Thais de Bakker Castro

The Anthropocene in International Development:
From IR theory to policy and programmatic applications

Tese de Doutorado

Thesis presented to the Programa de Pós-graduação em Relações Internacionais of PUC-Rio in partial fulfillment of the requirements for the degree of Doutora em Relações Internacionais.

Advisor: Prof. James Casas Klausen
Co-advisor: Prof. Paula Orrico Sandrin

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Acknowledgements

Abstract

Castro, Thais de Bakker; Klausen, James Casas (Advisor) and Sandrin, Paula Orrico (Co-advisor). **The Anthropocene in International Development: From IR theory to policy and programmatic applications**. Rio de Janeiro, 2023, 125p. Tese de Doutorado – Instituto de Relações Internacionais, Pontifícia Universidade Católica do Rio de Janeiro.

This research investigates how the interdisciplinary concept of the Anthropocene is being incorporated into international policy to address concerns with possibilities for our global future. This is done through an analysis of key documents by the UNDP, which has been using this concept over the last few years to orient a reformulation of its Human Development strategies. In a scenario of intense global crises, the Anthropocene has been gaining space in International Relations theory as a diagnosis of the unsustainability of current social, political and economic arrangements; and a theoretical start point for reconstruction efforts. Through discussions around the Anthropocene, multiple points are being advanced by IR scholars: from the idea that there needs to be a shift in cosmological visions, to the idea that natural entities such as forests should be determined as actors in international decision-making arenas. This thesis aims to complement that literature by bringing into the discussion the programmatic and policy shifts already being pointed to by a relevant international actor. With that, I intend to collaborate to make this theoretical discussion more robust, and hopefully also point to possible directions that international policy could follow in the incorporation of "Anthropocenic" concerns with the sustainability of life in the planet.

Keywords

Resumo

Castro, Thais de Bakker; Klausen, James Casas (orientador) e Sandrin, Paula Orrico (co-orientadora): **O Antropoceno no Desenvolvimento Internacional: Da teoria de RI à política e aplicações programáticas.** Rio de Janeiro, 2023, 125p. Tese de Doutorado – Instituto de Relações Internacionais, Pontifícia Universidade Católica do Rio de Janeiro.

Esta pesquisa investiga como o conceito interdisciplinar do Antropoceno está sendo incorporado à política internacional para abordar preocupações com possibilidades para o nosso futuro global. Isso é feito por meio da análise de documentos-chave do PNUD, que vem utilizando esse conceito ao longo dos últimos anos para orientar a reformulação de suas estratégias de Desenvolvimento Humano. Em um cenário de intensas crises globais, o Antropoceno vem ganhando espaço na teoria das Relações Internacionais como diagnóstico da insustentabilidade dos atuais arranjos sociais, políticos e econômicos; e um ponto de partida teórico para os esforços de reconstrução. Por meio de discussões sobre o Antropoceno, vários pontos estão sendo avançados por estudiosos de RI: desde a ideia de que precisa haver uma mudança nas visões cosmológicas até a ideia de que entidades naturais como florestas devem ser determinadas como atores em arenas de tomada de decisão internacional. Esta tese visa complementar essa literatura, trazendo para a discussão as mudanças programáticas e políticas já apontadas por um ator internacional relevante. Com isso, pretendo colaborar para tornar essa discussão teórica mais robusta, e espero também apontar possíveis rumos que a política internacional poderia seguir na incorporação de preocupações "antropocênicas" com a sustentabilidade da vida no planeta.

Palavras-chave

Antropoceno; Desenvolvimento Internacional; Desenvolvimento Humano; Desenvolvimento Sustentável.

Summary

List of abbreviations and acronyms

HD – Human Development

HAD – Human Development Approach

HDR – Human Development Report

HDI – Human Development Index

SDGs – Sustainable Development Goals

UNDP – United Nations Development Programme

GIZ – German Society for International Cooperation

BMUB – Federal Ministry for the Environment

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Vivemos um momento de crises múltiplas – crescentes tensões geopolíticas, a volta do risco da guerra nuclear, crise de abastecimento de alimentos e energia, erosão da biodiversidade, aumento intolerável das desigualdades.

São tempos difíceis. Mas foi nos tempos difíceis e de crise que a humanidade sempre encontrou forças para enfrentar e superar desafios. (...)

Para isso, é preciso tornar disponíveis recursos para que os países em desenvolvimento, em especial os mais pobres, possam enfrentar as consequências de um problema criado em grande medida pelos países mais ricos, mas que atinge de maneira desproporcional os mais vulneráveis.

Luís Inácio Lula da Silva, COP 27

1 Introduction

This thesis investigates the introduction of the Anthropocene concept in international policy. Growing in popularity in academic spaces over the past few decades, the word "Anthropocene" has also been making its appearance in international policy spaces over the past few years. The goal of this research is to examine how these discussions are being developed and operationalized in policies and programmatic interventions[1].

The inclusion of the Anthropocene within international policy spaces calls into question our modes of life, our ideas of progress, our borders, and our divisions between local and global: things in one place reverberate to the world as an intricate totality. The recent Covid-19 pandemic gave visibility to these tensions, enmeshing science, health, national and international politics. It showed, for example, that national borders hold little respect for phenomena like this, and that if healthcare is not accessed by everyone everywhere, we all suffer the consequences. In fact, human driven climate change has been making pandemics like this more likely (MARANI et al., 2021).

"Anthropocene" is a term coined by Paul Crutzen and Eugene Stoermer, respectively chemist and biologist, to describe a geological era marked by the inauguration of the human as a force capable of altering the planet's geological conditions (STOERMER; CRUTZEN, 2000). In other words, geology-altering phenomena were once only spontaneous and/or naturally occurring. However, in the era we inhabit, human actions alter geological conditions significantly and can directly cause natural events of small and large scale. This is a relatively new phenomenon considering the massive scale of geological time: human action itself now has the power to impact nature and the planet to the point of ending the planet's

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[1] Here I would like to clarify I am using Antonio Lassance's definition of policy and programs. A policy is "An institutionalized proposal to solve a central problem, guided by a conception" (LASSANCE, 2021, p.144). Programs, on the other hand "(…) are the microenvironments where solutions grow. They are the space for detailing if it is possible, with greater refinement, to focus on the public target, to estimate resources, to choose indicators, and to set goals" (Ibid., p.145). They are fundamentally interlinked and do not exist without each other. I also draw a distinction between "international politics" and "international policy"; I am examining policy here as one specific arena of international politics, which does not speak for politics as a whole ("politics" being a broad and contested concept I will not debate in this space).

conditions to house life either rapidly (for example, nuclear war) or slowly (through environmental depletion).

The acknowledgment that we are inhabiting an era in which human action intersects with the biological and geological conditions of the planet has a series of implications. It shows our ideas of progress and development were problematic and have consequences, leading to the conclusion that we need to change our ways to ensure the continuity of life on Earth. And it shows this is no easy task:

> To develop a world-wide accepted strategy leading to sustainability of ecosystems against human induced stresses will be one of the great future tasks of mankind, requiring intensive research efforts and wise application of the knowledge thus acquired in the noosphere, better known as knowledge or information society" (STOERMER; CRUTZEN, 2000, p.18).

To develop such strategies, is not an endeavor that biologists, geologists or other natural scientists can accomplish on their own. The Anthropocene is an era that intertwines a series of natural and social factors, which is why there has been a growing interest in the use of this term in various disciplines in the humanities. Changing the pace of the world's destruction involves work on diverse social elements like local and global politics, cultural beliefs, customs, myths, production, organized action of various shapes.

Like the Covid-19 pandemic, carbon emissions also do not respect national borders in the sense that it does not matter whether state X is carbon-friendly if there are large polluting industries in country Y. As we are increasingly experiencing, damages to the ozone layer bring global consequences. To add more complexity, X may economically benefit from Y's carbon emissions because X acquires cheap products from Y, enabling a satisfactory life quality to its population and perpetrating reckless consumption patterns.

Parallel to that, these carbon emissions are disproportionately prejudicial to Y's industry workers and local population – even if X will also feel the consequences of climate change in due time, such consequences are more immediate and graver to Y's population. Cheap production implies not only in carbon emissions, but also in unjustly paid labor and health hazards unaddressed by social protection measures, which are expensive. Industry elites are profiting, and their government is aligned with their interests. Therefore, safeguarding for workers is scarce. Child labor runs high like gender violence, and access to education is low.

All of this is contributing to environmental consequences that are reverberating to all countries, especially the most vulnerable ones.

The Anthropocene has been prompting us to face these types of complexities. And scenarios like this cannot change if multiple issues are not addressed simultaneously: there needs to be improvements in the technologies predominantly used, changes in our relationships to consumption, conscientization in relation to Human Rights, all intermediated by legislation, economic measures, political movements, and so on. Yet, none of this will be enough to counter the damage being done to the planet if this happens in only one place.

Once we agree to acknowledge we are living in the Anthropocene, what can and should change in the way things are done? It is in that sense, fearing for the future of the planet, that international political theory has been questioning which possibilities for life may lie in the future and how to overcome environmental, social and political consequences of unsustainable systems, taking into consideration that "Anthropocene problems" are global per excellence.

At the same time, the Anthropocene is not only a conceptual question, finding its place in international relations theory; it is also being incorporated into policy over the past few years, featuring in many political speeches[2] and international documents. Recently, in the context of the COVID-19 pandemic, it became the central theme in the Human Development Report of 2020. The HDR is a major publication in the international development scene, released periodically by the UNDP. This 2020 "Anthropocenic" report has as highlight a proposal for the inclusion of environmental factors into the Human Development Index, a landmark for global governance policies. The HDR and the HDI incorporate relevant measurements, ongoing discussions and exert important influence in policymaking and program design.

Considering that the Anthropocene is a scientific concept initiated in the natural sciences, then spread to the social sciences and political theory, over the past few years, the main question in this research is *how* development policies and

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[2] Mckenzie (2020) give us that Politics is the pursuit and maintenance of power with specific communities, which in the most of cases in international relations are nation states. Policy, on other hand is the strategy for solving particular problems, which in this context are transnational.

programs are incorporating and operationalizing it. Is it influencing "practice", and how? Does it hold any influence in changing the way things are done?

For this, I made use of discourse analysis in more than one version. First, from a literature survey, I established the main concepts related to the Anthropocene that were being used by the Literature of International Relations. With that, I was able to identify which keywords the concept of Anthropocene was being associated within the indicated policy and program documents. These associations underwent further Critical Discourse Analysis. This strategy objective, first assemble a mosaic that can be explored, functioning as an analytical tool for further deep dive.

Here I want to digress to explain the context of this research. I think it may be relevant to clarify that I did not start this PhD with the objective to study development. I chose the field of development because it is in that field that the Anthropocene has been gaining the increasing visibility that caught my attention. To understand how the Anthropocene is reverberating in international politics, we have to understand the development policy that is acknowledging it.

As the Anthropocene juxtaposes themes and areas, I have conceived this thesis as mosaic, rather than a deep dive. We are still walking slow steps into a widespread common recognition that we are living in the Anthropocene, i.e., that we are inserted into an era that requires collective efforts to ensure mutual survival and prosperity. Although the term is becoming ever more common in academia and such spaces, there is no global consensus to acknowledge whatever implications there are for times such as these. Academic and policy conclusions are still incipient, and some programmatic interventions interesting to this subject are new enough that there is still not enough monitoring and evaluation material to draw strong conclusions.

The role of a mosaic such as this is to open pathways to combine, recombine, and visualize things in new ways, thus opening up possibilities to move forwards differently by combining academic and theoretical efforts with the substantiation of things done in other fields. Throughout the research, a few recurring motifs in theoretical and policy materials have caught my attention: cross-sectoriality and/or interdisciplinarity; the problem of agency and collective responsibility; and the problem of production. The Anthropocene as a theoretical category can be, and has been, used as a tool to advance some debates, think about problems in slightly

different terms, and build up over existing efforts while prioritizing and addressing these areas for action.

I am describing this research and its paths under influence of Donna Haraway's work in *Situated Perspectives* and *Simians, Cyborgs and Women.* When I first read these texts years ago, what first stood out for me was the central premise that we create knowledge as embodied subjects, i.e., we rely on our cognition, produced by our organic brains, aided by our very human senses, to make sense of things and explain them. Therefore, there is no disembodied subject of knowledge – which was a revealing argument for someone who had been taught macroeconomics through Mankiw in a manual that narrates a species of disembodied, profit-oriented natural human who is unquestionable inside the book's own narrative.

Donna Haraway promotes the understanding that any knowledge comes from a subject who is situated in time and space. The fact we are created as subjects through a common language and common cultural repertoire is not negligible when building science. Reading Haraway more recently, in light of the Pandemic, what most stood out for me was not the question of subject embodiment, but the defense of science – but of a science that is better. Yes, we need science, even human sciences! This is something that became abundantly clear as the Covid-19 threat loomed over our lives constantly.

But we need to qualify science, and qualifying it means acknowledging our limitations, in the most positive sense of the word, as humans who are situated in a time and space and bound by their senses. The qualification of science might mean something as simple as creating a different way of *visualizing* things, using as resource different metaphors, different spaces to look, different combinations, repertoires and insights. Knowledge is built based on what has been done previously and built up with different experiments and narratives. The purposeful use of the word "visualize" is again a claim to our senses, in acknowledgement of our biological, human, situated existence. This existence brought about the Anthropocene era and is now being prompted to deal with its consequences. Because we necessarily rely on our senses and not some all-encompassing light of

knowledge, creating new ways to approach the same objects is a fundamental resource for the human grasping and comprehension of matters.

Taking this into consideration, I want this thesis to contribute in two manners: to substantialize Anthropocene theoretical literature in IR by providing examples and correlations with institutional interventions; and to advance in discussions on how to improve policy and programs to tackle the complex challenges posited by the Anthropocene. As Keppner et al. (2019, p.121) wrote in a report published by Germany's Federal Ministry for the Environment, Nature Conservation and Nuclear Safety:

> […] policy-makers can benefit from being aware of the existence of a variety of interpretations of the concept [of the Anthropocene] (its 'openness') and the implications these interpretations have for environmental policy-making (risks and opportunities)

This goal reflects a personal motivation to combine insights and knowledge I have accumulated through both academia and field work.

Although mindful that the Anthropocene has been mentioned in policy speeches, documents and programs, I take its inclusion as a central theme in the 2020 HDR as the starting point of my research. First, it is the largest platform it has had in policymaking. Second, since it has snowballed into other materials, something which has caught my attention and made urgent the task of contextualizing it concerning policy, and academia.

