

Rethinking Oran Young's model for studying the effectiveness of international institutions: absorption and incorporation, and vulnerability as new variables

Repensando o modelo de estudo da efetividade das instituições internacionais de Oran Young: absorção, incorporação e vulnerabilidade como novas variáveis

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doi:10.18472/SustDeb.v15n3.2024.55623

Received: 24/09/2024
Accepted: 27/11/2024

ARTICLE-VARIA

ABSTRACT

This article proposes a theoretical reflection on the effectiveness of international institutions, expanding Oran R. Young's classic model and incorporating two new variables: "Absorption and Incorporation" and "Vulnerability". Starting from a visit to the contributions of authors such as Duffield, Keohane and Nye on the subject, the work explores how the capacity of States to internalise institutional norms and rules, as well as their vulnerability to global problems, have a direct impact on the effectiveness of these institutions. Without claiming to be an immediate empirical analysis, the article offers a theoretical contribution to the field of International Relations, expanding Young's model and suggesting that future research apply these new variables in case studies. In doing so, it aims to advance the understanding of the mechanisms through which international institutions influence the behaviour of States and generate tangible results in global governance.

Keywords: International Institutions. Effectiveness. Governance. Absorption and Incorporation. Vulnerability.

RESUMO

Este artigo propõe uma reflexão teórica sobre a efetividade das instituições internacionais, expandindo o modelo clássico de Oran R. Young e incorporando duas novas variáveis: "Absorção e Incorporação" e "Vulnerabilidade". Partindo da visita às contribuições de autores, como Duffield, Keohane e Nye, a respeito da questão, o trabalho explora a forma e a capacidade dos Estados para interiorizarem as normas e regras institucionais, bem como a sua vulnerabilidade aos problemas globais que têm impacto direto na efetividade dessas instituições. Sem pretender fazer uma análise empírica imediata, o artigo oferece uma contribuição teórica para o campo das Relações Internacionais, expandindo o modelo de Young e sugerindo que investigações futuras apliquem essas novas variáveis em estudos de caso. Ao fazê-lo, pretende-se avançar na compreensão dos mecanismos através dos quais as instituições internacionais influenciam o comportamento dos Estados e geram resultados tangíveis da governança global.

Palavras-chave: Instituições internacionais. Efetividade. Governança. Absorção e Incorporação. Vulnerabilidade.

1 INTRODUCTION

In an increasingly interconnected and human-altered world, a series of problems have become part of everyday life: climate change, trade disputes, the search for sustainable development, natural resource management, the use of non-renewable natural resources, and predatory fishing, among others. These problems can go beyond the territorial limits of countries or even affect very restricted geographical regions, depending on the problem.

These adversities have led States to organise themselves through coordination and/or international cooperation arrangements to mitigate or solve these problems and others that have arisen with the increase in interdependence between countries. This has given rise to the demand for governance arrangements on certain issues, such as climate change, international trade, and disasters, among others. In the words of Oran R. Young (2018),

to meet these needs, States have negotiated hundreds of multilateral environmental agreements, creating regimes to deal with issues that range from curbing pollution to managing harvests of renewable resources and regulating the extraction of non-renewable resources (Young, 2018, p. 461).

The creation of international institutions precedes governance on a given issue; that is, governance is a consequence of the existence of institutions since they influence the behaviour of international actors (Young, 1994). In other words, the creation and operation of international institutions lead to the creation of international governance (Sanches, 2018; Young, 1994). This paper does not focus on research into the governance structures in force at the international level. Nevertheless, it is important to note that international institutions can be the sources for establishing governance on a given issue (Rosenau, 2000). This is discussed in greater depth by James N. Rosenau in his seminal book *Governance Without Government* (2000).

Before going any further, it is important to point out that this work calls upon a series of authors who produce knowledge about environmental regimes but deals with international institutions. This is due to the author's understanding that international regimes can be considered a type of international institution, i.e., they are similar concepts.

