime complexes, which are featured by institutional overlap, improve or deteriorate substantive outcomes, such as international cooperation, in comparison to unified regimes (Pratt, 2020; Henning & Pratt, 2021). Nevertheless, the evolutionary dynamics in regime complexes, thus how and why they emerge and change over time, remain a largely overlooked question. Many studies covering regime complexity consider the phenomenon as static, and only a few of them have identified the evolutionary dynamics and changes of regime complexes (Yu & Xue, 2019).

In the case of the RCFS, authors such as Margulis (2013) opened a window to consider its evolutionary dynamics across time – avoiding its traditional classification as a highly fragmented and problematic complex regime (Candel, 2014) – by arguing that the 2008 global food security governance reform increased cooperation and policy coherence. For this reason, this project, following a research modality, pretends to approach this issue by addressing the following research question: *How does the regime complex for food security has evolved since its creation and until the COVID-19 pandemic and what are the implications of this evolution for the global hunger challenge?*

The main goal of this study is to make a relevant contribution to the evolutionary dynamics of the regime complexity debate through a case study which is, according to Candel (2014), a very much virgin territory: food security. Specifically, this project aims to, firstly, recognize the existence of the RCFS. Secondly, it aims to elaborate an analysis about the initial situation of the RCFS and how has it evolved until recently. For this goal, the project considers two dimensions proposed by Henning and Pratt (2021) which affect policy outcomes in international regime complexes: hierarchical relations of authority and institutional differentiation. And, thirdly, the study pretends to manifest the importance of the challenge of global hunger which is shaped by this regime complex.

The work follows a qualitative methodology through a literature review process. This method allows to use the already existing reliable documents and similar sources of information that can be valuable for the research (Oliver, 2012). Authors such as Matias Margulis, Nora McKeon or Jennifer Clapp, among others, have been key for addressing

the research question; they are experts in the global food governance and have published multiple papers regarding the central question of this analysis.

## **2. Regime complexes: the regime complex for food security**

The proliferation of international institutions over a broad range of fields has resulted in what has lately been described as regime complexes (Orsini & Godet, 2018). These were firstly identified in 2004 by Raustiala and Victor and, later, constantly redefined by other authors such as Keohane and Victor or Orsini, Morin and Young (Gómez-Mera et al., 2019).

This paper is based in the regime complex definition provided by Henning and Pratt, which is the following: “[...] a set of international institutions that operate in a common issue area and the (formal and informal) mechanisms that coordinate them” (Henning & Pratt, 2021:3). According to these authors, “institutions can be legally constituted organizations at the bilateral, plurilateral, regional, or global levels, as well as less formal arrangements” and “mechanisms of coordination include both deliberate inter-institutional collaboration and recurring patterns of behavior that emerge from repeated interaction in a dense institutional environment” (Henning & Pratt, 2021: 3-4). The authors’ framework puts the emphasis over two mechanisms: hierarchical authority relations and institutional differentiation. Over the last years, many authors have expressed that regime complexes are non-hierarchically ordered by definition. However, the new generation of scholars, as the case of Henning and Pratt, challenge this idea (Alter, 2021) by not limiting the possible means by which institutions can coordinate and by including, not only highly structured intergovernmental organizations, but also formal and informal agreements, club groups and regularized processes (Henning & Pratt, 2021).

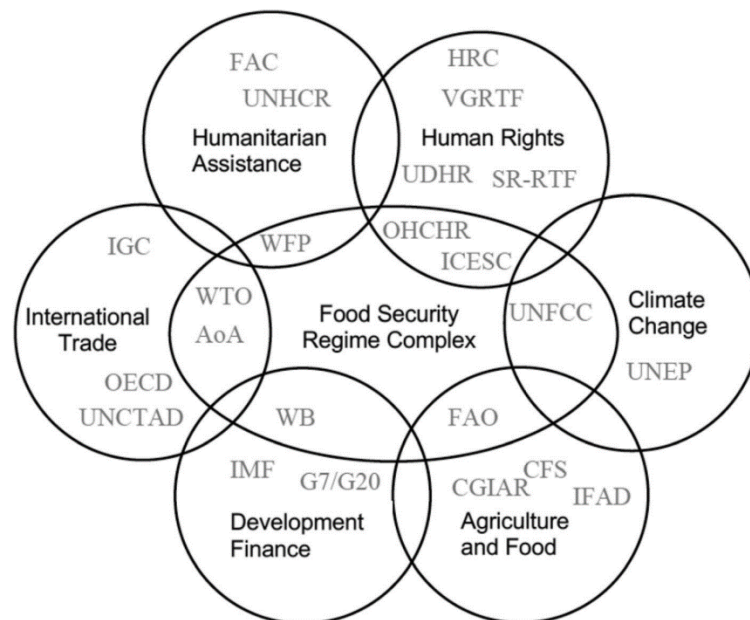
After providing a definition of what regime complexes are, the following is the identification of the RCFS. For this, it is necessary to define what food security is. Whereas the term ‘food security’ first entered the glossary in the beginning of the 1970s decade (Margulis, 2013), the definition of food security negotiated by states at the 1996 FAO World Food Summit remains the accepted basis for international and national food security policymaking (Margulis, 2017). The 1996 international consensus stated that “food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (World Food Summit, 1996).