The thesis is structured as follows:

1) The first chapter introduces the Anthropocene in international relations literature, attempting to give a broad outlook on theoretical approaches around it;

2) The second chapter provides a historical context to development approaches to make sense of the appearance of the Anthropocene in the HDR, as well as how it is approached in the 2020 document;

3) The third chapter examines UNDP interventions historically to give colors and contextualize examples of interventions that are being associated with recognition of the Anthropocene. The idea is to give substance to the Anthropocene discussion (what exact type of intervention is imagined when

we defend that action must be taken in relation to the Anthropocene?), and to understand whether anything has changed in the shape of development interventions after "incorporating" the Anthropocene;

4)   The fourth chapter looks at other organizations recognizing the Anthropocene to prompt their policy and program plans, including concrete operationalizing directives, to open and examine other possibilities running parallel to the HDR platform.

5)   Conclusions.

2 International political theory and the Anthropocene

2.1 The Anthropocene emerges

The Anthropocene emerges as a topic amidst a global scenario of political, social, and economic instability so intense it shook the core of many of our beliefs and made dystopias seem like very real and near possibilities, whether related to political events, environmental degradation, or a combination of both. Concerns and generalized anxiety with the seemingly unavoidable end of the world make up the atmosphere in which the term "Anthropocene" has been created and increasingly disseminated in multiple disciplines and beyond the academic medium. Not only as a scientific definition but also a conceptual and analytical tool to rethink and reformulate political, social, and economic arrangements.

Paul Crutzen and Eugene Stoermer (2000) estimate the Anthropocene to be a period that started around the 18th century in the wake of the Industrial Revolution. It replaced the Holocene (the post-glacial period encompassing the last 10 to 12 centuries). This period marks the beginning of this newfound centrality of the human as a geological force on Earth, with the power to create large-scale environmental impacts. Moreover, according to the authors, in the absence of a large disrupting event like a natural catastrophe (meteor, volcano, epidemics etc) or a widescale war, the human will continue to figure as such geological force for a large period to come – which means there is a pressing need to think about sustainability.

The anthropologist Viveiros de Castro and the philosopher Débora Danowski highlight that as the Anthropocene refers to the transformation of humans from biological agents to geological force (i.e., to a natural force capable of altering the planet's configuration), geology starts to intersect with human morality. They go on:

> The beautiful sociocosmological stratification of modernity starts to implode in front of our eyes. It was imagined that the edifice could support itself only over its ground floor, economics, but alas, we forgot the foundations. And the panic overwhelms once it is found out that this determination was only second to last (DANOWSKI; CASTRO, 2017, p.26-27, translated by the author).

It is in that sense that the Anthropocene has become a buzzword in the humanities, growing in disciplines such as Sociology, Philosophy, or International

Relations (i.e. "global studies", to avoid the more problematic implications of the term "IR")[3] – which is our main interest in this research.

In 2013, an interdisciplinary journal called The Anthropocene Review was created, giving space to address the interconnectedness of problems and solutions that the Anthropocene evokes through various disciplinary approaches. In a paper called "Anthropocene Futures", Frans Berkhout argues that reflections from the social sciences are important for "translating insights emerging from the Anthropocene analysis into knowledge that resonates with the lived futures of real people and organisations" (BERKHOUT, 2014, p.154). The idea is that Anthropocene analysis can create an agenda to be incorporated into varied type of institutions, governments, civil society etc.

Similarly, it was stated in a political arena, having as a milestone the event "Planetary Security: Peace and Cooperation in times of Climate Change and Global Environmental challenges", promoted by the Netherland's Ministry of Foreign Affairs, in 2015. At that occasion:

> […] in the course of the 21st century, the Anthropocene is likely to change the way we understand political systems both analytically and normatively, from the village level up to the United Nations. This makes the Anthropocene one of the most demanding, and most interesting, research topics also for the field of political science, which has to develop novel, more effective and more equitable governance systems to cope with the challenges of earth system transformation (CHIN; KINGHAM, 2016, p.83).

The mere overlap of a concept created in the natural sciences to sociology or politics (shifting from scientific category to theoretical and analytical tool for human issues) is interesting in and of itself, and now the term it is also being incorporated in international policy. This is explained because in the Anthropocene, the dimensions of "material" and "cultural" become indissociable. According to Viveiros and Danowski (2017), the Anthropocene causes us to question, for example, the binary division between culture and nature that dominates modern

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[3] In this thesis, we understand the State as a flexible an on-going construct, dependent of a multiplicity of unstable factors and not as a fixed, independent entity. The use of the term "International Relations" might imply an understanding of the State as an unquestionable, ontologically independent entity, which is not my goal here. The term "International Relations" started to be used in a context in which the State was understood as primary unit of politics in and of itself. However, I opt to use this term in this research to make it easier, because it is still the most common and well-established, as I also do not intend to go into discussions on the meanings of "the International" or State constitution.

Western thought, since large-scale changes in nature are now directly derived from human cultures.

If, for example, great disrupting events of life on earth were independent of us (such as a large meteor that radically changes earth's environment), they are now direct consequences of human actions, especially modes of production. Simultaneously, changes in human culture/modes of life are also happening because of the destruction of nature, which changes temperature, water and food availability, and so on.

The question of scale, identified by Viveiros and Danowski in the dichotomy of the "local versus global" (Ibid., p.21), also gains prominence, as now, more than ever, local actions impact all on the planet: one single decision regarding waste disposal of a large factory may cause changes that reverberate largely over space and time, without regards to legal and cultural constraints such as borders.

In that sense, the primacy of State autonomy, for example, is questionable: this is a scenario in which the impacts of a single actor's actions may well be universal and definitive, surpassing their jurisdiction. Such preoccupations with the local *versus* global scales of politics, brought about by environmental change, highlight the role IR theory and practice might play in rethinking and redoing political and economic global arrangements. I find it relevant to highlight that, in my understanding, there is no such thing as a neat and well-defined niche of "IR practice" and "IR theory", or even "IR", for that matter. For analytical purposes, however, we may draw some distinctions.

I define international practice as any arena in which international regulatory decisions are made (such as the Security Council or interstate agreements in general); or in which some sort of practice is implemented through international management and/or financing with the goal to mitigate or improve conditions in relation to a situation of common, global concern (humanitarian operations, development programs). In that sense, IR is the field that incorporates the idea of a common or global set of concerns into its scope of action – as opposed, for example, to the actions of a single State, oriented to a specific population and/or region. And the Anthropocene is a major common concern we have as of the past few years.

Concerning the academic sphere, it is interesting to explore IR readings about Anthropocene and the future because, since its inception, a great part of IR has dedicated itself to "the international" or "the global" exactly to avoid the end of

the world, addressing potential large-scale drivers of it. The discipline itself emerged in the middle of a generalized anxiety generated by great world wars, the cold war, and their escalating potential of annihilation, potentialized by technological advances – which also started to popularize dystopias as a common genre of fiction. It is safe to think of international theory as a medium full of considerations on large-scale mutual survival in the face of factors such as destructive human actions, war technologies, and unbalanced power systems that lead to exploitation and environmental destruction of the necessary resources for life.

When nuclear war was perceived as the main common threat to our existence (be that in political theory, politics or popular imaginary), the State was approached as the main protagonist of IR because it was the only unit that could create or avoid such a catastrophe. But our perceptions of major threats and important actors have significantly changed since then, and over the 2010s, the Anthropocene has been increasingly discussed in IR. Through a simple search for "Anthropocene" mentions on academic journals classified as "International Relations" in issue area, on 3 key academic databases[4], we find a significant growth in interest. From 5 overall mentions in 2010, there were 59 mentions in 2021 and 41 from January to August of 2022.
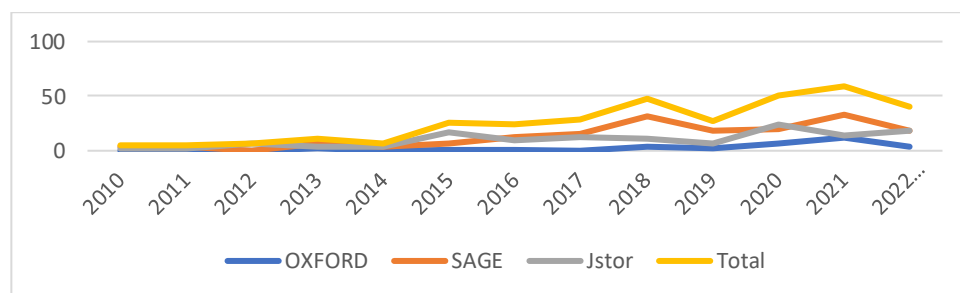

Figure 1 - Antropocene mentions in IR journals
Source: Author

The Anthropocene has been approached in IR through a series of different perspectives. I find it analytically useful to divide these perspectives into two major tendencies: one that focuses on philosophical implications of the Anthropocene and

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[4] Jstor, Oxford Journals and Sage pub.

advances indigenous cosmologies[5] as a fertile ground for healthier modes of life, concluding that the dominant, Western arrangement has failed; and another that proposes a change in regulatory international arrangements, such as documents and decision-making processes in the UN, to accommodate "Anthropocenic" concerns (many of those influenced by the interdisciplinary paradigm of Earth System Governance[6]). Those are non-exhaustive, as there are authors that partake of ideas from both these tendencies or none.

The Anthropocene has also been overlapping the limits of theoretical and academic discussions and spilling into international policy, having appeared in speeches and documents over the past decade. As previously mentioned, it has also been recently introduced into major development discussions led by the UNDP. The 2020 Human Development Report is titled *The Next Frontier: Human Development and the Anthropocene*, and there was a special edition on human security released in 2022 titled *New threats to human security in the Anthropocene: Demanding greater solidarity*.

First, it is important to explain what the Human Development Report is and contextualize its importance. The report was inaugurated in 1990 to disseminate and systematize the human development approach, which has been of great relevance in policy-building of both national and international scope, especially since it gained the platform of the report. This approach was initially minoritarian in development discussions and initiatives, but it became more widespread through this type of institutionalization.

In a historical reconstruction of the use of "human development" by Tadashi Hirai (2017), we see that the term had already been coined and mentioned since the 1970s, on sparse occasions in a few events and documents by large

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[5] The concept will be better developed in Chapter 1. For now, suffice it to say that a cosmology is a system of perceptions and beliefs that constitute a certain community's approach to life.

[6] According to the Earth System Governance Project: "The need for earth system governance research was originally recognised in 2007 by the International Human Dimensions Programme on Global Environmental Change (IHDP). The term 'earth system governance' signals a paradigmatic change from governing environmental problems at a local level, towards dealing with a more fundamental transformation of the earth system. The scale and rate of natural and human systems change is accelerating which makes improved governance more urgent than ever." (N.d.)

institutions like the World Bank, with the goal of stressing the human dimension of development. However, it gained traction – and its more famous shape and meaning – in the 1980s, establishing human wellbeing not as means for positive economic balances, but as a goal in itself. According to the current definition used in UNDP materials, human development is "about expanding the richness of human life, rather than simply the richness of the economy in which human beings live. It is an approach that is focused on people and their opportunities and choices" (UNDP, N.d.).

According to Hirai, in a series of 1985 roundtables on development which took place in Istanbul, it was already affirmed that: "The objective of development is people. The process of development may be measured in economic aggregates or technical and physical achievements, but the human dimension of development is the only dimension of intrinsic worth" (UNDP, 1983 apud Hirai, 2007, p.10). At the time, this represented an important shift, coming from a context in which main currents of development had been prioritizing economic facts and figures.

From these discussions, led by important personalities in international institutions (such as Amartya Sen), the Human Development Report and Index were created to forward the human agenda in development, coming from a perceived need to measure and strategize human development. The Human Development Index is a statistical tool that accounts for life quality, not only economic data. Created in 1990 alongside the Human Development Report and advanced by it, the Index became central in policy development and political decision-making by establishing conventional measures of human well-being for policy-building around them – and as complex and controversial such measurements of subjective factors may be, they became fundamental in planning and implementing interventions in our current political systems.

It is reasonable to say that the Human Development Index has been institutionalized and disseminated enough that it is now the most conventional measurement of development, and it is interesting to observe that it was not always that way, since at some point, development interventions were calculated and planed through purely economic factors.

Therefore, it is relevant to observe the Anthropocene migrating into such a high visibility platform as the Human Development Report and motivating a shift

in the measurements presented by the Human Development Index for two reasons. First, because the HDI can be considered a good case practice in expanding the meaning of the future oriented practice of development beyond the narrow field it was previously conceived in. Secondly, because the HDR represents a widely accepted and consequential example of the implementation of this revision into broader policy making.

The Human Development Report is also an important thermometer of the issues and approaches that, at a certain point in time, have been gaining space in the international stage through common concerns, discussions, policy and programs. We may observe shifts in dominant policy approaches and ideas through the thematic area guiding the HDR at a certain given point in time. The Anthropocene was the flagship in 2020 and 2022. The question is *how* the Anthropocene discussion, highly scientific and frequently also highly abstract, may be gaining shape and influencing policy.

2.2 Disciplinary accounts in IR

As mentioned last section, one way to think of the Anthropocene, which is especially pertinent in relation to IR, is as a tool to interpret and confront serious threats to the global future. In that sense, IR's interest in the Anthropocene is not accidental: it follows an earlier tendency in the discipline to focus on possible threats to global existence and strategies to counter them[7]. Parallel to that, the common idea that the global future is under threat was not inaugurated by Anthropocene-related thought – although the Anthropocene, i.e., the newfound power of the human as a geological force capable of altering or ending the large-scale setting of Earth – is now recurrently being pointed to as the cause to a possible end of the world, or as a motivation to create ways to avoid it.

This section is an attempt to contextualize the emergence of the Anthropocene in IR thought; I do that using the idea of "the future" as a factor that

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[7] Delf Rothe develops further reflections on the connection between the Anthropocene and the 'threat of the end times' from the standpoint of international theory (ROTHE, 2020).

connects past to present theoretical concerns in the discipline[8]. This is done through a brief, panoramic literature review of relevant landmarks in the discipline. The goal is to locate the Anthropocene in the broader scenario of the discipline and trace its possible relevance for this research.

Some of IR's most celebrated theorists, such as Hans Morgenthau and E.H. Carr, were always deeply driven by concerns with threats to the future. In 20th century IR, we saw the rise of analyses that included some degree of preoccupation with creating reliable predictions of the future, thus constituting a solid basis for decision-making aiming to avoid catastrophe. Of course, our conceptions of catastrophes are always determined by context, so if environmental catastrophe is currently the main cause for anxiety over the end of the world nowadays, a catastrophe in the collective imagination of the 1980s was a third world war or nuclear annihilation, which dictated many of the theoretical concerns of international political thought then.