This paper adopts the definition of institutions created by John Duffield (2007), who does not differentiate between institutions and organisations and has a different approach to the sources of effectiveness of institutions. According to the author, institutions are “relatively stable sets of related constitutive, regulative, and procedural norms and rules that pertain to the international system, the actors in the system (including States as well as non-State entities), and their activities” (Duffield, 2007, p. 7-8). In addition, according to Young (1989, p. 32), “the existence of an institution sets up a network or pattern of behavioural relationships that lends order or predictability [interactions between international actors]”. Thus, adherence to institutions can change the behaviour of the actors.

For Duffield (2007), norms and rules are distinct concepts. Taking an impartial view, the former are intersubjective and define how something should be, given their consensual nature. There is a feeling that they should be complied with by the actors, but they have no legal or binding character and vary in terms of their strength (strong, emerging, weak or non-existent). It is related to customs (Duffield, 2007). The latter, rules, on the other hand, are formal elements that are made official, usually in written form, such as laws, treaties, and agreements, among others. These define how something is and how a certain thing should be done. They vary in degrees of formalisation (the more formalised they are, the stronger they are) and can be binding. The author also points out that these elements are not static,

since a norm can become so strong to the point of becoming a rule. The opposite can also happen with rules. Finally, an institution can have a combination of both elements or just one, as long as this element has a constitutive character (Duffield, 2007).

Given the number of international institutions, including regimes, in operation and those that have ceased to exist, a theme that has taken up part of academic production in International Relations (IR) is related to the effectiveness of these international arrangements. There is a search for an answer to the question: Do regimes matter? This question guides a major debate within the field of IR, which is related to the effectiveness of international institutions. This controversial subject still requires scientific effort to be understood and explained.

Given the discussions on the effectiveness of international institutions, this paper aims to expand Oran R. Young's model in *The Effectiveness of International Institutions: hard cases and critical variables*, by inserting two new sources of effectiveness: absorption and incorporation; and vulnerability. This paper is divided into three sections: the first one presents Oran R. Young's construct for understanding the seven sources of effectiveness of international institutions; the second deals with the two additions to the model; and the third section is dedicated to the final considerations.

Finally, it should be noted that this article adopts a predominantly theoretical approach, based on the review and reflection on Oran R. Young's model, to offer a conceptual contribution to International Relations studies, especially in the study of the effectiveness of international institutions. The analysis proposed here seeks to expand Young's original model by introducing new variables, such as "Absorption and Incorporation" and "Vulnerability", which will be detailed throughout the paper. This is not an empirical study or case study analysis, but a theoretical proposal that aims to stimulate future research that can apply these variables in practical investigations, measuring their effectiveness in different international regimes. Future work could expand this contribution with more detailed empirical analyses, applying these new variables to specific contexts.

2 ORAN R. YOUNG'S SEVEN CRITICAL VARIABLES FOR EFFECTIVENESS

Young (1992) presents seven variables that can be considered sources of the effectiveness of international institutions, based on the understanding that they influence, through their existence and absorption, the behaviour of international actors, especially States. Hence, for the author, an effective institution alters the behaviour of its members to solve or alleviate the problems that gave rise to it. In the aforementioned work, the author focuses on discussing the sources of the effectiveness of institutions by studying cases considered difficult (Young, 1992).

For each variable, the author created a corresponding proposition that varies in the category, with endogenous ones being those that concern the institution and exogenous ones being those that are related to the broader contexts in which these institutions are inserted. The author organises the seven variables based on their categorisation (whether they are internal and directly linked to institutions) and the level to which the variable is linked (to the institution itself, to the State or to some characteristic/phenomenon of the international system) (Young, 1992).

Table 1 – Individual characteristics of the study participants by baru production chain agent categories.

<i>Category</i>	<i>Level</i>	<i>Variable</i>	<i>Proposition</i>
Endogenous	Institutional	Transparency	"The effectiveness of international institutions varies directly with the ease of monitoring or verifying performance in the light of their main conduct requirements."