By the end of the Second World War, an international food security and agriculture regime was created around the Rome-based UN food agencies, such as the Food and Agriculture Organization (FAO), the World Food Program (WFP) and the International Fund for Agricultural Development (IFAD), which shared a common goal to end hunger (Orsini & Godet, 2018). Nevertheless, according to Margulis (2013), a shift towards a RCFS occurred in the 1990s, when the proliferation of different new institutions ended up in overlapping power and memberships among three main international regimes: the

international food security and agriculture, international trade, and international human rights regimes. Since then, it has been recognized that, in accordance with Candel, food security “is a highly complex and multi-dimensional issue that is impacted by a broad range of drivers and food system activities, stretches across various scales, and involves multiple sectors and policy domains” (Candel, 2014:591).

While the initial institutions of the international food security and agriculture regime had mixed linkages with the UN institutions, they all shared the eradicating hunger underlying principle (Margulis, 2013). However, as Margulis (2013) has stated, in 1995, the formation of the World Trade Centre (WTO), particularly the Agreement on Agriculture (AoA), was key for the development of the RCFS. It introduced to the complex a very different normative orientation by aiming to liberalize world agriculture along market-oriented principles – the global food security governance had never been guided by this type of principles before –. Also, by promoting the human right to food under the work of, for example, the Office of the High Commissioner for Human Rights (OHCHR), the international human rights regime also acquired greater relevance in the global governance of food security (Margulis, 2013; Orsini & Godet, 2018).

The following graph (Graphic 2), elaborated by Margulis (2020), expresses the regime complex by showing how food security, at the centre of the complex, is disaggregated across a big number of formal institutions, but also formal and informal agreements, club groups and regularized processes, such as the Food Assistance Convention (FAC) or the G7/G20.



**Graphic 1:** *The regime complex for food security, Margulis, 2020.*

Certainly, the RCFS is affected by a wide-range of different governance regimes composed by a diverse set of actors, forums, discourses, and interests, which influence one each other through the creation of rules, their norm-setting tasks, and the diffusion of paradigms (McKeon, 2021). Most states are members of the FAO and WTO and, in

addition, have signed on the relevant international human rights treaties. Thus, this has resulted in the establishment of a regime complex made up of institutions and mechanisms with differing norms and rules dealing with a common issue, food security (Margulis, 2013); Graphic 3, located in the Annex, lists them, including a breakdown of their mandates, the year established and the type of institution or mechanism.

### **3. Analytical framework**

For answering the research question postulated in the introduction, the analysis follows the theoretical framework provided by Henning and Pratt. According to them, their contribution “synthesizes findings in the literature in a way that is portable across issue areas [...], provides a general classification scheme to describe patterns of interaction in different regime complexes [...], and helps to explain the outcomes of interest to scholars of international cooperation” (Henning & Pratt, 2021:8). In addition, and concerning the aim of this work, its classification brings the opportunity to address the question over whether and how regime complexes evolve from one category to another over time (Henning & Pratt, 2021).

As it has been previously mentioned, there are two dimensions that, in accordance with the authors, characterize the most relevant patterns of interactions among the regime complex involved institutions: relations of authority and differentiation (Henning & Pratt, 2021). Henning and Pratt’s goal in identifying this ordering dimensions is “to highlight important variation across regime complexes and understand their effects on outcomes of interest” (Henning & Pratt, 2021:12), thus serving as intervening variables between regime complexes and substantive outcomes (Henning & Pratt, 2021). In particular, they focus on four categories of outcomes which influence the overall feature of international cooperation: institutional collaboration, rule conflict, compliance and strategies of contestation.