As Michael Cox wrote in 2016, in relation to the anniversary of Carr's famous Twenty-Year Crisis:

> […] we are today living in deeply unsettling times where the abnormal has become the new normal and the future an unknown place. Another rather different but equally disturbing 'twenty years' crisis' could be beckoning—we may already be in it—and one can only hope that our own disturbed times is able to produce thinkers like Carr to help us understand the reasons for our current malaise; and how we might then begin to think of realistic but radical solutions to make the world a better place—a place, where to quote Carr, men and women can 'exercise' their 'reason' so as to 'understand' their 'environment' better, and having understood it, 'act' in order to create the conditions of a more peaceful and just world (COX, 2016, p.xx).

The most traditional narrative of the creation of the discipline of International Relations involves an infamous 'debate' between realists and 'idealists,' in which Carr's work is often situated. This debate – or, more precisely, not the debate itself, but the fact we still recount it as an important foundational mark of IR – illustrates some of the main ways our discipline has been operating with tentative images of futurity and risk.

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[8] There are other possible ways to frame the connection between IR and the Anthropocene. Olaf Corry (2017) connects classical IR theory to the Anthropocene through the themes of nature and geography, analyzing how IR theory has been approaching these elements since before the Anthropocene. His framing is located within the scope of a post-humanist endeavor. My theoretical choice in this research was another, motivated by the different goal to connect theory to broader policy debates.

Carr represents a theoretical attempt to create a well-informed, if somewhat neutral, understanding of global politics that could orient rational political decisions in such a way as to avoid collective war and destruction, also allowing policy-makers to advance their interest in better informed ways. It can be seen as an attempt to create viable possibilities for a future without mutually assured destruction through rational thought and information that could counter naturally destructive instincts and/or tendencies.

On the other hand, 'idealism,' pointed in the traditional disciplinary narrative (which may or may not correspond to actual disciplinary discussions at the time) as a counterpoint to realism, had a less neutral-like disposition of analysis and based itself on the idea that individual human drives and beliefs were relevant world-changing forces underlying interactions between individual State units, thus creating a species of network of mutual influences behind the constitution of such States. Economic interests and a drive for freedom were fundamental and very much reconcilable between actors to create mutually beneficial scenarios. The Western, liberal context of said 'idealism' envisioned a global future of "utopian" liberalism in which Nation-states co-existed harmoniously in a context of capitalist production with mutually beneficial economic interactions and universal democracy.

One major difference between these "foundational perspectives" is the ideas about what lies beneath the threats to our common future and *how* to counter these threats (Cooperation based on trust? Investment in security to dissuade an inevitable human desire to conquer?). Years later, this supposed first debate gives place to more elaborately construed "neo" currents (neoliberalism, neorealism and even some branches of constructivism) that better develop concerns with knowledge-making methods and methodologies, coming from different presuppositions, but bringing in common a "futurological" orientation, in which models are created to orient present action according to predicted future tendencies, to assure the existence of a future.

For example, in 1999, Risse, Ropp and Sikkink first released The Power of Human Rights, in which they attempted to answer how States internalize international norms differently (the book was later revised in 2013). For that, they elaborated the spiral model of human rights, which traced 5 separate phases of the

internalization of these norms: repression, denial, tactical concessions, prescriptive state and norm-consistent behavior.

Not all States would necessarily go through all five phases, and they could last different periods of time; in other words, the internalization of norms could skip one of the steps, go backwards and forwards etc., and the duration of each phase was unpredictable. Therefore, inconsistencies in the adoption of norms were explained through a few variables and the 'objective' observation of interaction between units, whereas the idea that there are five ordered phases implies a line of temporal progress, if spiral-moving. Although this line is not completely determinative – since certain units may skip parts of it –, it is put as an ordering principle of the world, systematized through a reliable scientific model to envision norm diffusion.

Enterprises like the spiral model consist in a scientific attempt to systematize political progress to concede us predictive power about the future. In this case, placing *norms* as a fairly consistent bridge connecting the present to the future: there is something happening now that will go through a few separate processes, more or less reliably depending on the variables at stake, so as to arrive at a certain stage B of things. Furthermore, there is an implied assumption of a future in which these norms will diffuse completely – this would be the observable present in 2013, date of revision of the spiral model. It is assumed that if prompted to it, actors would go through separate phases of the process of norm evolution, thus coming to adopt rule-consistent behavior at some point in time (if there was no such assumption, this predictive model would not have much purpose). The idea of creating such a scientificist social model is to delineate processes that do and will happen reliably. That is why the model slightly shifted in 2013 as the world also shifted, including more specificities in order to renew the same attempts to predetermine elements of the future.

The spiral model was conceived in a context of democratic optimism that replaced the fear of nuclear destruction after the end of the Cold War, a period that liberal scholar Samuel Huntington called the "third wave" of democratization (HUNTINGTON, 1993). Following Wilson's widespread liberal conduct, nuclear destruction, massacres, domination and oppression were commonly associated to despotic political regimes suppressing freedom of thought and action on behalf of egotistic interests of few. Democracy, on the other hand, would create the perfect

environment for the dissemination and enforcement of rights and freedoms. Therefore, the elimination of communism as a perceived enemy in global war against democracy seemed promising for many, as well as declarations of national independence that were giving place to newfound democratic regimes.

It was also in this context, in the 1990s, that the human development approach was created and that the Human Development Report was inaugurated. This climate of optimism, in which the authors of the Spiral Model came up with the idea that human rights norms would only logically grow to gain more adherence, was also perceptible in the first HDR. It read, in its foreword, that "[A]n irresistible wave of human freedom is sweeping across many lands" (UNDP, p.iii).

However, such "inauguration" of democracies was not without its problems; it was also perceptible that varied forms of oppression continued to exist in the world, and the climate crisis was just starting to gain growing attention and merit as an agenda. Parallel to that, international political theory started to enlarge its scope, including growing preoccupations with resource scarcity, climate change, extractivism and exploitation as major causes for concern with the future besides nuclear war, also coexisting with other rising and growing disciplinary preoccupations like colonialism, racism, and sexism. It is also around that time that we begin to encounter more papers and books founding so-called "non-mainstream" approaches to IR, reverting important logics so far predominant in the discipline, such as the centrality of the State as an abstract unity in detriment to political issues directly affecting human wellbeing.

The Cold War ended without bringing the nuclear dystopia scenarios abundantly imagined in 20th century speculative fiction and there may have been some people and institutions who grew optimistic, but, not a long while later, the end of the world started to appear very much possible once again. This time, it sounded more likely to be determined by environmental cataclysm, which would be brought by the predominant political-economic model of production, in case there was no radical change of paradigms. Over 30 years after its inauguration, the 2020 HDR sees the Anthropocene in the sobering light of irreversible environmental damage, which is a remarkable contrast from the affirmation about the "irresistible wave of freedom" in 1990.

Once again, such environmental catastrophe is predicted to take place on a global level, to reinforce the relevance of a discipline that intends to be global (or

"international"). Change in small scale, which does not engender structural change, seems futile in face of the difficulties we face and the complex networks of destructive capitalist production. If the dichotomy between global and local must fall in face of planetary crisis, the IR discipline is a good starting point to work on these issues.

In a context of deep crises that bring intense precarity and several types of extinctions, IR theorists try to create political and theoretical projects to assure the existence of a common future for the world based on averting or countering our most pressing problems – which relate to the Anthropocene, a time in which our modes of production and organization of life become such powerful forces that they may cause the irreversible destruction of human (and/or other types of) life, which are already being rapidly eroded as we witness genocides, widespread and growing levels of extreme poverty and inequality, intense damage to the environment etc.

In the 2010s, the Anthropocene enters as a novel way to encapsulate environmental and human concerns in the same package (of course, with wide differences in approach). There is a difference between speaking specifically about "climate change" or "the environment" as natural factors and speaking about the Anthropocene as a category and/or tool which *encompasses* the environment and climate change, but also lives and modes of living inevitably relating to those. The Anthropocene allows for a specific sense of perspective, making viable a new form of envisioning the relationship between the problems and corresponding solutions.

In the Anthropocene, human and environmental problems are viewed as interconnected, as well as their solutions – although how this interconnectedness is defined and accounted for, as well as strategic focuses, may vary widely. There are those that point to colonialist practices of separation between self and other, sourced in the destruction of other peoples and their life modes (for example, native peoples that have a historically more sustainable relationship with the environment) as the primary symptom and cause of the large scale crises we witness; there are also those that see interstate governance practices as a possible pathway to improve life quality; those that focus on our relationship with technological resources etc.

After we established where we might place the Anthropocene in IR thought and why we are speaking from within this discipline, the following sections focus on tracing common readings of the Anthropocene in IR. Of course, as previously stated, the Anthropocene is an interdisciplinary concept that benefits from a wide

range of disciplines and many of these IR theorists benefit from insights from the humanities and beyond them in order to develop their ideas about a possible global future. However, we are coming from IR because IR was the discipline purposefully created to examine the global political stage – which is our focus on this research.

Here, I conduct a literature review to see how the Anthropocene is developing in IR (seen as a disciplinary space focused on global political relations). This literature review is non-exhaustive and non-systematic, since I do not aim to create scientific conclusions about the Anthropocene in IR, but to identify and illustrate major thought currents that may create productive dialogue with policy implementation focused on "Anthropocenic" concerns – an arena that is fairly recent and still on-the-making as I write this. I made this focused on raising and substantiating the concepts usually related to the Anthropocene to make appropriate discussion associations within policy and program documents.

The primary basis for my readings is a literature review already previously conducted by Lovbrand, Mobjork and Soder in 2020. From then on, I have selected 13 other significant books and papers to deepen and qualify our reflections, all of which are situated within or around IR – either coming from a relevant IR publication, or explicitly dialoguing with the discipline. I have attempted to select objects from a wide time range since the Anthropocene started to be addressed in IR, and representatives of varied thought current of relevance here. I also attempted to focus on works with major circulation. In Figure 2 find a table with all references developed on this review.

Title	Author	Date	Publication
Anthropocene Ethics: Rethinking 'the political' after environment	Dalby, S.	2004	ISA Convention
Only human? A worldly approach to security	Mitchell, A.	2014	Security Dialogue
Earth System Governance: World Politics in the Anthropocene	Biermann, F.	2014	MIT Press
Earth Stewardship for a New Planetary Epoch	Gulbrandsen, L.	2015	International Studies Review
The Ends of the World: International Relations and the Anthropocene	Harrington, C.	2016	Millennium

Planet Politics: A Manifesto from the end of IR	Burke, A. et al.	2016	Millennium
Security in the anthropocene: Environment, ecology, escape	Fagan, M.	2016	European Journal of International Relations
Anthropocene, Capitalocene and Liberal Cosmopolitan IR: A Response to Burke et al.'s 'Planet Politics'	Chandler, D. et al.	2017	Millennium
Personhood and the Rights of Nature: The New Subjects of Contemporary Earth Politics	Youatt, R.	2017	International Political Sociology
The Anthropocene and the geo-political imagination: Re-writing Earth as political space	Lovbrand et al.	2020	Earth System Governance
Where is the Anthropocene? IR in a new geological epoch	Simangan, D.	2020	International Affairs
Pattberg? Amazon peoples?			

Figure 2 - References for literature review

Source: Author

The first sparse mentions of the Anthropocene on major databases, on searches exclusively dedicated do IR publications, are inconsistent and start at around 2003. Most of these mentions are superficial, relating the Anthropocene to climate and the environment while utilizing the term as a scientific category to designate the current geological time period. In another previous literature review conducted by Dahlia Simangan in 2020, she concluded that 2011 is when the Anthropocene concept gained traction in IR; but that most authors were Western, without determining geospatial scope, and that:

> They treat the Anthropocene as a backdrop for conventional IR issues of politics and security, to create a sense of urgency and shed new light on the complexity of those issues. At the same time, the Anthropocene also serves as a new theoretical landscape for rethinking the ontologies and epistemologies of the discipline and has led some scholars to realize that IR's theoretical foundations and the current international order are ill-equipped to address global environmental threats. This has inspired both critique and problem-solving (SIMANGAN, 2020, p.224).

After the first mentions, IR went on for a few years without substantial attention to the Anthropocene. After 2011 is when the concept really rises, gains regularity in its use, and authors start to associate it with a broader range of thematic

areas, such as violence, security, governance, more ontological reflections on the human-nature divide, and so on. It can be approach within the mark of sustainable development studies, but not only that; we can also see it in critical security studies, self-declared post-humanist thinkers etc.

In 2020, Lovbrand et al. summarized IR perspectives on the Anthropocene, identifying and delineating what they call "three Anthropocene discourses" predominant in the discipline: the *endangered world*, the *entangled world* and the *extractivist world*:

> In the discourse that we call the endangered world the entire life-support system of the planet is under threat and the role of world politics is to regain control for the sake of human wellbeing and security. Rather than directing blame, this discourse is concerned with the aggregated human effects on the Earth system and the possibility of bringing the planet back to a safe Holocene-like state. In the endangered world, integrated scientific assessments and international policy coordination are the means for responsible Earth system stewardship and governance. In order to gain control over the unfolding sustainability crisis and hereby secure the future of modern civilization, this discourse insists that the world needs strong global institutions that can balance competing national interests and facilitate coordinated policy responses. In the entangled world, by contrast, the idea that we can effectively govern the Anthropocene and hereby secure humanity against external threats is precisely the problem that needs to be overcome. In this discourse the modern spatializations of the world into nature and culture, subject and object, inside and outside are replaced by much more contingent, fragile and unpredictable networks of interrelations (LOVBRAND et al. 2020, p.cxxx).

These discourses have different readings of the problem at hand and therefore point to different conclusions as to the solutions. As we are aiming to locate and create a dialogue with policy makers, our interest in this thesis lies not so much in the discourses themselves, as read by Lovbrand et al., but in the *proposals* presented by the authors they read.

Those are i) improvements and reformulations in global governance, ii) improvements in technological apparatuses so as to counter damages, or else iii) a deep revolution in our Western, modern categories of thought (one commonly pointed as problematic is the binary that separates human and non-human), as superficial reforms would only be the mitigation of damages while keeping up an hierarchical model of life that can only lead to oppression and destruction.

For our own purposes, it is useful to divide these in two main lines: 1) those that propose *reforms* (in governance or other methods like technology), and 2) those that advance *reformulations* or revolutions in certain modes of thought. The first set of theorists seek to work within or around the institutional constraints previously

established in dominant politics, while the second propose a "shift in ontological categories" – the meaning of which is further developed in section 2.3. It is important to stress that these two proposals are not completely coherent within themselves, as there are different specificities and arguments within each one, but the directions followed are similar in the senses explained here.