<i>Category</i>	<i>Level</i>	<i>Variable</i>	<i>Proposition</i>
Endogenous	Institutional	Resistance	"The effectiveness of international institutions is a function of the strength of the social option mechanisms employed."
Endogenous	Institutional	Rules of Transformation	"The effectiveness of international institutions varies directly with the rigour of the recognised rules that govern changes in their substantive norms."
Endogenous	State	Government capacity	"The effectiveness of international institutions varies directly with the capacity of member governments to implement their norms."
Endogenous	System	Distribution of Power	"The acute asymmetries in the distribution of power (in the material sense) between the participants circumscribes the effectiveness of international institutions."
Exogenous	System	Interdependence	"The effectiveness of international institutions varies directly with the level of interdependence of the participants."
Exogenous	Institutional	Intellectual Order	"International institutions cannot maintain their effectiveness for long after the erosion or collapse of their intellectual substructures."

Source: Elaborated by the author with data from Young (1992; 2000).

By systematising each variable and its respective proposition, the author seeks to make a comprehensive effort in relation to what makes an institution more or less effective. Another of the author's objectives with this work was to demonstrate that the study of the effectiveness of institutions was a promising field that required new research and new views on the subject, especially those related to the sources of effectiveness (Young, 1992).

The "Transparency" variable is related to monitoring both the implementation and compliance of its members with the behavioural prescriptions issued by the international institution. According to the author, this monitoring can have positive effects. This is justified by the fact that actors who do not agree with the norms and rules of the institutions or who try to break them may suffer some form of social coercion (Young, 1992).

"Resistance", in turn, is related to the institution's ability to resist changes in the context within which it operates or in the intellectual order that gave rise to it. This variable is related to the institution's ability to adapt to such changes. For the author, this is a complex variable, given the two elements that constitute it (Young, 1992). On the other hand, according to the same author, this is a key variable for understanding "the effectiveness of institutions, because "[...] it is the robust institutional arrangements that play an important, ongoing role as determinants of individual and collective behaviour in international society, whether or not we find the outcomes they produce appealing in normative terms" (Young, 1992, p. 180).

The "Rules of Transformation" variable is related to changing the elements that make up the institution. In other words, according to Young (1992), these should contain procedures that deal with altering its subjective provisions and should be specific in this regard, while preventing malicious members from altering it to satisfy desires that are not always beneficial to other members. Another aspect of this variable is that the members of the institution must be aware of these rules or procedures and these transformation procedures must not plaster the institution, as this could weaken it in the face of changes in context or intellectual order (Young, 1992).

The "Capacity of Governments" is directly related to the capacity of governments or their members to implement the institution's norms. The author draws attention to the fact that most countries have limited capacities, especially those related to economic power for implementation and also when

interest groups are involved, which can make implementation difficult or even unfeasible. He also mentions that States tend to prefer institutions that deal with specific issues to those that are too broad, due to the ability to monitor implementation and compliance (Young, 1992).

The “Distribution of Power”, in turn, refers to the distribution of power among the members of the institution. In other words, asymmetry in the distribution of this element can have a direct impact on the effectiveness of an institution, as members with more power may behave in a deviant way (non-compliance) or try to force other members (with less power) to implement it. In this sense, in a scenario of power symmetry, the process of forming an institution would be more difficult, but it would be more effective since its members would have similar power. On the other hand, as the author points out, in an asymmetric power scenario, the process of establishing an institution would be easier, but its effectiveness would depend on the power relationship between its members (Young, 1992).

In the “Interdependence” variable,

Interdependence arises when the actions of individual members of a social system impact (whether materially or perceptually) the welfare of other members of the system. Those who are interdependent are affected by and react in a sensitive manner to each other's behaviour; the higher the level of interdependence, the more pronounced these impacts and reactions will be. (Young, 1992, p. 188).

According to the author, this variable is subdivided into two: internal interdependence and external interdependence. The first is related to domestic issues and the second to external issues. For Young (1992), the ratio between the two spheres is what matters. In other words, when the ratio leans towards internal interdependence, the member in question is more concerned with internal affairs and, for this reason, tends to interact less with other external members. The opposite applies to external interdependence. The key, for the author, is to find a balance between the two (Young, 1992).

Finally, the last variable is “Intellectual Order”. This variable is related to the system of ideas that form the basis of institutions. Therefore, any change in these systems of ideas can lead to changes in the institution or even its total ruin. The justification for this is that institutions are social constructs made operational by humans. Therefore, they cannot exist if there is no coherent system of ideas, nor can they be effective (Young, 1992).