In accordance with Henning and Pratt (2021), institutional collaboration refers to whether institutions collaborate to address common interests by, for example, sharing information, expertise, and decision-making procedures; rule conflict, on the other hand, means whether institutions involved in a regime complex adopt coherent rules and standards or, in contrast, they conflict with one another by practicing, for example, forum shopping; compliance alludes to whether states modify their behavior or national policies in accordance with institutional rules; and, finally, strategies of contestation refer to actors’ contestation in front of dissatisfying institutional outcomes, that can be traduced in stagnation, regime shifting or regime creation.

Before showing the direct and interactive effects of relations of authority and differentiation on the outcomes already mentioned, it is worth defining both dimensions. On the one hand, relations of authority “reflect the extent to which institutions implicitly or explicitly recognize the right of other institutions to craft definitive rules, organize common projects, or otherwise set the terms of cooperation” (Henning & Pratt, 2021: 9).

On the other hand, institutional differentiation, the second dimension, “describes the extent to which institutions in a regime complex vary in the functions they perform” (Henning & Pratt, 2021: 10).

It is expected, according to Henning and Pratt (2021), that low rule conflict and high rates of compliances occur in those regime complexes with hierarchical authority relations. Hierarchy encourages the harmonization of rules through the explicit or implicit recognition, from peripheral institutions, of the authority of a central institution. Therefore, more authoritative bodies have a higher capacity to establish rule coherence on the regime complex. By reducing rule conflict, opportunistic state forum shopping, or states seeking to escape compliance with intrusive rules, is restricted. Definitely, “hierarchy generates more institutional collaboration as highly authoritative institutions act as conveners, coordinating the operation of others” (Henning & Pratt, 2021:16). Nevertheless, in comparison to egalitarian structures, hierarchical regime complexes may also be less resilient to changes in the international arena. When bargaining becomes intractable in a central governing body because of shifts in state power or preference, stagnation may be the most possible scenario. In the long term, “states’ inability to forum shop means that dissatisfied parties are more likely to engage in competitive regime creation, challenging the existing hierarchy” (Henning & Pratt, 2021:16).

Regarding the degree of differentiation, when there is undifferentiation among institutions involved in a regime complex – so, when they are functionally substitutable –, as stated by Henning and Pratt (2021), greater rule conflict is expected, as well as more forum shopping and fewer states modify their behavior to favor compliance. These institutions, that perform the same functions, are likely to go through jurisdictional conflict, increasing the possible emergence and persistence of competing rules and forum shopping practices because of the substitutable character of institutions, which enables states to feel free to select among institutions with weaker compliance standards. Undifferentiation push competition among institutions, making them quicker to respond to changes in state interests and power (Henning & Pratt, 2021).

In contrast, differentiation, by presenting separate institutions focusing on distinct areas, reduces rule conflict and forum shopping. However, it may reduce the possibility of institutional cooperation, as each institution generates specific expertise according to their function. Institutions may become less responsive to their principals because differentiated ones develop unique capacities, expertise and legitimacy (Henning & Pratt, 2021). When differentiation takes place in regime complexes, then “dissatisfied states are more likely to engage in competitive regime creation since regime shifting is less viable” (Henning & Pratt, 2021:17).

Following the previous considerations, the next table, elaborated by Henning and Pratt themselves, presents a four ideal-type combination of the direct and interactive effects of hierarchy and differentiation on institutional collaboration, rule conflict, compliance and strategies of contestation. It is worth mentioning that the authors are aware that, in practice, these ordering dimensions are represented on a continuum rather than dichotomously, but this classification is needed to visibly distinguish expected outcomes



from hierarchy and differentiation and thus be able to address the question as to whether and how complexes might evolve from one category to another over time (Henning & Pratt, 2021).