The shared ground between these approaches is that they recognize there is an imperative for rebuilding certain pillars of global politics and even of IR as a discipline, even if their strategic focuses lie in different places (change in institutional structures, revolution in modes of thinking). After being faced with the proximity of an end of the world brought on by catastrophes derived from the acceleration of capitalism, theorists commonly arrive at the conclusion that there is a deep need for change – at a global level, because natural catastrophes do not respect juridical borders, thus the importance of a discipline that intends to think about the proportions of the "global" –, but how to frame certain problems and *which* change should be made is under discussion.

As Cameron Harrington writes:

> Accounting for the Anthropocene means much more than the individual or cumulative effects of environmental change. It reflects a new reality, where humans, nonhumans, things, and materials co-exist in complex relations of life and non-life. It also reflects distinct forms of failure and denial: in particular the failure of states (specifically those of us in the 'West') to adequately respond to overwhelming scientific evidence that warns us to adjust our ideas and behaviour, and prepare for a future unlike the past (HARRINGTON, 2016, p.4).

And how do "Anthropocenists" think we should respond to these apparently obvious failures of global politics? These theoretical proposals are relevant because, as the Anthropocene is being actually introduced in policy (a terrene of technical proposals and directives for action) over the last 2 years, it is interesting to observe how the directives given by international analysts may enter into dialogue – or not – with the realm of international practice seeking to address the Anthropocene explicitly.

2.3 Administrating the Anthropocene

In answering the questions posed in the previous section, some authors reflect what we are calling the "reformist" line of argumentation, suggesting certain changes in the system composed by Nation-states and international organizations, which may create more beneficial models of global governance, making viable the existence of renewed futures by creating better ways to preserve the environment and our relationship with it. Several of them refer to the creation of new institutions or international regulations. A key term here is *Earth System Governance*, which may be placed within the realm of sustainable development theoretical approaches.

The Earth System Governance idea has as its main representative Frank Biermann (BIERMANN, 2008; 2014). Although popular in IR due to its concern with international politics, it is an interdisciplinary approach that brings together knowledge from many fields. It became a general reference with an active research network project in 2009 and a journal since 2019. The term refers to a model of governance that enforces respect for what may be called planetary boundaries. The latter is a concept that also holds importance for Anthropocene studies.

"Planetary boundaries" refers to Rockström et al (2009) scientific publication, which describes damaging anthropogenic pressures on the environment, and defines planetary boundaries as a space in which humanity can act without causing irreversible harm to the planet (and, consequentially, to ourselves, and to the possibility of life on the planet). In relation to violated planetary boundaries, one much-discussed example is carbon emissions, which fall beyond the limit of what would be safe to avoid altering and damaging the environment with irreversible consequences. In the international arena, this reverberates into discussions about what governmental and policy options there would be to control or reverse this problem that impacts a variety of areas.

Biermann et al.'s definition of Earth System Governance is as follows:

> [...] the interrelated and increasingly integrated system of formal and informal rules, rule-making systems, and actor-networks at all levels of human society (from local to global) that are set up to steer societies towards preventing, mitigating, and adapting to global and local environmental change and, in particular, earth system transformation, within the normative context of sustainable development (BIERMANN et al., 2010).

One interesting feature of this approach concerning IR is the movement to redistribute and recognize multiple forms of agency beyond the national scope, diluting possibilities for action and redistributing responsibility over the environment. Although the premise is that there is an interconnectedness of issues,

the strategic focus is on the environment as the primary arena for Anthropocenic politics.

Biermann develops several analytical themes, but a proposal that stands out is the creation of new global institutions with decision-making and coordination power focused on environmental issues. The core point is to bring out the environment as an issue of the utmost importance for politics (as without addressing it, there will not be anything else to govern). Some of the institutions he proposes would be a World Environment Organization, a UN Sustainable Development Council, a new UN Trusteeship Council for Areas beyond National Jurisdiction, a UN Global Environmental Assessment Commission, and a World Environment Fund (GULBRANDSEN, 2015, p.505). These institutions would cover multiple issues in international policy and politics related to the environment: legislation, security decisions, programmatic interventions, and even financing.

According to Gulbrandsen close assessment of Biermann's main book on the subject:

> A key assumption that runs throughout this book is that global problems require global solutions. Indeed, to Biermann, it seems as if more multilateralism is the answer to most challenges of earth system governance. True, he acknowledges that some environmental problems can and should be addressed at lower levels in the governmental hierarchy or by nonstate actors, but his main message remains: the key solutions are new multilateral institutions, more coordination, and better integration. By contrast, other scholars have held that agreements among smaller groups of countries, "voluntary clubs," or regional agreements would be more effective than multilateral treaties for dealing with global environmental problems such as climate change (see, for example, Victor 2011). Biermann dismisses such agreements, or what he refers to as "minilateralism," as alternatives to multilateralism, but rarely engages in extensive analysis of their prospects and limitations. However, given that an agreement on climate mitigation between only the United States and China (covering 41% of global emissions) would be much more effective than the Kyoto Protocol, for example, such alternatives warrant closer examination (Ibid.)

Biermann's proposal is very systematic and pragmatic. It accepts that the Anthropocene creates a more intense interconnectedness of issues, even if it does not delve too much into philosophical and ontological reflections. Nevertheless, Gulbrandsen criticizes his book because there is no feasibility analysis of the proposals he presents concerning the creation of these institutions. Regardless of the complexity of his proposals, we may observe again that he focuses on the importance of the environment for politics and a systemic, global response to environmental degradation through a largely institutional framing.

Another example along the lines of reforms in governance systems, Proedrou attempts to answer the question "How can we operationalize a novel Anthropocene geopolitics-informed foreign policy?" (PROEDROU, 2020, p.9). His suggestion is creating moves that bring the Anthropocene's environmental issues as a primary concern and as a *planetary security* issue in EU foreign policy. The goal of 1.5°C is especially important and should be worked around. See below some of the suggestions he presented on his paper:

a) Fortifying environmental negotiations by bringing them into high levels of politics (presidential) and intensifying peer pressure, not only in multilateral fora, but in bilateral and minilateral environments as well;

b) Offering negotiation counterparts to complement peer pressure, such as roadmaps and cheap loans to support other states' clean transitions towards clean energy;

c) Improving diplomatic relations and conversations by recognizing other important States (such as Russia and China) as equal counterparts instead of threats;

d) On the other hand, impose sanctions on States resistant to climate adaptations (Proedrou uses the example of Saudi Arabia);

e) Imposing "border carbon adjustments" (Ibid., p.11) such as tariffs and/or tax reliefs;

f) Domestic energy transitions aimed at lowering the global demand for fossil fuels;

g) Creating alliances between private sector and governments to pressure "third world countries' governments to transform ecologically" (Ibid., p.12);

h) Establishing a new supply chain for renewable energy materials in coalition with other countries in line with the "contraction and convergence framework", developed by the Global Commons Institute to reduce global emissions while fairly distributing them on a per capita basis (Ibid., p.13).

Proedrou's work inserts itself in a broader tendency to reflect the global North's perspective in Anthropocene discussions, noted by Simangan in her

literature review as an important limitation. In this paper, he also diverges from Biermann in the more prominent role he gives to the agency of the State and multinational spaces than in international institutions aiming towards some neutrality or representation of global interests (as, for example, a UN forum). Unlike Biermann, for instance, he explicitly mentions the importance of bilateral and minilateral spaces. He also places the environment as the most prominent element in contemporary politics.

Looking to the Anthropocene from the perspective of the challenges that are reflected in governance and geopolitics due to the sheer , there are also authors like Galaz (2014); Kaya (2022); Pattberg; Widerberg (2015).

There are other proposals, such as the text Planet Politics: A Manifesto from the End of IR (2016), that attempt to depart from an ontological reflection to arrive at more pragmatic orientations. The end of IR is spelled by a demand that IR removes the "international" from itself, i.e., to remove presuppositions about states and humans as central actors of politics (although they remain implicitly as central decision-making actors throughout the manifesto). Accordingly, the manifesto appears as "a new set of onto-political and interdisciplinary commitments." (BURKE et al., 2016, p.21). Bearing many considerations on ontology (a concept better explained in the next section of this thesis), the authors develop the idea that elements are 'entangled,' co-implicated, and mutually vulnerable, that there are many worlds and, therefore, an urgent need to think about the Anthropocene as an ethical matter.

Despite of the radical deployments of ethics and ontology, they also create some fairly reformist proposals, defending that international institutions should be changed in such a way as to focus on the continuation of our common future and avert the end of the world. To follow this mission, one of the suggestions that the authors present in the manifesto is that "legal frameworks need to incorporate a mix with other species and ecologies to better protect us all" (Ibid., p.17), and that:

> […] it is also time to extend a programme of planetary governance reform to questions of membership and the creation of new standing global institutions. It is time to consider whether major ecosystems – such as the Amazon basin, the Arctic and Antarctic, and the Pacific Ocean – should be given the status of nations in the UN General Assembly and other bodies, or new organizations established with the sole purpose of preserving their ecological integrity (Ibid., p.18).

They go on to suggest:

> […] the creation of an 'Earth System Council' with the task of action and warning – much like the current UN Security Council – that would operate based on majority voting with representation of earth system scientists, major ecosystems, species groups, and states" (Ibid., p.20).

In that sense, they are quite close to Biermann's proposals. They also emphasize carbon emissions as a major issue to be politically acted upon through governance mechanisms.

Audra Mitchell, one of the authors who signs the manifesto, develops her work on similar grounds. In an article titled "*Only Human? A worldly approach to security,*" she takes issue with anthropocentrism and develops the same problems hinted at in Planet Politics, paying close attention to security governance. Drawing from ontological pluralism and the existence of many worlds, she suggests "mundicide" as a new category of threat to be incorporated by international institutions. Mundicide stands for the destruction of worlds (composed of people, non-human animals, and the nature they inhabit and/or relate to), which would go beyond usual typifications, such as the concept of genocide, and account for any indirect effects that might put a certain way of living and relating to nature in danger, and thus require prevention and punishment.

Mitchell argues that the introduction of this concept into international politics: "would have profound effects on how security is conceptualized and carried out: for instance, how 'violence' is defined and interpreted; in what circumstances intervention (military or otherwise) should be contemplated; and what 'peace', 'reconstruction' or preventive action might entail" (MITCHELL, 2014, p.9).

The Planet Politics Manifesto and Audra Mitchell's own work find some shared ground with Biermann's proposal insofar as both are focused on the international arena and its institutions, paying attention to the issue of either *agency* or *representation* beyond that of nations. In this case, ecosystems and their relationships to human communities would have their interests represented in a decision-making arena on world security. In the manifesto, there would be some kind of way to both represent and give agency in defending the interests of natural entities like forests, which would be given equal status to States.

We can note that Biermann remains more "conservative" in the sense that the new institutions he proposes appear a lot like existing ones, only tackling other issues (environmental), which would rise in order of importance. Indeed, like

Proedrou, he enlarges the meaning of agency as his idea of governance includes many non-State negotiations. Still, what is striking about the shared ground between these approaches is to note that the despite the encounter between ontology and governance facilitated by the Planet Politics Manifesto being theoretically far more radical than Biermann's choices and includes non-human actors, does not really change the coordinates of agency and representation, which still rely on the human as its speaking medium and arrive at quite similar solutions.

In that regard, we can conclude that focusing on the revision of who is the subject of governance does not really lead to any more innovative solutions by default. In fact, this section has been concerned with a particular intersection in our typology: a reformist governance-focused approach. However, since the Planet Politics Manifesto is oriented by such an ontological challenge to governance, could the radicalization of ontological presuppositions bring a more radical scenario? That question will be addressed in the upcoming section.

2.4 Overthrowing the Anthropocene

After an overview of what governance-oriented *reformist* approaches to the Anthropocene look like and what they propose, and in the case of the *Planet Politics Manifesto* attentive to their encounter with ontology, we may discuss theories that focus on ontological propositions.

Dalby was the first IR author I could find approaching the Anthropocene with deeper and wider discussions besides just mentioning the term as a scientific category relating to environmental changes, as early as 2004. Merely a few years after the concept was coined, he presented a substantial paper around the Anthropocene in the annual International Studies Association convention, in Montreal. The paper was called *Anthropocene Ethics: Rethinking 'the political' after environment* (2004).

In it, Dalby starts from the premise of the Anthropocene as a newly declared geological period to assess that this "discovery" prompts us to reformulate essential ethical categories in global politics. He states that separate categories of human and nature are no longer useful for discussions around the global future, as the

Anthropocene makes it ever more evident, we share "interconnected fates," and that the category of "the environment" has been superseded:

> It might be argued that the last half century has had many environmental concerns that require a "global" response so this is nothing new. But the not so subtle point about the concept of the Anthropocene is that it isn't any single environmental concern that matters now. It's the cumulative totality of these that are beginning to interact in all sorts of unpredictable synergies that matters. In that sense environment as a simple category of concern has also been transcended; the preservationist and romantic premises of its arguments undercut by both the scale of human activity and the growing sophistication of scientific understandings of ecology. Technical fixes can "solve" many pollution problems, but grasping the totality of material transformations is what is now the pressing priority (DALBY, 2004, p.3).

Therefore, he criticizes punctual "preservationist" actions that do not take into consideration the deep interconnectivity between issues. He attributes an important role to both consumer culture and production methods and defends that IR does not offer many helpful tools to understand these interconnected relationships, since it begins from the viewpoint of either individuals or political units, which does not consider co-implications and flows. He goes on to say that discussions on *what to do* "frequently focus on the need to change government policy, to change the rules, write new rules and enforce management standards within territorial jurisdictions" (DALBY, 2004, p.6).

According to him, these discussions are insufficient. They are merely administrative and bureaucratic, losing sight of the big picture because they need to break issues down into "manageable (literally) pieces" (DALBY, 2004, p.6). As Dalby says:

> The focus on pollutants, and toxicities is necessary but frequently fails to encompass the overall utility of the product while dealing with the narrow technical parameters of "safety". Engineering criteria more generally deny the importance of the human context in decision-making an omission that frequently has tragic consequences (Ibid.).

From Dalby's perspective, for instance, the shared ground between the Biermann and the *Planet Politics Manifesto,* which leads to similar policy prescriptions, is indicative that although there are some ontological reformulations in the second, they do not go far enough and fall short both of embracing the conceptual destabilization brought by the Anthropocene and in generating novel governance proposals.