Taking into account the seven critical variables that are the sources of effectiveness, one can observe that Young (1992) has been careful to create a model that is balanced between the number of variables about institutions and those related to the context in which they are inserted. Despite this, only one variable, “Capacity of Governments”, deals with issues related to their members. This is an easily identifiable limitation to the model, since, for the author, institutions, through their behavioural prescriptions and existence, influence the behaviour of their members in relation to certain objectives.

This limitation can be related to two factors. The first is the context in which the study was produced. During the 1980s, a large part of International Relations studies was dominated by theoretical lines linked to institutionalism and realist currents, and the historical context was the Cold War. The predominance of studies at the time was on the “international scenario” and the creation and functioning of institutions, with little consideration given to the internal conditions of the members that could be sources of effectiveness.

The suggestion that it was necessary to go down to the domestic level of countries to understand the effectiveness of institutions came from Keohane and Nye (1987), where the actors conclude that this is imperative for the field of the effectiveness of institutions to advance in this discussion. The second factor is the evolution of studies and the maturing of the field, in addition to the maturing of institutions. It is plausible to say that studies on the effectiveness of institutions began to be recorded

in the early 1990s. Therefore, when Young (1992) proposed this model, the studies were still very recent, and he was creating the theoretical framework that would pave the way for further studies. In recent years, the field has evolved towards quantifying effectiveness, but it still hasn't overcome the barrier of having a widely accepted definition of the term, and the methodology for measuring it still varies from case to case and according to the objectives of the researchers (Young, 2011).

This model developed by the author Oran R. Young can be considered one of the pioneers in the field of effectiveness studies and his studies have, in a way, guided much of the research carried out in IR on effectiveness. It is common knowledge that studies on the effectiveness of international institutions, and later of international environmental regimes, intensified in the 1990s. Since then, much progress has been made in the field and what drives it today is the challenge to measure effectiveness, whether in quantitative or qualitative terms or a combination of the two, and also the quest to understand it.

In his book *Governing Complex Systems: Social Capital for the Anthropocene*, Young (2017) points out that the effectiveness of international governance depends on its ability to overcome collective problems, such as global externalities, path dependence and risks associated with uncertainty. To exemplify, he brings out issues such as climate change, where coordinated actions by multiple countries are necessary to reduce greenhouse gas emissions, but challenges such as a lack of global solidarity and transition costs make collaboration difficult. The work highlights the importance of adaptable governance systems, capable of responding quickly to changes in complex systems, such as socio-ecological ones. Young (2017) also advocates that institutional innovation, including approaches such as governance by goals, be integrated into traditional practices, such as the creation of rules and regulations. He suggests that governance should be resilient and agile, balancing predictability with the ability to adjust to the dynamic conditions of the global scenario.

In more recent publications, Oran Young is concerned with discussing new international governance arrangements and their importance for solving contemporary problems, such as issues linked to climate change, and cyberspace (as in Young; Yang; Guttman, 2020) and others. In *The politics of multilateral environmental agreements lessons from 20 years of INEA*, Kalfagianni and Young (2022) explore the concept of effectiveness in relation to Multilateral Environmental Agreements (MEAs) as a crucial aspect for assessing the impact and success of these initiatives. They point out that effectiveness cannot only be measured by formal compliance with agreed commitments but must include analysis of how MEAs influence behaviour, political processes and environmental outcomes.

In this logic, despite not focusing specifically on the effectiveness of international institutions or updating the model proposed in 1992, the author discusses effectiveness at multiple levels, starting with institutional design. The authors point out that successful agreements often have clear institutional structures, with specific rules and goals that are accompanied by robust monitoring and compliance mechanisms. In addition, it is essential that these arrangements consider the particularities of socio-economic and ecological systems to avoid mismatches between the institutions and the challenges they aim to address. Another point addressed is implementation, which varies significantly between countries due to differences in their administrative capacities, economic resources and political systems. The effectiveness of a MEA also depends on how the parties involved translate international obligations into viable and coherent national policies. The authors also highlight the relevance of institutional policy for effectiveness. This includes the ability to deal with complex dynamics between different regimes and the need for coordination between multiple actors – from states to non-governmental organisations and companies. This interaction between regimes can either strengthen or weaken the effectiveness of an agreement, depending on how synergies are managed (Kalfagianni; Young, 2022).