		Authority relations	
		Hierarchical	Non-hierarchical
Institutional differentiation	Differentiated	Low rule conflict and forum shopping; intermediate collaboration; strong compliance; dissatisfaction leads to stagnation	Intermediate rule conflict and forum shopping; low collaboration; intermediate compliance; dissatisfaction leads to regime creation
	Undifferentiated	Intermediate rule conflict and forum shopping; high collaboration; intermediate compliance; dissatisfaction leads to regime shifting	High rule conflict and forum shopping; occasional collaboration; weak compliance; dissatisfaction leads to regime shifting or creation

**Graphic 2:** *Expected outcomes of hierarchy and differentiation*, Henning & Pratt, 2021.

The authors propose a step list to consider a regime complex and evaluate the effects of their dimensions on final outcomes by applying their framework. First of all, they propose to “locate (the regime complex) in the space defined by relations of authority and differentiation” (Henning & Pratt, 2021:19), thus in the four-ideal type combined table. Secondly, they propose to analyze the “particular measures by which this dimensions can be operationalized” (Henning & Pratt, 2021:19) and, finally, discuss the outcomes of each complex. In the case of the RCFS, the last step will consider each period of the regime complex that here concerns, providing not a comparative analysis between regime complexes, but within the same regime complex, as to assess its evolution over time and, this way, can respond the research question.

#### **4. The evolutionary dynamics of the regime complex for food security**

The following lines analyze the evolutionary dynamics of the RCFS since the 1990s by following the Henning and Pratt’s analytical framework. First of all, regarding the degree of hierarchy, since 1995, four global bodies shared authority for food aid – a crucial element of food security –: the FAC, the FAO Consultative Subcommittee on Surplus

Disposal (CSSD), the WTO AoA, and the UN WFP (Margulis, 2011). However, the creation of the WTO in 1995 produced a reduction of the soft policy space of the UN system (McKeon, 2011), as the WTO AoA, together with the FAC, was an international treaty (López-Almansa, 2008), thus legally binding, which was not the case of the WFP or the CSSD.

The legally binding position of the AoA meant the adoption, by the WTO institution, of a significant regulatory authority in the RCFS, whereas the moral authority, based on the human right to food and food security principles, rested in the UN institutions (D. Schanbacher, 2010). This division was traduced in different perceptions of hierarchy among the international actors involved in the complex (Margulis, 2013). Therefore, there was no authoritative international institution with a single mandate to address food security concerns across different sectors and levels during the following years after 1995, but there were different types of relations of authority: moral and regulatory authority.

In relation to the degree of differentiation during the years after the creation of the WTO, Margulis (2011) argued that, from a theoretical point of view, each institution in charge of food aid had a distinct function. Nevertheless, in practice, the WTO – holding the regulatory authority – rapidly became a highly contested institution on issues related to food security (Margulis, 2018) due to the North-South disagreement over the extent to which the AoA should accommodate food security (Margulis, 2013); this issue was addressed in the so-called WTO Doha Round, which started in 2001 (WTO, 2022a).

FAC parties were pending on the results of the Doha Round to renegotiate the new FAC, as the later expired in 2003, aiming to avoid the duplication of functions. In that context, the WFP expressed its concern regarding the WTO rules on food aid and the CSSD stated that the WTO was threatening to duplicate its functions (Margulis, 2011). During the same period, most of the UN global food governance organizations, such as FAO and the IFAD, or the CGIAR, were subject to evaluations (Von Braun & Birner, 2017). In November 2004, for example, FAO's member countries called for an evaluation of the organization as to avoid the duplication of functions (Gustafson & Markie, 2009) within the UN network.

While it is clear that the WTO had the power to provide the binding regulations over food security, and that the Rome-based food agencies dealt with the normative consensus and the human right to food, the general institutional desire of internal evaluations or reforms due to the perception of providing similar value would explain, following the Henning and Pratt theoretical framework, the level of undifferentiation during the years after 1995. This lack of differentiation was prolonged both due to the 2008 deadlock in the Doha Round negotiations, as a result of the inability to agree on agricultural trade (Daugbjerg, Farsund & Langhelle, 2017) and due to the distribution of power and authority among institutions conforming the complex (Henning & Pratt, 2021).

According to Henning and Pratt (2021), when the regime complex is characterized by non-hierarchy and undifferentiation – thus located in the Southeast quadrant from Graphic 2 –, then there is high rule conflict and forum shopping, occasional collaboration,

weak compliance and, when there is dissatisfaction, it leads to regime shifting or creation. The following part pretends to analyze these outcomes.