Here is when ontology begins to play an important role in Anthropocene IR thinking and I will briefly digress to explain the most common conception of

"ontology" in International Relations. Ontology is an endlessly complicated concept in Philosophy, having widely varied interpretations depending on author and thought current. According to the Stanford encyclopedia of Philosophy, the word ontology was created around the 17th century to represent "the science of being as such" (VAN INWAGEN; SULLIVAN, 2007). In that sense, an "ontological category" is but a "category of being": what is the "substance" constituting an object? What is it made of?

In IR, this becomes a useful tool for thinking, for example, about what are Nation-states. Are they constituted by solid premises that exist independently from ourselves (for example, geographical bounds and differences that are simply there in nature, preexisting humans and their systems of signification)? Or are Nation-states inherently dependent on our views and interpretations of things to exist (since a geographical bound has no significance if not for our beliefs around it, and subsequent law systems)? It is reasonable to say that, nowadays, Nation-states are commonly recognized as abstract units that materialize themselves exactly through systems of signification that give meaning to them; however, when these processes of co-constitution are omitted, you also omit the possibility of change, not giving due credit to it.

If a Nation-state simply appears to be there independently from constitutive processes, independently from us and our desires, it also appears to be unchangeable. One could say that the early realists treated Nation-states as ontologically independent units; i.e., things that are "simply there", independently of other objects and/or processes that establish it as it is, in its place. Thus, one could also say that when authors or institutions ignore the complex processes behind Nation-state constitution and enforcement, they give strength to the impression that Nation-states are inevitably *there* in the way that they are and could not exist in any other way.

The same considerations could be extended to any other units or objects in international policy: people, the environment, nature, animals etc. What *are* they and what *could* they be? Are people inherently self-motivated animals or are they social beings that constitute themselves through interactions? And so on. These presuppositions regarding a certain object end up influencing all strategies built upon them: following the earlier example, if humans are inherently self-motivated, then it makes sense to act politically in a certain way so as to coordinate different

humans' self-interests; on the other hand, if the human is cooperative, then it makes sense to invest in building ways to facilitate cooperation.

Considerations regarding ontology in international politics have also been prompting a series of authors to adopt an *ontologically pluralist* view that defends there is no such thing as *one* single world; instead, there are many worlds coexisting, fully dependent on varied systems of signification and relationality between people and environments, i.e., different *cosmologies*. These reflections commonly refer to anthropological studies on native peoples that have supposedly unique relationships with the world around them, for instance, by understanding and treating certain natural elements like rocks as entities also detain a spirit and thus are equally important for social organization.

In this context, there would be no sense in looking for "the truth" underlying these interactions. In a discussion about indigenous cosmologies, for example, one could find the belief that a rock is endowed with a spirit silly, because there is no "scientific" evidence that a rock may have a spirit, therefore treating this particular cosmology as an "untrue fantasy." However, an "ontological pluralist" might respond by saying that, if the rock is seen, treated and experienced as a being with spirit in a given context, if it has a social and religious "status", and if it exists in a whole system of signification in which this fits and makes its own sense, then that *is* the truth of that world-system.

Truth, then, would be constituted precisely by the complex systems that treat it as such. Along the same lines, science as we know and its mission to pursue the truth of certain matters is also placed *inside* a system of signification, the modern Western one – although traditional Western knowledge regularly omits that science exists inside this system, and is not *simply there* by nature, but dependent on context. Science must be formulated in words we know and can understand, through metaphors we may grasp to conceive of complicated abstractions, and it is always an in-the-making process that is testing itself, discovering new things, improving, and reinventing itself to include new facts and processes and discard superseded ones.

These reflections become relevant in the Anthropocene as the concept of ontology serves precisely to emphasize the co-relationality between human and the world around us, especially for those who are called "post-humanists", who are emphasizing the philosophical relationality of things. In this chapter, we will read

Rafi Youatt as an illustrative example of this movement. Before doing that, however, we must continue pursuing the implications that rethinking ontology brings to that context.

Dalby emphasizes that, in order to address the Anthropocene in theory and politics, it is fundamental to include ontology. We need to understand the basis for our categories of thought and foment holistic, interconnected perspectives. "Human" and "nature" are not separate categories, but deeply co-implicated: the human is part of nature, while simultaneously impacting nature in previously unseen ways. "Science" and "culture" are now more than ever co-implicated: the "science" of "hard facts" communicates through culturally built language comprehensible to humans, and the realm of culture is also where consumption values and patterns are built and prompt irreversible, large-scale environmental changes.

There need to be tools to better visualize matters as more contextual and complex than linear interactions between units that are interpreted as whole in themselves:

> Overcoming this divide suggests post-modern subjectivities a little more sensitive to context and to the consequences of differences, places and connections. This is not necessarily a political liability, especially given that the collapse of the nature/culture dualism also implies the need to think beyond 13 simple dichotomies with all the related emotional satisfactions inherent in the invocation of virtuous parochial particularisms. It suggests the need to build sensibly for the future rather than trying to literally ground politics in protecting things that inevitably change. Working to enhance ecosystems diversity and fecundity is the key to sustaining lots of things. Above all the invocation of the term "Anthropocene ethics" suggests the need to simultaneously think about connections, the importance of flexibility and adaptability, the impossibility of complete certainties, while always keeping the inevitability of surprise in mind (DALBY, 2004, p.12-13).

This revised status of ontology is what propels a disagreement an important critique of the *Planet Politics Manifesto* by David Chandler, Erika Cudworth and Stephen Hobden, formulated on the grounds of their timid revision of ontology, which ends up reiterating an already quite usual position in world affairs. According to them, "Burke et al. reproduce an already failed and discredited liberal cosmopolitan framework through the advocacy of managerialism rather than transformation; the top-down coercive approach of international law; and use of abstract modernist political categories" (CHANDLER; CUDWORTH; HOBDEN, 2018, p.1).

They write that the authors of Planet Politics, while critical of the realist focus on Nation-states, are still stuck in a 'liberal cosmopolitan' framework and perspective of IR, using idealist and abstract terms such as 'global ethics' as the hallmarks of actual political change. The use of such abstract terms, they go on, would also be depoliticizing since it does not address the systemic causes for our problems, mainly capitalist production. Further, they declare that:

> While the term 'Anthropocene' has entered common usage, we are concerned that its use can confuse the issues rather than illuminate them. The term once again puts an emphasis on the 'anthropo', the human. And while Crutzen and Stoermer justifiably sought to draw attention to the human impact on the planet, there is a danger that this reinforces the view of the human as all-powerful and separate from the rest of nature. Furthermore, it is not the 'human', that is the cause of the impacts on the rest of nature, but a specific subset of the human, living within a particular form of social organization (CHANDLER; CUDWORTH; HOBDEN, 2018, p.12).

With that, they mean to say that it is not simply that humans exist which causes harm to the planet; but the fact that a large parcel of the planet lives by capitalist standards of production and consumption. Abstract and universalist ethical imperatives ignoring these asymmetries and systemic causes to our problems would be apolitical and work in favor of the system. There are, however, alternatives to less harmful and more harmonious lives. They write that Burke et al.'s proposal is a top-bottom, legalist/regulatory approach and that as an alternative, they would propose a bottom-up strategy. Human consciousness needs to change.

Instead of the manifesto's approach, they propose a threefold response:

> One necessary response is to acknowledge the tragedy of our times, to take on board that catastrophe is already here and that we live in times of extinction and crises that are and will be profoundly transformative. Second, is to retain and extend our practices of critical analysis and politics where we need to continue to demonstrate the responsibility of particular forms of social organisation for our currently precarious condition. There are, in fact, many possibilities whereby a liberating and emancipatory perspective can be generated from the entanglements of the Anthropocene/Capitalocene, which, following some critical decolonial, feminist, queer and posthuman approaches, enables the dethronement of Enlightenment Man, without smuggling the 'God trick' back into a human-less world, where politics has to be suborned to the planet. Third, we would rather seek inspiration in other ways of 'renaturalising' politics, ways which can be seen to offer creative possibilities and potentials (CHANDLER; CUDWORTH; HOBDEN, 2018, p.15).

Still, despite their challenges, one could reply that their proposal remains in the abstract terms of thought reformulation and "ontological revolution" as well, thus not implicating operationalization or strategizing (which, in itself, may be seen as a type of reductionism – Dalby, for instance, highlighted the problematic behind breaking down issues into "manageable pieces")[9].

Madeleine Fagan, on the other hand, fits Cudworth, Hobden and Dalby into a movement of 'ecological security' thinking, i.e., authors that recognize the limitations of thinking about 'the environment' as an ontologically unquestioned category, and approach the planet's security through the lenses of ecology as a broader scope than environment, since it includes the interconnection between environment, human, other animals etc. She understands that this movement towards ecological security has as main basis the critique of the human/nature divide as two separate ontological entities.

However, she criticizes these authors on the basis that the attempt to transcend a binary through the establishment of a new, broader category may only create another set of inside/outside. She proposes, instead, that the Anthropocene may be used as a tool to recognize limitations and conflicts and employ a 'renewed creativity':

> Rather than seeking a new — ecological — logic by which to domesticate the fractured world of the anthropocene, an embrace of its reframing of our concepts of the 'world' might be a fruitful way with which to engage it. There can be no simple erasure or transcendence of the organizing logic that has allowed us to conceive of ourselves as inhabiting an anthropocene era. Rather than attempting to escape such a logic, we might consider the anthropocene instead to offer a framing of our political landscape that offers scope for a re-immersion in analysis of it (FAGAN, 2017, p.18).

Fagan's stance demonstrates the heterogeneity between the 'ontological revolution' authors. Still, comes from a similar premise that defends the need to advance new ways of thinking was a path to tackle the complications deriving from the Anthropocene as an era.

There are other authors developing pluralist thoughts on the Anthropocene that have as the most remarkable feature the placement of native peoples as examples and/or pathways towards doing things differently. Youatt (2017) is exemplary of such a tendency[10]. He uses the Amerindian perspectivism of Viveiros

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[9] See also Harrington (2016) for a similar set of arguments.
[10] See also Inoue (2018); Querejazu Escobari; B. Tickner (2020).

de Castro (2016) to argue that there are many worlds and many different types of persons. He cites as example Amerindian peoples who have cosmologies in which the 'human' is composed of signifiers that are incompatible with Western ontology and do not fit into the same categories of thought.

A 'person' may not be understood as a single human entity coherent within itself. He cites the following passage from Viveiros de Castro, discussing Amerindian cosmology in *Cannibal Metaphisics*:

> All animals and cosmic constituents are intensively and virtually persons, because all of them can reveal themselves to be (transform into) a person. This is not a simple logical possibility but an ontological potentiality. Personhood and perspectiveness—the capacity to occupy a point of view—is a question of degree, context, and position rather than a property distinct to a specific species (VIVEIROS DE CASTRO, 2016, P.57 APUD YOUATT, 2017, p.46).

This has implication for politics. Western politics, that which is reflected in international politics, is based in Western notions of personhood, in which a person is understood as a single, coherent individual, with a coherent will. In global politics, this personhood is reproduced in the framework of the Nation-states, which are treated as coherent units making singular decisions on decision-making arenas in order to *represent* the sum of the wills of the individual persons who belong to it.

This model of international politics, based on individual and representative personhood, fails to comprehend and protect these other modes of being, thus requiring an exercise of translation. Such an exercise would not be merely grammatical, but a translation of perspectives, utilizing parallels to make a certain world's perspective comprehensible through the other's eyes and baggage.

In that sense, Youatt (2017) cites a couple of examples in which there are already some shifts occurring in the sense of incorporating collective persons into politics, perhaps some types of translation of the language of one world into the language of another. He mentions there are places in which collective persons exist, and are already being recognized as subjects of rights in "traditional" politics, like Ecuador and New Zealand:

> Ecuador has explicitly enshrined political rights for nature, or Pachamama, in its national constitution, while New Zealand has created legal personhood for the Whanganui River. While these rights so far exist only within the legal frameworks of nation-states, they are internationalized in a number of ways, ranging from the transnationalized drafting of the texts themselves, to the invocation of pan-indigenous politics, to the global historical conditions of colonialism and resource extraction in which these political sensibilities are located (YOUATT, 2017, p.40).

Those may be interesting pathways for IR to analyze, while taking on the interconnectedness challenge posed by the Anthropocene. He concludes, then, that there may be other ways to incorporate nature into politics that do not treat them merely as "a single object of technical governance" (YOUATT, 2017, p.52):

> Rather than understanding rights for nature movements as part of a singular narrative of care for the earth, or as new examples of close-to-nature indigenous peoples, this article suggests that they offer an ontological challenge to the forms of politics and nature that have generated such a crisis in the first place. Instead, IR might begin to understand environmental governance more politically, involving multiple kinds of collective persons who may not be fully transparent to one another. It is the politics among these collective persons that IR might begin to work toward understanding (Ibid.).

Youatt's critique in relation to treating nature (or "the environment") as an object of governance un-implicated in relation to people goes along the same line of Dalby's critique. However, Youatt goes further in exemplifying instances in which nature may already be under incorporation on different premises than those that treat it as a single, monolithic entity without implication in ourselves – in that sense, indigenous cosmologies are pointed as pathways towards that interconnectedness.

Dalby differs from Youatt in the sense that he is not necessarily proposing a shift in personhood, simply a recognition of issues as interconnected and co-constitutive (but how would this resonate in politics?). Youatt does not develop further his proposals in the paper we mentioned, but there may be parallels to the Manifesto's idea to treat certain natural elements as subjects in international forums. Would that also be an act of translation similar to Ecuardor and New Zealand's?

We have so far looked at two approaches: one focused in governance that advances institutional reform on international settings; another that advances ontological turns that would allow for us to structure international politics differently. My observations are as follows:

Anthropocene IR authors focused on governance are mostly addressing the grounds of high politics. Suggestions to create new institutions, especially like the Security Council, are more concerned with presidential decision-making and Nation-state representation in large scale than local policy and intervention design and implementation. However, the suggestion to create new international agencies (specifically focused on issues of concern for the Anthropocene) demands

mobilization on the higher ground of international politics, but also implies a scenario of structure and financing in all political levels for Anthropocene-motivated work.

Governance authors are also mostly focused on *the environment* as an object and site of politics, rather than the relationalities the Anthropocene advances – although admitting they exist, since they are inseparable from the concept itself. I contend that Anthropocene-motivated policy should and can take into consideration the human wellbeing and equality dimensions more robustly, as inseparable factors from environmental protection. The differential the Anthropocene brings in relation to environmental studies in general is precisely that it makes it possible to account for the connection and relations among issues. This is already being done by some German agencies, which will be discussed on the next chapters.