Before moving on to the next section, it should be noted that Oran Young's most recent work does not deal directly with the effectiveness of international institutions, nor does it seek to update the model proposed earlier. Despite this, it is notable, as presented in the previous paragraphs, that although the author does not update the model, he still reflects on the effectiveness of these mechanisms. Thus,

the inclusion of the variables proposed below is in line with the author's most recent reflections, to demonstrate that institutions produce concrete results and that they are not mere epiphenomena. With this in mind, the next section will include two new variables in the model proposed by Young (1992), since the aim of this work is not to develop a methodology for measuring effectiveness but rather to shed light on gaps found in previous research.

3 AN OLD MODEL AND TWO NEW SOURCES OF EFFECTIVENESS

What makes an international institution effective? What are the sources or processes that make it effective? In the search for an answer, Young (1992) listed seven sources of institutional effectiveness that were presented and discussed in the previous section. As this is a model of understanding, and given the nature of the object of study, it is practically impossible to create a model that is comprehensive and applicable to all the cases that can be studied.

Returning to Duffield's (2007) definition of institutions and considering the most current debates on the adaptation and vulnerability of countries to climate change, this topic will present the two new variables that seek to expand the proposed model of understanding. They are: absorption and incorporation, and vulnerability. These will be dealt with in this order.

3.1 ABSORPTION AND INCORPORATION

Based on the concept of institutions created by Duffield (2007) and presented by Sanches (2018), it was noted that, in general terms, there is a relationship between the degree to which norms and rules are absorbed and incorporated by States and the effectiveness of the institution. To demonstrate this relation, it is important to present the table that locates the institutional elements proposed by Duffield (2007).

S t r e n g t h	Strong	Strong norms, not formalized	Rule ratified, but does not provide for punishments or sanctions for non-compliance; very normative content	Formal rule, with punishments and sanctions for non-compliance; strong norm
	Norm	Emerging norm, not yet formalized	Has rules and normative content	Formal rule, less universal standard
	Weak or non-existent	Weak norm, without formal rules	Rule not ratified, little normative content	Formal rule, weak or non-existent standard
		Low	Rule	High
		Degree of formalization		

Figure 1 – Location of Duffield's Institutional Elements (2007).

Source: Adaptation from Duffield (2007, p.11).

In short, norms vary in terms of strength, since they deal with how something should be and have a moral value attached to them. In other words, the stronger they are, the greater the social pressure to comply with them. Rules, in a different way, vary in their degree of formalisation, i.e., the higher the degree of formalisation, the more robust it is, as it provides for punishments for those members who do not comply with its prescriptions. There is not always a moral factor attached to it (Duffield, 2007). Figure 1 shows the spectrum within which the strength of norms and degree of formalisation of rules can vary, ranging from the lowest point, where norms are weak or non-existent and there are no rules, to the highest point, where norms are strong, and rules have a high degree of formalisation and are therefore more robust.

According to Sanches (2018), there is a relationship between the absorption and incorporation of the rules and norms that make up an institution by its members and its effectiveness. In other words, a source of effectiveness is the degree to which the members of an institution absorb and incorporate the rules and norms emanating from an institution domestically. Therefore, and in line with the idea that an effective institution changes the behaviour of its members to solve a given problem (Young, 2011), by incorporating these two elements domestically, States would be changing their behaviour in relation to a given thematic area.

Therefore, following Young's (1992) model, the proposition of this source of effectiveness is: that the effectiveness of international institutions varies directly in relation to the degree to which their members absorb and incorporate norms and rules into the domestic sphere. Incorporating this variable into the model makes it possible to verify whether the behavioural prescriptions of institutions are in fact being absorbed and incorporated into the domestic order of States. It opens the way to understanding the relationship between effectiveness and domestic issues, a limitation of the previous model, as well as making it possible to check whether these prescriptions are found, for example, in laws and public policies, the maximum expression of the ability of these institutions to penetrate internally.