Indeed, rule and norm conflict predominated during the emergence of the RCFS. This was traduced in incoherent rules and standards, which conflicted with each other. According to López-Almansa (2008), the main source of incoherence was the contradiction between the food security and human rights regime and the international trade regime; while there was no formal rule overlapping, as each body had its own exclusive authority – which competed with each other –, a political conflict emerged among states and international institutions around that contradiction. Nevertheless, as the regulatory authority rested in the WTO framework, forum-shopping by mostly developing countries to other supra-national institutions, such as the UN Committee for World Food Security or the UN Human Rights Council, did not take place (Margulis, 2013; Margulis, 2019). This did not mean that the WTO ceased to be a highly contested institution, with many different groups of states defending their own interests and increasing the level of weak compliance (Margulis, 2019). Regarding collaboration, since there was no authoritative institution that encouraged coordination, other actions rather than collaboration took place: these had to do with some intervention strategies used by the FAO, the WFP and the OHCHR secretariats that “did not involve collaboration with the WTO secretariat to achieve a joint policy or regulatory” (Margulis, 2020; 896).

At the point of starting the Doha Round, thus the negotiations on agriculture and food security issues, the first sign of regime shifting – typical feature from the Southeast quadrant of Graphic 2 – started. However, the following Doha Round deadlock stopped every sign of change. In 2008, the global food crisis broke out; according to some authors, with each food crisis, new institutions have been launched (De Haen and MacMillan, 2010), and the following are considered the most relevant institutional developments (Margulis, 2012): the reform of the UN Committee on World Food Security (CFS), the UN High Level Task Force on the Food Security Crisis (HLTF) and the G8 Global Partnership on Agriculture, Food Security and Nutrition (GPAFS) (McKeon, 2011; Margulis, 2011; Margulis, 2012). The global food crisis questioned the institutional structure, funding and functions of the different organizations and agreements that used to promote global food security (Clapp, 2012) and caused states and international organizations to try to coordinate an international response (Golay, 2010).

The development of the HLTF pretended to facilitate a comprehensive and joined response to the challenge of achieving global food security by setting out policy directions to address the crisis (Margulis, 2012; Clapp, 2012) as, until then, overlapping mandates did not enable that. The creation of the GPAFS was seen, by many civil actors, as a desire of the G8 governments and private actors to set aside the multilateral UN network and to strength their influence on the world’s food system. However, it is widely accepted that the most significant international initiative was the effort to shift the FAO CFS from an ineffective forum to an authoritative policy forum (McKeon, 2011) in charge of coordinating a global approach to food security. The same year (2008), in addition, and in the context of the food crisis, the UN WFP also adopted a new strategic plan (Clapp, 2012).

Not only the HLTF, the GPAFS and the CFS, but, in 2012 the FAC turned to the Food Assistance Convention, representing a continued commitment to contribute to global food security (FAC, 2022). This reformulation was realized in an international context where negotiations over international mechanisms for food security were taking place (FAO, 2010), and after being waiting for years for the Doha Round talks to conclude the rules over food aid as part of the AoA (Clapp, 2012). From the Henning and Pratt perspective, that institutional development and reform was a direct response to the lack of differentiation among institutions that had characterized the RCFS until then, which did not allow a suitable response to the global food crisis.

In addition, and regarding relations of authority during the years after the 2008 food crisis, the CFS, the HLTF and the GRAFS all claimed to be playing central authority in global food security governance (Margulis, 2012). However, according to Von Braun and Birner (2017), the reform of the CFS in 2009 was the definitive step to address the problem of the lack of a truly authoritative institution with a mandate to address food security questions across sectors and levels. It is worth mentioning that other authors, such as McKeon (2015), argued that the system of the CFS seeks more the coherence and the normative enforcement rather than the hierarchical domination.

Nevertheless, in parallel, the Doha Round was being resumed and, in 2015, states finally agreed on new WTO rules on food aid in the Nairobi Package – a modification of the legally binding AoA – (WTO, 2022b). This agreement was reached highly due to the shift over the power dynamics into the WTO in favor of developing countries (Johnson, Thow & Nisbett, 2021) and, moreover, it meant a melioration of the WTO-food security relationship (Margulis, 2019). According to Margulis (2019), the WTO, in that context, became a more malleable and receptive institution to food security concerns in comparison to the former AoA. Member states seemed, even being able to negotiate food security questions in other forums, to have assumed to do it in the framework of the WTO, thus resulting in a less contested institution. Definitely, the WTO continued to sustain the regulatory authority, but not the moral one as other traditional and emerging institutions did. Thus, in the period following the 2008 global food crisis, still there was no formal mechanism capable of coordinating the action of the whole set of institutions that comprise the RCFS and, again, the period was characterized by non-hierarchical relations of authority.