When speaking of international politics and/or policy, IR Authors concerned with the Anthropocene are generally mostly discussing issues of high politics. Youatt is as well when he speaks of national legislation and political representation. These are valuable insights, but there are other valuable places to look at in the development sector. By that, I mean not only in international/national legislation and decision-making, but especially in movements to create *local* policy and interventions designed based on reflections prompted by the Anthropocene.

IR has been showing us for decades the many possibilities to connect international movements with local contexts. Also, as we have been discussing, as the development stage has been incorporating the Anthropocene, this includes not only high politics, but also programs and interventions taking place in the local level. This is especially interesting and important since, as we have seen, the Anthropocene questions the barrier between local and global. How can international political actors collaborate for better local modes of life in sustainable, sensible ways?

Authors creating ontological proposals have some interesting insights, but they are mostly abstract. This is not to say they are without value – abstractions are necessary to make it possible for people to envision things differently, and subsequently to change things. In terms of policy, this created in me the interest to seek for sites of action where such thoughts can be operationalized. Some of these authors will say it impossible, and certainly it is no easy task to create sensible and respectful policy and interventions that benefit from traditional international

political structures (many of which have been created with the goal to impose liberal democracy in a colonial movement). However, important advancements have been made in that arena and thoughts around the Anthropocene are of added value.

Another useful observation is that the idea of the Anthropocene itself is entirely dependent on modes of production. Most IR authors we have examined here seem to share a common presupposition that modes of production are the main drivers of the Anthropocene, as they are also attached to the definition of the concept. Some of the authors will emphasize the modes of thought that drive the modes of production (extractivist, colonialist and racist), and others will emphasize the governance methods that may remodel and contain the damages of certain modes of production. But none of those I read develop ideas on local solutions or alternatives to major modes of production. The latter are a good terrain of possibility for development interventions, for example, focused on sustainable livelihoods, which attempt to give a local community the tools and resources to be able to walk a step closer towards self-sufficiency, benefitting the environment, human culture, autonomy, and wellbeing.

As Lovbrand et al highlight, the concept of the Anthropocene has already been recently appropriated in international politics, influencing policy frameworks and practices – mostly in the terrane of environmental security. They cite as an example Angela Merkel's speech at the Munich security conference in 2019, besides the Planetary Security Conference in Hague (2016) and the creation of the Centre for Climate and Security in Washington, 2017. They write that:

> Exactly how the Anthropocene vocabulary will influence direct frameworks, policies and decisions is of course difficult to tell, and given that the concept is debated, it will probably take time before its practical implications become clear. However, by challenging existing frameworks of thinking, we expect that the discursive scene of the Anthropocene will leave important marks on the study and practice of international relations in the years to come (LOVBRAND et al., 2020, p.6).

As I write this thesis, 2 years after their publication, the Anthropocene has also been incorporated into the Human Development Report – a major happening in international policy. Not only that, but it has also been flagship in several German initiatives. In 2020, the same year this HDR was released, the German Advisory Council on Global Change released a report on land stewardship in face of the Anthropocene (FISCHER et al., 2021), and the GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit, or German Agency for International Cooperation)

released their renewed transformation strategy with the Anthropocene as protagonist as well (GIZ, 2020).

My choice to focus specifically on development policy is explained: first, because the HDR is a major platform for policy, not only by UNDP, but also influences other important players and the state of the debate as a whole; second, due to the fact that all "Anthropocenists" seem to agree that modes of production are the main factor driving us towards destruction and oppression, even if the solutions proposed vary widely, and development programs often address correlated problems.

While authors situated at the so-called "ontological turn" highlight other modes of life and communities at the "margins" that are more sustainable to the planet and present more prosperous modes of life for us to inspire ourselves on, I aim to look at how investments for change in the local arena might be taking shape, as development discourses shift to accommodate theoretical worries with the Anthropocene – and hopefully to create new suggestions as to how this accommodation may take place in the near future in policy.

3 The Anthropocene in international development

3.1 Introducing key spaces and first appearances

This section begins by locating the Anthropocene in the current scenario of international policy, starting by the first appearances of the term. Taking the appearance of the term in the HDR as a highlight, in section 3.2 we provide a brief historical examination of the human development approach, contextualizing it in the broader scenario of its emergence. After that, in section 2.3 we pay closer attention to the evolution of thematic themes in the HDRs from 1990 to the present day to understand where the interest in the Anthropocene may fit and what may have changed.

Policy (and not just policy, but its programmatic applications) is a dimension of concern in this thesis. While proposals of ontological turns, despite valuable, are mostly abstract, and suggestions of global governance systems and stewardship plans are criticized for being limited and perhaps not transformative enough, I am concerned with how the idea of the Anthropocene might be *already* influencing policy and interventions.

Inside the scope of international policy, I chose a focus on development, firstly because the Anthropocene is being strongly propelled into development discussion, and secondly because I believe development, as a particularly future-oriented field of study, will be a crucial perspective to analyze the nexus, building also on the tension between local and global that the Anthropocene congregates.

Development involves discussions, regulations *and* interventions (programs, policies) – which are punctual interferences on local realities that have a direct dialogue with global concerns, initiatives, and repercussions. As a field, it does not remain entirely devoted to global regulatory frameworks, but also to their programmatic application, going beyond normative directives and focusing on project execution. These dual dimensions of development (on one hand, global regulatory and normative frameworks and, on the other, direct local programmatic intervention) relate to the blurred borders between global and local realities, a theoretical feature of the Anthropocene as a concept we have been highlighting.

As was previously mentioned on the introduction, the Anthropocene has been slowly starting to appear in the international policy arena over the past few years, and this has recently culminated in its nomination as the central focus of the UNDP's Human Development Report of 2020 (and later of 2022). This was not an isolated appearance – there had already been mentions and deeper considerations for policy strategies.

As stated in the previous chapter, Germany, especially, stood out in this respect. BMUB's 2030 Environmental Programme, published in 2016, had the Anthropocene as an issue; Angela Merkel mentioned it at a speech in a Security conference in 2019. In 2020, the same year this HDR was released, the German Advisory Council on Global Change released a report on land stewardship in face of the Anthropocene, and the GIZ (German Society for International Cooperation) released their renewed transformation strategy with the Anthropocene as protagonist as well. There can be a slight shift of focus similar to that observed in theoretical approaches: the Anthropocene may be discussed purely in relation to environmental policy and sustainable development, but it can also be fit into a more holistic approach alongside the human dimensions of life – as is the case with the UNDP, with its historical focus on people and societies (hence the "*human development*" approach).

Aside from the UNDP, I have conducted searches at databases connected to major development agencies and institutions that either implement or provide international funding for development initiatives,[11] which can be found below. The privilege of these reports can be explained by the past influence that these documents have in becoming good case practices and inspiring policy formulation in development and how they have been pioneers in incorporating the Anthropocene. This means that they constitute the precise medium through which the Anthropocene is incorporated in the broader history of development policy. Below, in the Figure 3 are thye main policies report released since 2015:

Title	Author	Date	Type
"Planetary Security: Peace and Cooperation in Times of Climate Change and Global Environmental Challenges"	Netherland's Ministry of Foreign Affairs	2015	Conference Report

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[11] OECD, the European Union knowledge hub for development, the World Bank, GIZ, the UK's Foreign, Commonwealth & Development Office. The search is non-exhaustive and means to locate illustrative tendencies.

"Planetary limits, social needs and economics for the Anthropocene"	OECD Observer	2015	Think piece
"Shaping ecological transformation: Integrated Environmental Programme 2030"	BMUB (Germany's Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety)	2016	Report
Planetary Boundaries		2019	Report
"Rethinking Land in the Anthropocene: from Separation to Integration"	German Advisory Council on Global Change	2020	Report
"Transforming our work: Getting ready for transformational projects"	GIZ	2020	Report
"Drought risk in the Anthropocene: from the Jaws of Death to the Waters of Life"	James Bevan (Chief Executive of the UK's Environment Agency) at Royal Society Conference	2021	Speech
Sand and sustainability: 10 strategic recommendations to avert a crisis	UN Environment Programme (with financial support from the Swiss Federal Office for the Environment)	2022	Report
Modelling Change in the Plastic Footprint of Agriculture	GIZ	2022	Report

Figure 3 - Policy Report Table

Source: Author

We can see that the Anthropocene has been somewhat known in policy at least since 2015, and it has mostly been connected to environmental agencies, programs and discussions. It is inexorably associated to efforts focusing on environmental preservation and the SDGs: we can see that among strategies, analysis, directives and reflections, the Anthropocene has been connected not only to the environment in general, but also to the more specific themes of sand, land, plastic and droughts. But the connectedness between the Anthropocene, societies and societal concerns is also commonly recognized in these strategies, which will be examined closer in our analysis on chapter 4. That is, the Anthropocene serves as an instrument not only to look at the environment *per se*, as an independent object, but also to the connections among people, societies and the environment, and to look for pathways to create mutually beneficial policies.

For now, we will focus on a broader outlook and locate the Anthropocene in development. We can start by establishing that, in the table above, the

Anthropocene is *explicitly* and strongly attached to two separate approaches to development: the *Transformative Approach* to *sustainable development*, advanced by the GIZ, and the *Human Development approach* to *international development*, used by the UNDP, which we have been discussing and that is very well known. Those approaches are framed differently, as the first one's focus is on *sustainable* development, the second is focused on a broader picture of *international development*. However, they are not mutually exclusive. Below is a brief introduction mapping these approaches before we explore the Human Development Approach in more depth.

The Human Development Approach focuses on establishing central goals and conceptions to development. Coming from a context in which economic growth was given protagonism in international policy, the Human Development approach started to argue that the main goal of development needed to be, broadly speaking, people instead of numbers. Development needs to comprehend not only economic growth, but to broaden people's scope of choices and possibilities through multifaced factors, to mitigate a wide range of social vulnerabilities.

The HDA advances the conception that humans have a broad range of needs and rights that need to be fulfilled for development to be truly realized beyond economic prosperity, such as education, health, protection, food and nutrition etc. All of this can and frequently *is* taken into consideration side by side with the environment, since by now it is a common understanding that a sane environment is perhaps the most fundamental precondition for human life to exist and human communities to prosper. For example, the 2020 HDR advances the need for "building nature-based human development" (UNDP, 2020, p.183), and the Human Development Reports have been directly or indirectly acknowledging the environment since the 1990s.

The GIZ's transformative approach does not necessarily challenge the conceptions advanced in the human development approach; instead, it complements them by bringing a more specific focus on methods for *sustainable* development (its main concerns being environmental) and establishes that interventions need to be attached to transformative change, which they define as: "Transformative change converts a current (ecological, social, political, economic, scientific, or technological) system or all systems together into a fundamentally new system that, from there on, forms the new mainstream" (GIZ, 2020, p.45). The transformative

approach brings a holistic understanding of multifactored issues cyclically impacting, and being impacted by, the environment. We have been arguing this connectivity between issue-areas is precisely the "novelty" advanced by the Anthropocene as a concept. In this context, the Anthropocene is understood as the mark of a turning point: it is not enough to engender "marginal" change, in face of the Anthropocene, development must come up with ways to transform things.

The GIZ's transformative approach has a type of "methodology"; in other words, there are a series of principles to be considered in the design of an action in order for it to promote transformative change. Transformative change locates itself in an intersection between incremental change and reform. For change to be transformative, it necessarily needs to: i) involve the possibility to shift paradigms; ii) involve the possibility to scale-up; iii) to be sustainable and resilient. The institution created the following image to explain these requirements:
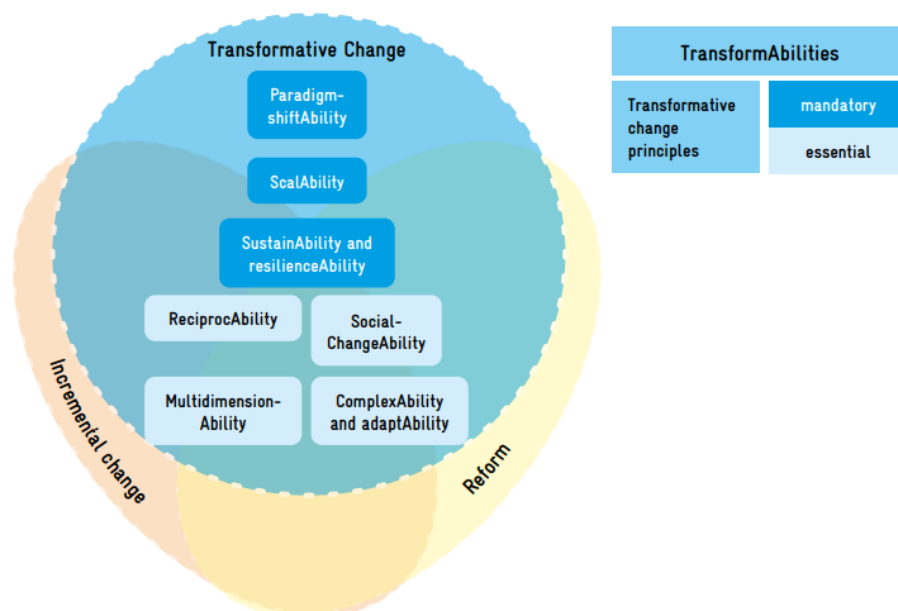

Figure 4 - design Principles for transformative change

Source: GIZ (2020, p.46).

In chapter 4, we will come back in more detail to the GIZ's Anthropocene strategies (as well as the other agencies mentioned above), reviewing best practices and lessons learned in processes of incorporating the Anthropocene in development.

For now, our focus is on the UNDP's Human Development Approach. We conceptualize contextualize the UNDP in the next section and, in chapter 3, analyze how the UNDP might be acting in relation to such recent incorporation of the Anthropocene as major theme area. The reason for this ordering is, first, because the UNDP has become the main cornerstone under which policy is elaborated. Also, looking more closely at the GIZ afterwards will allow us to gain more perspective in it critically relates to the UNDP.

The Anthropocene created unbalances that are hard to list and quantify adequately, but the thing is that for whatever environmental impact related to climate change, for example, there are direct consequences also for non-human and human life – human life not only in the sense of maintenance, but also in the sense of social, community, belonging, dignity, respect, and other values directly related to the human experience. For instance, climate change has a direct impact on food production. It also has a direct impact on the occurrence of disaster. All these create heavy tolls on humans not only in relation to their existence, but also in relation to their lives in the broader sense of the word.

3.2 Contextualizing the Human Development Approach

The idea of international development can be initially traced back to the 1940s, with the United States' Marshall Plan to assist European countries in reconstruction after the first world war (Williams, 2014, p.233), which involved the idea of country X (in this case, the United States), in a more privileged position, aiding country Y in "developing" itself. In this first significant appearance of international aid, through the USA's Marshall Plan, "development" mostly referred to reconstructing physical structures and the European economy. This was pictured to be a mutually beneficial agreement, leading to positive economic trades between countries and common growth. These ideas could only be operationalized through a liberal economic stance that saw free trade as a sign of progress, and capitalist democracy (as conceived by Western powers) as the ideal regime to achieve such prosperity. In that sense, development, international aid to the development of third parties, freedom and national security were seen as interlinked issues.