3.2 VULNERABILITY

According to Keohane and Nye (2012), the vulnerability variable is also linked to the State. According to the authors:

Sensitivity involves degrees of responsiveness within a policy framework - how quickly do changes in one country bring costly changes in another. [...] Vulnerability can be defined as an actor's liability to suffer costs imposed by external events even after the policies have been altered. (Keohane; Nye, 2012, p. 10-11)

For the new source of effectiveness, the vulnerability variable will be isolated. In the context of Keohane and Nye's work (2012), vulnerability is related to States' ability to adapt to changes in the international sphere in the medium and long term, as well as dealing with the possible costs that these changes may cause. Therefore, this element would be related to the Government Capacity variable of Young's old model (1992). To overcome this focus on changes at the international level, this variable is also based on other studies.

Based on studies related to climate change, disasters and the vulnerability of people and communities to the first two elements in the works of Birkmann (2007), Cains and Henshel (2019), Leal Filho *et al.* (2019), Mendes-Victor and Gonçalves (2012), Sanches (2024) and Wisner *et al.* (2004), the vulnerability variable takes a different course. Based on the study of the aforementioned works and the influence of others, it appears that a State's vulnerability to a given issue can influence the degree of effectiveness of an institution in a specific thematic area. Therefore, the proposition of this variable is: the effectiveness of an institution varies directly with the degree of vulnerability of the State in relation to the issue that gave rise to this institution.

The support for the inclusion of this new variable is based on Sanches' (2018, 2024) impression that countries more vulnerable to natural disasters tend to implement the International Strategy for Disaster Reduction (ISDR) System's guidelines to a greater extent. This system consists of two elements: the Sendai Framework, which is a set of guidelines for disaster reduction and prevention, and the second element is an office aimed at implementing and monitoring the United Nations (UN) members' implementation of this Framework for Action (Sanches, 2018, 2024). In this sense, the definition of vulnerability would be related to the conditions that make a given country susceptible to the impact of the problem that led to the creation of an international institution. In other words, the more vulnerable a country is to this problem, the greater its tendency to absorb the norms and rules of the institutions, which makes them effective, as they change the behaviour of actors through this internalisation. In this sense, considering the presentation of the variables Absorption and Incorporation, and Vulnerability, the altered model would be configured as follows:

Table 2 – Seven Critical Variables for the Effectiveness of International Institutions by Oran Young.

<i>Category</i>	<i>Level</i>	<i>Variable</i>	<i>Proposition</i>
Endogenous	Institutional	Transparency	"The effectiveness of international institutions varies directly with the ease of monitoring or verifying performance in the light of their main conduct requirements."
Endogenous	Institutional	Resistance	"The effectiveness of international institutions is a function of the strength of the social option mechanisms employed."
Endogenous	Institutional	Rules of Transformation	"The effectiveness of international institutions varies directly with the rigour of the recognised rules that govern changes in their substantive norms."
Endogenous	State	Government capacity	"The effectiveness of international institutions varies directly with the capacity of member governments to implement their norms."
Endogenous	State	Absorption and Incorporation	The effectiveness of international institutions varies directly in relation to the degree to which their members absorb and incorporate norms and rules into the domestic sphere.
Endogenous	State	Vulnerability	The effectiveness of an institution varies directly with the degree of vulnerability of the State in relation to the issue that gave rise to this institution.
Endogenous	System	Distribution of Power	"The acute asymmetries in the distribution of power (in the material sense) between the participants circumscribes the effectiveness of international institutions."
Exogenous	System	Interdependence	"The effectiveness of international institutions varies directly with the level of interdependence of the participants."
Exogenous	Institutional System	Intellectual Order	"International institutions cannot maintain their effectiveness for long after the erosion or collapse of their intellectual substructures."

Source: Elaborated by the author with data from Young (1992; 2000).

The introduction of this variable into Young's model (1992) allows for an understanding of the relationship between a State's internal vulnerability to a problem, which may be domestic and/or international, and the effectiveness of the international institution created to address it. That is, the understanding

of how a domestic factor influences the effectiveness of an institution. This variable also forms the link that Keohane and Nye (1987) mention through the need to understand the domestic issues that influence the effectiveness of an institution. “[...] vulnerability not only captures susceptibility and coping capacity [when faced with a problem], but also adaptive capacity, exposure and the interaction with perturbations and stresses [caused by climate change, disasters, among others, for example].” (Birkmann, 2007, p. 21).