It has to be mentioned that while there was not a hundred percent of differentiation among the elements of the RCFS during the post-food crisis years, as efforts to collaborate to provide coordinated responses were still alive – a common feature of undifferentiated complexes (Henning & Pratt, 2021) –, the post-2008 period can be located in the Northeast quadrant, thus characterized by mainly differentiation among institutions and non-hierarchical relations of authority. Therefore, according to Henning and Pratt (2021), there is intermediate rule conflict and forum shopping, low collaboration, intermediate compliance and, in case of dissatisfaction, it would lead to regime creation.

Since there was no hierarchical body to harmonize rules when conflicts arose between institutions, rule conflict was still persistent after the global food crisis, but not in a high degree. No formal mechanism coordinated the institutional proliferation; thus, conflict

could arise in this context. This was highly due to the claiming for central authority in the global food security governance sphere by those promoting food security and human rights and those promoting market-oriented principles. Efforts to overcome the overlapping mandates of the period between 1995-2008 seemed to be achieved with the global food governance reform after the global food crisis. Nevertheless, according to Margulis (2012), exchanges of information between the HLTF and the GRAFS occurred during those years as a consequence of some overlapping memberships. Therefore, it is worth recognizing that there is some undifferentiation among specific elements of the food security complex.

However, what that crisis brought was a push for coordination, that did not mean undifferentiation, but the start of collaboration at some point, in a non-hierarchical RCFS. This push for coordination and policy coherence is considered by Henning and Pratt as having at least non-hierarchical relations and differentiated ones. At this point, rule conflict is not high nor low, but intermediate, as well as the degree of compliance, which remained intermediate as there were states that, while understanding its relevance, still contested the WTO. This was the case, for example, of India, together with a coalition of developing countries within the WTO, the G-33 (Margulis, 2018; Margulis, 2019). In this case, dissatisfaction would lead to regime creation: the pandemic has led to a lot of dissatisfaction and the levels of global hunger have increased (McKeon, 2021). However, the overall institutional response is already to be seen.

## **5. Discussion**

After analyzing the existing literature over the global food governance, the revision shows that the 2008 global food crisis is one of the key factors responsible for pushing the RCFS to evolve and move from one quadrant to another from Graphic 2. However, other factors that have also accelerated this evolution have to do with the transformative shift in the global balance of power among states of the WTO, which made the WTO a less contested institution over the years. As a consequence, the discussion is presented distinguishing between two periods: (1) from 1995 to 2008 and (2) from 2008 to 2020, before the pandemic.

The RCFS is an example of a complex evolving from one category to another over time, according to the framework provided by Henning and Pratt (see Graphic 2). When this regime complex emerged in 1995, this was rapidly well-located in the non-hierarchical-undifferentiated category as shown in the previous section. However, in accordance with Henning and Pratt (2021), this location is only common when regime complexes emerge, but they rest there for a short period of time as a consequence of the non-desirable generated outcomes, which do not provide stability to the regime complex.

Whereas, during both periods analyzed, it is difficult to assess which type of authority prevails – regulatory or moral authority – in a hierarchical scale, the RCFS, characterized by non-hierarchical relations, during the 1995-2008 period led, firstly, to stagnation. Stagnation is common in those complexes with hierarchical relations of authority as strategies of contestation, in that context, are limited (Henning & Pratt, 2021).

Nevertheless, the literature review shows how the RCFS stagnated as a consequence of the Doha Round deadlock. That deadlock not only delayed the reformulation of the AoA, but also produced a “chilling effect” on the FAC, which was waiting for the Doha Round to adapt its responsibilities over food aid (Clapp, 2012).

Considering that both the AoA and the FAC are among the three international conventions, together with the Geneva Conventions of 1949, that influence in a binding way the global food security governance (López-Almansa, 2008), that deadlock was indirectly traduced in a regime complex stagnation. It is worth mentioning that other institutions such as the WFP or the OHCHR used their moral power not to stagnate the regime complex but to try to push for a regime shifting, which is more common in a non-hierarchical and undifferentiated scenario. Through intervention, not collaboration, both secretariat institutions tried to alter the WTO trajectory of decision-making at some point during the first period analyzed for invoking an alternative legal framework for the global food security governance (Margulis, 2020).