These ideas started to be significantly incorporated in the United States' foreign policy under leadership of the president Harry Truman, who summarized these connections on the speech below:

> One of the primary objectives of the foreign policy of the United States is the creation of conditions in which we and other nations will be able to work out a way of life free from coercion. This was a fundamental issue in the war with Germany and Japan. Our victory was won over countries which sought to impose their will and their way of life upon other nations. (...) I believe that we must assist free peoples to work out their own destinies in their own way. I believe that our help should be primarily through economic and financial aid which is essential to economic stability and orderly political processes (TRUMAN, 1947).

The advancement of this agenda by the United States was accompanied by a growing interest in the issue of "international development", which began to appear in agreements, events, projects, international funds and organizations. Over the past few decades, it has been a major theme in international politics and foreign policy, approached in a variety of ways (Unger, 2018).

However, the definition of development initially advanced by Truman (and other actors reflecting the same liberally economic stance) have been highly debated and contested, especially in relation to a few points of interest here: a) the presupposition that one country is better off and in a superior position to "aid", or to impose conditions to aid another, is a renewed instance of colonization; b) power asymmetries and hierarchies among countries need to be acknowledged, including the exploitation of Third World countries' cheap labor for mass production by more "well-developed" economies; c) economic growth does not necessarily lead to an improvement in people's life quality and measuring growth says nothing about people's life conditions.

All those debates have led to several currents of development thought, each with multiple degrees of influence over development institutions and measures taken by countries and governments over time. As any debate, this one is live and complex, but can be systematized through a few development theories. Truman's idea of development can be roughly referred to as an initial instance of the *Modernization Approach*, which later came to be more developed in the theoretical-academic arena, and heavily influenced development debates and policy over the 20th century.

The *Dependency Approach* was the first critical opponent to the modernization. It emerged in Latin America around the 1950s-1960s, having found

a stage in the Economic Commission for Latin America (ECLA), and has within itself subcurrents which are influenced by Marxist and Keynesian thought in varying degrees. Roughly speaking, the dependency approach starts by acknowledging the power imbalance between North and South countries, their economies and adequation to the capitalist mode of production. Countries in the global South tended to produce primary goods (which required cheaper, less qualified labor), and needed to import more expensive manufactured goods.

The Dependency approach is a critique of the belief coming from mainstream economics that this uneven situation could bring comparable degrees of development if the countries specialized in that niche and relied on comparative advantages. Of course, the reality with which these countries had to deal with was that such a difference resulted in cycles of debt with "first world" countries. In fact, these "First world" countries only had such an advantage because their economic surpluses were heavily predicated on the cheap labor exported by "third world" countries, while they had high levels of their populations living in poverty. Therefore:

> Dependency theory argues that under-development as experienced in Latin America and elsewhere is the direct result of capital intervention, rather than a condition of "lacking" development or investment. Prebisch, Gunder Frank, and others put forth that the very same processes that generate high-incomes in Western Europe and the United States are those that maintain the rest of the world in a state of dependency vis-à-vis wealth extraction. Rather than looking towards country-level characteristics to explain development, as per earlier theorizations, dependency theory asks that social scientists reorient their analyses to attend to the global economic forces that dictate development disparities both between and within nation-states (SCHMIDT, 2018).

The dependency approach found resonance in foreign and domestic policy in the global South around the same period, through policy measures to incentivize the production of national manufactured goods and governmental interventions in the economy to attempt to counter the effects of global power imbalances – an agenda that came to be heavily criticized and contested by neoliberal politicians and thinkers.

The modernization and dependency approaches constitute what is now called the "classic" currents of development thought. In that context, other critical currents started to appear, bringing focus to dimensions of gender, the environment and employment. Around the 1980's, an approach called the *Basic Needs Approach*

(BNA) also gained prominence in large institutions, advancing that the priority of development should be to ensure people's basic needs (such as health, education etc.) (FUKUDA-PARR, 2011, p.126).

The *Human Development Approach* also started to appear around the same time as the basic needs approach and was one of the first – and most popular in terms of agenda-setting – to divert the focus of development from economic growth and towards people. In the 1990's, as it was "institutionalized" in the Human Development Report and influenced the creation of the world-famous Human Development Index, it became largely more prominent than the BNA.

The approach that is now more commonly called Human Development can also be called the capabilities approach, rooted in Amartya Sen's thought. The economist's capability approach dates to the 1970's. It is:

> […] a theoretical framework that entails two normative claims: first, the claim that the freedom to achieve well-being is of primary moral importance and, second, that well-being should be understood in terms of people's capabilities and functionings. Capabilities are the doings and beings that people can achieve if they so choose — their opportunity to do or be such things as being well-nourished, getting married, being educated, and travelling; functionings are capabilities that have been realized. Whether someone can convert a set of means - resources and public goods - into a functioning (i.e., whether she has a particular capability) crucially depends on certain personal, sociopolitical, and environmental conditions, which, in the capability literature, are called 'conversion factors.' Capabilities have also been referred to as real or substantive freedoms as they denote the freedoms that have been cleared of any potential obstacles, in contrast to mere formal rights and freedoms (ROBEYNS; FIBIEGER BYSKOV, 2020).

As we have previously written in the introduction, Tadashi Hirai (2017) traced the origins of the term "Human Development" to the 1970s, mentioned occasionally on key spaces by large institutions. However, in its first mentions, it did not yet carry the meaning it currently has (derivative from Sen's capability approach):

> Human development at the beginning consisted of one of the ten policy measures for the promotion of economic and social progress; its scope was therefore much smaller than that of the current one. Related to this, it stressed a means-value framework (e.g. employment for growth, education for productivity) rather than an end-value method, even though it appreciated the importance of multidimensionality to development. For example, education for workers was prioritised over universal primary education. Moreover, it strongly depended on technical assistance from developed countries and international institutions, thus to a lesser extent taking into account self-reliance and local knowledge. Overall, human development was not formulated as an approach despite the debut of the term and thus did not prevail over the decade (HIRAI, 2017, p.8).

The HDA had points in common with the ideological framework behind the modernization approach: especially in the HDA's inception, it was framed in relation to *individuals* instead of societies; and it held the idea of freedom in high regards, following Amartya Sen. Freedom was supposedly a prerequisite for people to be able to achieve their potential in relation to their desires and aspirations, which would be a process only facilitated by the democratic regime (as defined in opposition to socialist and/or communist regimes). But it also had important points of departure from the Modernization approach.

The distinction between means-value and end-value mentioned by Hirai is a useful way to frame the shift this approach proposed. If humans and their well-being were initially considered means towards the end of economic growth, human development evolved to become an approach in which human wellbeing was the *end* of development, while economic growth is only useful to the point it helps achieve such wellbeing. In practice, this means leaving aside the "free-trade first and all else follows" ideology, opening the space for more substantive social policy interventions.

It is also important to note that, throughout the years, the HDA's precepts – like the individual as measurement unit, and the framing of freedom – have been shifting. The incorporation of the Anthropocene is one instance that demonstrates these changes. People's wellbeing considered individually is no use, it must accompany broader social and environmental processes and changes for it to have significant meaning in a geological era like the Anthropocene.

The same goes for democracy: the mere existence of a formally democratic regime stopped being equated with the promise of happiness for a given population as year after year inequality and poverty remained and even increased in democratic nations, alongside environmental degradation. Democracy and markets are not doing enough for the environment as well, and rising numbers of environmental catastrophes are strongly demonstrating this. We will watch these tendencies more closely in the following section, which examines the evolution of HDR's issue areas over the years, paying special attention to how the issue of the environment was initially framed, and how it became closely attached to the Anthropocene.

For now, it is important to speak further about the Human Development Index as well. Arguably, this has been the biggest and most influential contribution brought on by the HAD. The Index is a policy tool introduced alongside the 1990

HDR and the "institutionalization" of the Human Development Approach. It has become widely adhered to, facilitating the collection of data to create policy and measure its effects and relevance. According to the UNDP:

> The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions. The health dimension is assessed by life expectancy at birth, the education dimension is measured by mean of years of schooling for adults aged 25 years and more and expected years of schooling for children of school entering age. The standard of living dimension is measured by gross national income per capita. The HDI uses the logarithm of income, to reflect the diminishing importance of income with increasing GNI. The scores for the three HDI dimension indices are then aggregated into a composite index using geometric mean. (…) The HDI can be used to question national policy choices, asking how two countries with the same level of GNI per capita can end up with different human development outcomes. These contrasts can stimulate debate about government policy priorities (UNDP, N.d.).

The index does not purport itself to be a definitive and total measure of wellbeing nor to account for any and all types of inequalities (such as gender and race), but it provides important tools to reflect qualitative on policy design and monitor efficacy.
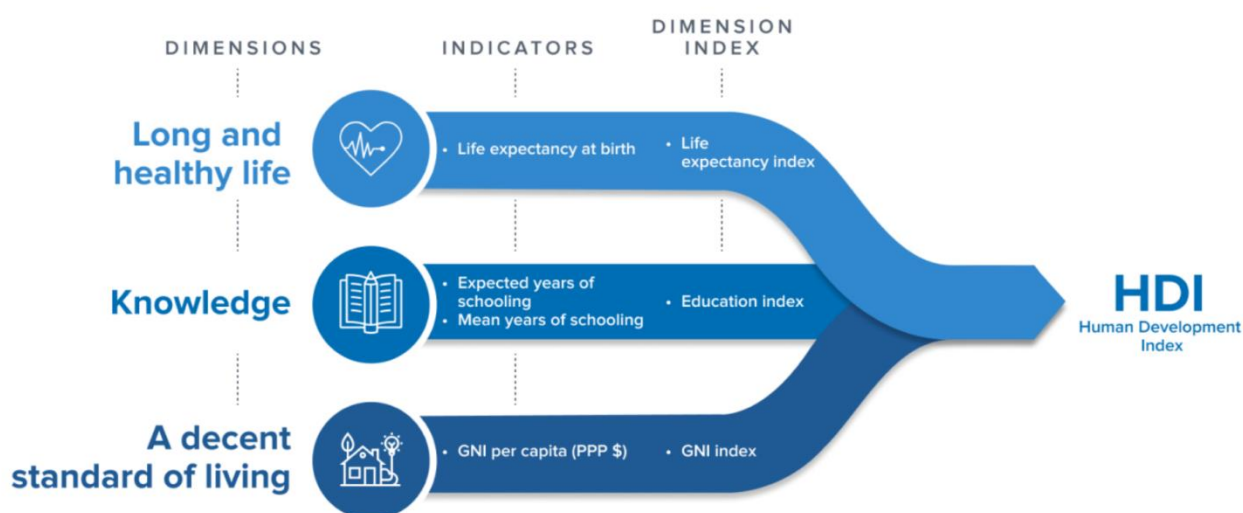

Figure 5 - UNDP's visual representation of HDI

Source: UNDP, N.d.

One of the contributions introduced by the 2020 HDR, the first bringing up the Anthropocene as a central theme, is an alteration of the HDI to include the environment in of its variables, attaching it to human wellbeing. This has important implications for policy, as this alteration in the HDI works to incentivize the

concern with environmental conditions in building policy and measure impacts. In the next section, we will investigate further the evolution of the HDRs up until this point.

3.3 30 years of Human Development reports until the arrival of the Anthropocene

The first HDR (1990) introduced the Human Development Index proposal, which came alongside a visibly optimist tone. The Report stated at the beginning of the Foreword, written by William H Drapner III, that:

> We live in stirring times. An irresistible wave of human freedom is sweeping across many lands. Not only political systems but economic structures are beginning to change in countries where democratic forces had been long suppressed. People are beginning to take charge of their own destiny in these countries. Unnecessary state interventions are on the wane. These are all reminders of the triumph of the human spirit. In the midst of these events, we are rediscovering the essential truth that people must be at the centre of all development. The purpose of development is to offer people more options. One of their options is access to income - not as an end in itself but as a means to acquiring human well-being. But there are other options as well, including long life, knowledge, political freedom, personal security, community participation and guaranteed human rights (UNDP, 1990, p.iiii).

The tone reflects the same appreciation for democratic regimes that motivated the Truman Doctrine, while introducing a strong element of humanist thinking – which, in terms of policy, was directly translated into the coining of *human* development indicators for monitoring, measuring and designing policy. As the Overview states: "This Report is about people." (UNDP, 1990, p.1), while human development is initially defined as "the process of enlarging people's choices" (UNDP, 1990, p.10).

Here, we can pause for a moment in order to explain what I mean by "humanism", a term that has been designating multiple currents of thought since ancient Philosophy until contemporary politics. Gathering elements from all these traditions, the most common conception of humanism refers simply to an ethical centrality of the human. Furthermore, according to Foucault: "… at least since the seventeenth century, what is called humanism has always been obliged to lean on certain conceptions of man borrowed from religion, science, or politics. Humanism serves to color and to justify the conceptions of man to which it is, after all, obliged to take recourse" (FOUCAULT, 1984, p.44). Humanism is frequently associated

with Enlightenment thought, since these have walked together, sharing elements like rationalism, for example. Illuminism has had humanism as one important precept, and plenty of humanists have been illuminists. But, according to Foucault's genealogy, these two things are not the same, exactly because of the varied presentations of humanism, which may or may not partake of the same principles as in enlightenment.

In sum, what may be called a humanist orientation, places value in the human in itself, thus creating a certain ethical imperative in which the human must be central, a postulate which leads to subsequent conclusions, such as that if the human is central, human rights must be respected, for example. This is done so simply because we *are humans* as such – although the idea of human may vary according to the utilized definition, which, as Foucault wrote, has been borrowed from science, religion or politics, depending on the current of thought and the historical moment. According to a more commonplace definition that can be currently found in the Wikipedia:

> Humanism is a philosophical stance that emphasizes the individual and social potential and agency of human beings. It considers human beings the starting point for serious moral and philosophical inquiry. The meaning of the term "humanism" has changed according to the successive intellectual movements that have identified with it. (…) Most frequently, humanism refers to a nontheistic view centered on human agency, and a reliance on science and reason rather than revelation from a supernatural source to understand the world. Humanists tend to advocate for human rights, free speech, progressive policies, and democracy (WIKIPEDIA, n.d.).