The inclusion of the “Absorption and Incorporation” and “Vulnerability” variables in Oran Young's model allows for a deeper understanding of the effectiveness of international institutions. However, it is necessary to detail how these variables operate in specific scenarios to demonstrate their practical relevance. In the case of “Absorption and Incorporation”, the internalisation of norms and rules by states can be illustrated by concrete examples and identified through the study of domestic mechanisms aimed at this process, such as bills and public policies. For example, in the context of climate change, countries like Germany have successfully incorporated international standards, such as those of the Paris Agreement, into their national environmental legislation. The transformation of global goals into local policies, such as the abandonment of coal and investment in renewable energy, shows the absorption of norms that are created, discussed and disseminated at the international level. On the other hand, countries with weak legislation or a lack of political will can illustrate the difficulty of internalising these standards, as seen in some developing States with limited resources.

The “Vulnerability” variable can be explored by studying disaster reduction regimes such as the ISDR System and the Sendai Framework, as Sanches (2018, 2024) does. Highly vulnerable countries such as Bangladesh, which face significant risks from floods and cyclones, often adopt international norms more vigorously. This contrasts with less vulnerable countries, which may prioritise other political agendas. Thus, vulnerability acts as a catalyst for active engagement with international institutions, demonstrating how this variable shapes the implementation.

Finally, it is possible to consider hypothetical scenarios that can illustrate the dynamics of these variables in new contexts. For example, in a situation where an international institution regulates the application of artificial intelligence (AI), countries with high technological vulnerability, such as emerging economies, may adhere more quickly to global standards to protect their data systems and digital economies. The adoption and incorporation of these rules into domestic law would depend not only on their vulnerability but also on their ability to transform standards into legislation and public policies.

These examples and scenarios make the impact of the proposed variables more tangible, showing how they can shape State behaviour and contribute to the effectiveness of international institutions in different global contexts. The expansion of this debate, combined with future empirical analysis, reinforces the relevance of these variables in Oran Young's extended model.

FINAL CONSIDERATIONS

This study aimed primarily to expand the effectiveness sources model developed by Oran R. Young (1992). The incorporation of these two variables (Absorption and Incorporation, and Vulnerability) can make Young's model (1992) even more complete and balanced, considering that the proportion of variables per level, after the insertion, stands at 3:3:3. Another relevant point to consider is that, by expanding the model, research can be enriched, as it sheds light onto domestic elements that contribute to the effectiveness and shifts the previous focus solely centred on institutional and governmental capacities, as well as the influence of the international context.

Although the objective of this work is ambitious, it is grounded in the works of Keohane and Nye (1987), and Sanches (2018), which are related to the inclusion of variables that have domestic indicators in studies

on institutions. Therefore, this paper is a preliminary research effort that still needs to test its dynamics through case studies to verify its contribution to the understanding of the phenomenon in question.

Furthermore, it should be noted that Young's specific work has some shortcomings, such as the fact that the author does not explain or delve into the discussions on the relationship between the effectiveness of international institutions and the domestic capacities and resources that States have at their disposal to carry out implementation. For this article, and due to space limitations, it was decided not to delve into a direct critique of the model. This will be done in future work.

Finally, for future research, we recommend quantifying 'Absorption and Incorporation' through an analysis of the presence of international standards in domestic legislation and public policies, while 'Vulnerability' could be measured using economic, social and environmental indicators that reflect the State's capacity to deal with environmental crises (some of these possible indicators can be found, for example, on the World Bank, V-Dem and Fragile States Index websites).

These new variables are especially relevant in environmental regimes, where the vulnerability of States more exposed to climate change can directly influence their adherence to international norms. They can also be applied to human rights regimes, where the incorporation of norms can vary according to institutional capacity and internal pressures. To conclude, future research could employ comparative methodologies between countries to verify the correlation between State vulnerability and the effectiveness of international regimes, or detailed case studies to explore how norms are absorbed and incorporated across different domestic contexts.

ACKNOWLEDGEMENTS

This study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – Brasil (Capes) – Finance Code 002 and derives from the author's doctoral thesis.

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