At this point, a question emerges regarding whether stagnation is possible in the Southeast quadrant (see Graphic 2). According to many authors, there was no authoritative international body in the RCFS during both periods analyzed, but stagnation occurred during the first period, and was prolonged until the middle of the second period analyzed, when the Doha Round was resumed. Until the 2008 global food crisis, no regime shifting occurred. Thus, the analysis concludes that this type of stagnation could be a symptom of authority relations within the RCFS, but empirically there is no authoritative body. It has to be taken into consideration that while the regime complex stagnated in the regulatory framework, the moral framework pursued strategies of contestation destined to change the regulatory scope. However, these strategies were limited by their moral authority. The question, thus, is whether the regulatory authority prevails over the moral one in a hierarchical scale.

When the global food crisis erupted in 2008, in a lack of an authoritative body and of institutional differentiation context, the complex experienced an institutional proliferation as a result of the necessity of regime shifting because of the dissatisfaction with the institutional outcomes for the global food crisis. Definitely, the crisis was key to push for the evolution of the RCFS to one of the other categories from Graphic 2. As sustained by some authors, with each food crisis, new institutions or a series of high-level multilateral summits have been launched to change the dynamics of the global food governance as to end global hunger (De Haen & MacMillan, 2010). Thus, the 2008 food crisis is key for explaining how the RCFS evolve over time towards a non-hierarchical but institutionally differentiated scenario. In addition, the increased number of food exporters from developing countries has challenged the balance of power in favor of those developing countries instead of developed ones (Johnson, Thow & Nisbett, 2021). This has been traduced, also, in a factor that helps to explain the evolutionary dynamics by making the WTO a less contested institution since 2015, after the approval of the Nairobi Package.

Efforts to increase differentiation could be seen with the global food governance reform. These are mainly related to the new FAC, the Nairobi Package from the AoA and the reform of the CFS. The HLTF and the G8/G20 Global Partnership seem to show some overlapping functions, thus undifferentiation, but this is not the case of the binding

agreements (FAC and AoA), the only conventions that can really influence the food aid according to López-Almansa (2008), as they were modified to avoid overlapping mandates. As a consequence, the analysis can identify the RCFS in the Northeast quadrant from Graphic 2 during the following years after the global food crisis. Nevertheless, the question of the existence of a hierarchical scale in this context arises again as while it is differentiation among those institutions, states persist to not practice forum shopping and still negotiate in the WTO framework. According to Henning and Pratt (2021) states may exploit that institutional differentiation via forum shopping, but it does not happen in the RCFS as the regulatory authority rested at the WTO.

The evolutionary dynamics of the regime complex are still to be reviewed because of the global pandemic. While until 2020 the WTO has been a less contested institution, according to Margulis, the pandemic has aggravated the situation. Again, a global crisis exposes the fragility of the global food system. Other concepts such as ‘food systems’ are being explored in the field of the global food governance, and different forums emerge in parallel of the traditional ones, such as the UN Food Systems Summit, to try to initiate, again, a reconfiguration of the global food governance (UN, 2022). Clearly, the COVID-19 has raised the attention over the small-scale producers, while it has made visible the fragilities of the global governance spaces for global supply chains as compared with territorial food systems (McKeon, 2021).

Definitely, regime complexes evolve over time, they are not static, as a consequence of an emerging situation. However, it is worth mentioning that the authors are aware that, in practice, these ordering dimensions are represented on a continuum rather than dichotomously (Henning & Pratt, 2021), but the previous classification is needed to visibly distinguish expected outcomes from hierarchy and differentiation and thus allowing to address the question as to how and whether complexes might evolve from one category to another from Graphic 2 over time. The question related to which authority prevails puts over the table the possibility of fitting the RCFS in the Southwest quadrant from Graphic 2, during the first period analyzed, and in the Northwest one during the second period. In addition, the questioned differentiation during the second period analyzed also puts over the table the possibility of fitting it in the Southeast quadrant. This is one of the reasons why the dichotomous classification limits the scope of analysis whereas is needed to provide a distinction between both periods and to show the evolutionary dynamics of the RCFS.

During the discussion of the previous section, the research question over showing the evolution of the RCFS postulated in the introduction of this work has been addressed, while the impacts over the global hunger are considered in the conclusion.

## **6. Conclusion**

Having a RCFS with no hierarchical institution and diverging interests difficults the reduction of the global hunger. However, whereas a big part of the literature reviewed has been dedicated to how the global food governance must address its reform towards a central authority – thus wishing to move the RCFS to the Northwest quadrant form

Graphic 2 –, authors such as McKeon questions the possibility of having a single body dictating binding rules on all aspects of food security.

In fact, while the best type of global food governance is being addressed for solving the problem of the huge global hunger, the global food governance itself – not the technical issue of producing more food (McKeon, 2011) – is still one of the main causes of food insecurity. However, food and agriculture also require governance, and this is like a dog chasing its own tail, but it is a necessary vicious cycle.

The limitations of the present work have to do with the western institutionalist sight that has adopted, leaving aside states themselves, regional coalitions, social movements and the role of corporations when influencing the evolutionary dynamics of the regime. Nevertheless, it is clear that regime complexes evolve over time, for one reason or another, and the best scenario or category can vary across the different regime complexes. At this point, the question is what other factors can contribute to making a regime complex evolve. The Henning and Pratt framework can be applied in other fields to assess the evolution within each regime complex.

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## 8. Annex

<b>Institution or mechanism / year established</b>	<b>Mandate on food security</b>	<b>Type</b>
UN Food and Agriculture Organization (FAO) / 1945	Eradicate world hunger and improve nutrition.	International Organization / Specialized Agency
World Bank / 1945	Global Food Crisis Response Program (GFRP)	International Financial Institution / Treaty-based
Geneva Conventions / 1949	Promote the right to adequate food.	International Treaty
FAO Consultative Sub-Committee on Surplus Disposal (CSSD) / 1954	Minimize the harmful impact of the shipments on commercial trade and agricultural production.	Declaration of FAO Council
UN World Food Programme (WFP) / 1963	Eradicate hunger and malnutrition; coordinate international food aid.	International Organization / Specialized Agency
Food Aid Convention (FAC) of the International Grains Council / 1967	Contribute to world food security by ensuring a minimal level of international food aid.	International Treaty
UN Committee on Food Security (CFS) / 1974	Coordinate a global approach to food security.	Inter-governmental Panel
UN World Food Council / 1974 (suspended in 1993)	Coordinate among national ministries of agriculture to help to reduce malnutrition and hunger.	-
Consultative Group on International Agricultural Research (CGIAR) / 1975	Reduce poverty and hunger, improve human health and nutrition through research.	Memoranda of Understanding
UN International Fund for Agriculture and Development (IFAD) / 1977	Provide loans directed to eradicating rural poverty and hunger.	International Financial Institution
Office of the High Commissioner for Human Rights (OHCHR) / 1993	Promote the human right to food.	Treaty-based International Organization
WTO Agreement on Agriculture (AoA) / 1994	Reform of agricultural trade, having regard for food security concerns.	International Treaty
FAO World Food Summit / 1996	Affirmed the human right to food and established international targets to reduce world hunger.	Summit
UN Millennium Development Goals / 2000	Eradicate extreme poverty and hunger.	UN General Assembly Declaration
UN Special Rapporteur on the Right to Food / 2000	Respond to violations of the right to food and promote implementation of the right to food.	Special Procedures / Declaration of the UN General Assembly
FAO Voluntary Guidelines on the Right to Food / 2003	Promote progressive realization of the right to food.	International Treaty
UN High-Level Task Force on the Global Food Security Crisis / 2008	To promote a comprehensive and unified response to the challenge of achieving global food security.	Informal network of formal international organizations

G8 Global Partnership on Agriculture, Food Security and Nutrition (GPAFS) / 2008	To increase the efficiency of the fight against hunger at both local and global levels.	Informal International Organization
Reform of the UN Committee for World Food Security / 2009	Nutrition; Agricultural Production; Human Right to Food; Agriculture and Development; Agriculture and Climate Change	Formal transnational deliberative body
UN 2030 Agenda for Sustainable Development / 2015	Sustainable Development Goal 2: Zero hunger.	UN General Assembly Resolution
UN Food Systems Summit (FSS) / 2021	Set the stage for global food systems transformation to achieve the Sustainable Development Goals by 2030.	Summit

**Graphic 3:** *Institutions and mechanisms in the regime complex for food security*, Margulis, 2011; Margulis, 2012.