For this analysis, we do not need to go too much into the presuppositions embedded in the notion of human advanced by the HDA and the philosophical influences behind it. It suffices to understand that, in this approach, the human started to be advanced as an ethical imperative to guide development, and that human value is self-evident and precedes justification. This came alongside a liberal "package" of thought that can also be somewhat observed in the Truman Doctrine, in which science and democracy are the necessary elements to make human life and dignity viable.

Following the humanist orientation guiding the Report, it initially relies on the idea of choice as related to a focus on the individual as a decision-making unit. In such a context, "human choice" can be read as an individual action, unrestrained by political, social or financial constraints. This fits in with the idea that democratic

regimes (as opposed to the communist regimes of the time) would allow for people to have and enjoy these freedoms as soon as they could have access to the material conditions for so. The human was placed as an ontologically independent entity and used as a self-evident concept, meaning that not much thought is given to the cultural environment through which we understand ourselves as humans in relation to the world, to other animals, and other humans.

This is a standpoint that has been changing since then in the HDA. Although the 2020 Report firmly reaffirms it compromise with human freedoms as the core of the approach, it also states that our values

> […] can encompass more than anthropocentric perspectives", [and that]it is important to develop a deeper awareness of our interdependence with the planet—one that is already held and sustained in part by values and social norms by communities around the world, as noted in the discussion on biocultural diversity, and it is also starting to percolate through the discourse on capabilities (UNDP, 2020, p.41).

It is now more broadly comprehended in the latest HDRs that individual choice can only exist if there is a world in which life can thrive, a shift that places certain imperatives for individual choices in the Anthropocene. For example, people should be incentivized to choose to perpetrate environmentally sound habits. In the 2020 Report, there are sections dedicated to understanding individual consumption choices amidst larger social norm contexts.

In this case, choices are grounded not only on individual will and knowledge, but also on habits, traditions and on the existence and availability of environmentally sound options, which must be guaranteed by politics and conscious investments by the private sector. Thus, the human is still treated as an important unit but has its individual choices placed within a wider network of influence, which must ethically take into account society, the environment, and the future in general. Finally, we can observe that the Anthropocene's introduction renders the meaning of the human more flexible.

The mere consideration of all these other elements without which a person cannot exist (societies, communities, sustainability, a sound environment), and the deep connectivity between them, is an indicative of the flexibilization of the borders of what constitutes a human. Another indication of this shift is the inclusion of indigenous peoples alongside the Anthropocene discussion, not only in relation to respecting their rights as individual humans living in groups, but recognizing the importance of their community practices and the necessity to respect their

relationships with the environment in *their* own terms – a movement similar to the one performed by the Anthropocene theorists performing an *ontological revision*, as explored in the last chapter.

In this regard, for example, the 2020 HDR affirms that "Indigenous peoples' *ways of knowing and being*, and their governance systems, have supported biocultural diversity" (p.32, emphasis added). They go on in several moments of the Report, affirming and reaffirming that indigenous relationships to land, resources, and communities, carry valuable precepts for harmonious relationships between people and the environment, highlighting the importance of indigenous autonomy:

> Indigenous philosophies in Australia take as vital 'collective responsibility and obligation to look after land, family, and community'. For the Yawuru community of Broome in Western Australia, wellbeing and development refer to the interconnectedness of 'mabu buru' (strong country), 'mabu ngarrungu' (strong community) and 'mabu liyan' (strong spirit or good feeling).138 Intergenerational transmission of knowledge and practice, as well as reciprocal sharing of gifts from lands and waters, exemplifies these connections. But these connections depend heavily on the freedom of the Yawuru to live in ways they value and to carry out these responsibilities (UNDP, 2020, p.91).

In the early moment of the 1990 Report, the environment did not appear as such an imperative to rethink precepts and concepts, and the Cold War climate had the Western world deeply investing in democracy as a promising pathway. This processes of gradually making the environment a priority theme can be roughly seen through the choices of themes of yearly reports. Find bellow at Table 1 summarizing the titles.

Year	Title
1990	Concept and Measurement of Human Development
1991	Financing Human Development
1992	Global dimensions of Human Development
1993	People's Participation
1994	New Dimensions of Human Security
1995	Gender and Human Development
1996	Economic Growth and Human Development
1997	Human Development to Eradicate Poverty
1998	Consumption for Human Development
1999	Globalization with a Human Face
2000	Human Rights and Human Development
2001	Making New Technologies Work for Human Development
2002	Deepening Democracy in a Fragmented World
2003	Millennium Development Goals: A Compact Among Nations to End Human Poverty
2004	Cultural Liberty in Today's Diverse World
2005	International Cooperation at a Crossroads: Aid, Trade and Security in an unequal world
2006	Beyond Scarcity: Power, Poverty and the Global Water Crisis
2007-08	Fighting Climate Change: Human Solidarity in a Divided World
2009	Overcoming barriers: Human Mobility and Development
2010	The Real Wealth of Nations: Pathways to Human Development
2011	Sustainability and Equity: A Better Future for All
2013	The Rise of the South: Human Progress in a Diverse World
2014	Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience
2015	Work for Human Development
2016	Human Development for Everyone
2019	Beyond income, Beyond Averages, Beyond Today: Inequalities in Human Development in the 21st Century
2020	The Next Frontier: Human Development and the Anthropocene
2021-22	Uncertain Times, Unsettled Lives: Shaping our Future in a Transforming World
2022	New Threats to Human Security in the Anthropocene: Demanding greater solidarity (Special Report)

Figure 6 - HDR titles

Source: Author based on UNDP data.

We can see that the first years of the Report established central characteristics of Human Development, as the first one focused on concepts and the coining of the HDI, and the second on financing, which is a major preoccupation in relation to the viability of any policy proposal. Democracy (and derived issues such as democratic participation and cultural liberty) was a recurring theme, and the environment was mentioned several times since 1990, but only gained headline importance in 2006, starting from the water crisis. It was then that the environment – and related elements, in this case, water – started to become more important themes that needed to be prioritized by governance. Before that, while environmental issues were already connected to several intersectoral issues, they

were not emphatically connected to the definition of individuals and societies within a cultural context, nor to their modes of life and production.

The 2006 HDR summarizes the problem of unequal and insufficient access to water in the following terms:

> […] the sources of the problem vary by country, but several themes emerge. First, few countries treat water and sanitation as a political priority, as witnessed by limited budget allocations. Second, some of the world's poorest people are paying some of the world's highest prices for water, reflecting the limited coverage of water utilities in the slums and informal settlements where poor people live. Third, the international community has failed to prioritize water and sanitation in the partnerships for development that have coalesced around the Millennium Development Goals. Underlying each of these problems is the fact that the people suffering the most from the water and sanitation crisis—poor people in general and poor women in particular—often lack the political voice needed to assert their claims to water (UNDP, 2006, p.vi).

It describes unequal and inadequate access to water and sanitation as a problem with plenty of intersectional implications. For example: lack of adequate access to water and sanitation in schools not only affects health and disease transmission, but it also disproportionately affects girls' enrollment and attendance, all of which are connected to girls' difficulty in ensuring menstrual hygiene, a phenomenon typically called menstrual poverty. Therefore, the promotion of adequate access to water in schools has already presented positive results not only in relation to health, but also towards gender equality, which the Report endorses by presenting the example of a UNICEF intervention in the provision of water and sanitation in Bangladesh schools that increased girls' enrollment in 11% (UNDP, 2006, p.47).

This report was immediately followed by the 2007/2008 edition that focused on climate change, in which the question was framed as follows: climate change needs to be addressed, controlled and countered because it threatens human beings and their possibility to make (individual) choices. The overview even includes the question of enlightenment (which, as we have written above, can share features with humanism):

> Climate change is the defining human development issue of our generation. All development is ultimately about expanding human potential and enlarging human freedom. It is about people developing the capabilities that empower them to make choices and to lead lives that they value. Climate change threatens to erode human freedoms and limit choice. It calls into question the Enlightenment principle that human progress will make the future look better than the past (UNDP, 2007, p.1).

In relation to policy recommendations, the 2007/2008 Report suggests two necessary pathways: adaptation and mitigation. Adaptation means governments will have to invest in the necessary structures and measures to avoid damage deriving from climate change (for example, the more common occurrence of floods or droughts that impact agricultural production, housing, among others). Mitigation refers to governmental measures to deter gas emissions – for example, by regulating an increase in carbon prices so that those reflect their social costs as well. This would incur in short-term economic costs, so the Report appeals for governments to take into consideration not only electoral cycles, but also necessary long-term gains when prioritizing certain areas for investment.

It also highlights that excessive bureaucratic control should be avoided and that the market needs to regulate itself towards better decision-making: "markets and prices will have to be put to work, so that private sector decisions can lead more naturally to optimal investment and production decisions" (UNDP, 2007, p.vii). This HDR also provides examples of development programmes addressing the environment, which we will explore with more depth in the upcoming chapter.

Those initial environment-centered reports, from 2006 and 2007/08, have rights-centered and human-centered views that are already very different from the economic-growth centered view which motivated international development in its inception since they began discussing the interlinked implications of environmental degradation. The 2007 Report, for instance, strongly focuses on the connection between sustainability and equity, pointing towards a tendency that would be later refined in the 2020 HDR, when the environment was finally introduced as an indicator in the HDI.

More recent views attempting to address the Anthropocene have built up this recognition of intersectionality, a concept which is largely deployed as an attempt to recognize the complexity of social structures as well as their placement in the artificial divide between nature and society. Thus, these documents increasingly approach the environment beyond mere issue areas in need to be politically managed, acknowledging the ways in which these issues reverberate in our relationship to the world and to others.

In the more recent Anthropocene-centered reports, environmental issues are not only attached to a variety of other issues like health, education and gender equality (as in the previous example of water and gender equality), but emphasis is

also given to traditions, consumption, social patterns and collective modes of living, creating a subtle shift in ontological presuppositions. Another relevant aspect is the emphasis in humanity as always interlinked to social customs, which extends growing consideration towards *communities* as the units being instead of the past focus on decision-making persons.

One example is the one we mentioned above regarding indigenous communities not only as rights-holders in governance systems, but also recognizing the importance of their relationship to land and their modes of life and organization. The Anthropocene-centered 2020 HDR also approaches the issue of water, the spotlight of 2006, relating it to indigenous peoples and the particular challenges they face:

> Consider indigenous communities, which have been disproportionately subject to air, water and soil pollution and systematically excluded from healthy environments. In Esmeraldas, Ecuador, home of the Afro Ecuadorian Wimbi community, a conflict started with a palm and wood company taking over territory. The company claimed ownership over the territory and replaced existing cacao plantations with others intended to extract palm oil. The change in land use, which included deforestation, affected 57 percent of the territory of Esmeraldas, and the province has turned into a palm oil producer. Water sources around the area are highly polluted, which combined with the existing malfunctioning of safe water and sanitation systems puts the local population at high risk. The Niger Delta, the largest wetland in Africa and home to the Ogoni communities, has suffered from oil spills, impairing water quality. Several Ogoni communities have been drinking water with high hydrocarbon levels at 41 sites, and community members of Nisisioken Ogale have been drinking water with carcinogens. The Peruvian Amazonia has also been affected by oil spills, which contaminated soil, water and the most important species for indigenous peoples' diets, with 50 percent of the general population and 64 percent of children in the area showing high levels of mercury (UNDP, 2020, p.67).

The previous 2006 HDR also mentions indigenous communities superficially a few times in relation to their losing water rights to large companies. The difference, more than 20 years later, is the larger space given to this question, and the important recognition of respecting modes of life. Moreover, in the passage above, you can see predatory production practices being linked not only to environmental degradation (which, as established, brings high costs for all of humanity), but also to the immediate health of certain traditional communities, their dignity, ability to live accordingly to their traditions and beliefs, and autonomy as a group. Besides the recognition of chain-linked issues, their causes and effects, it can be said this is a more emphatical stance towards the central issues of *production and extraction* than can be seen in 2006.

This also gives place to another observation: the Anthropocene brings out a shift in perceptions regarding production. If the first HDRs advanced human well-being as *more than* economic growth, later HDRs are giving colors to what this growth may look like in the local arena and pointing more emphatically to the fact that economic growth may sometimes be prejudicial to human well-being. Production must be regulated and changed in innovative ways if we are to save the environment and ourselves. This involves not only regulating carbon emissions, but also protecting indigenous rights to land, for example, and fomenting local production.

We can read, in the passage below, the 2020 Report highlighting the importance of popular participation in relation to means of production – this is also something that links the local with the global, as production is necessarily local, and communities need to participate in decisions relating to it. Furthermore, it signals the transformative potential of this type of inclusion:

> Locally informed perspectives also suggest strategic approaches to tackling planetary imbalances. First is the need to shift our way of thinking—away from the belief that self-interest eventually leads in all cases to the common good, away from the perception that higher consumption leads to greater overall wellbeing and towards an integrated approach of development that takes into account not only economics but all social sciences, including the humanities. Second, structural change in the ownership of productive assets can be supportive of easing planetary pressures. *Cases in India and Nepal show that environmental decision-making can be democratized when control over the means of production is transferred to local communities, which can lead to more sustainable outcomes.* Participation is key for strengthening transparency and accountability—among politicians but also among scientists and engineers, who need to consider socioenvironmental challenges in their work. Third, education is paramount. It is not so much a matter of teaching certain skills, reducing resource consumption being an important one. *Rather, its purpose is transformative: It is about dismantling unsustainable perspectives of growth and development and constructing new worldviews that ease planetary pressures while advancing human development* (UNDP, 2020, p.150).

Furthermore, the 2020 Report takes a significant step towards including terms utilized in Anthropocene theory, such as *knowledge systems*, *futures, building futures*, and *planetary boundaries* in development vocabulary. That is a strong indication that Anthropocene theory can and has been permeating practice and practical frameworks.

Another relevant difference in this renewed stance regarding indigenous peoples than in the last decades is precisely the connection between their knowledge systems/ways of life and sustainability in modes of production. They assume a

position not only of a rights-holder population, but also a population which has valuable lessons for humanity in general. Latin-American peoples are cited in a context that connects their belief systems to their production methods, i.e., the fact these communities organize themselves and their beliefs in a certain way also implies they have more sustainable methods of production:

> Fundamental to the Quechua concept of "Sumac Kawsay" (good living) is reciprocity, relationality and "a profound respect of the differences (and an emphasis on the complementarities) among human beings and between human beings and the natural environment." Similarly, "Ayni" (reciprocity) is "one of the most important tenets for the Andean people and is exemplified in the adage "what is received must be returned in equal measure." According to Mariaelena Huambachano, these and other concepts enabled and ensured that Inca agricultural systems were grounded in sustainable production methods and food security (UNDP, 2020, p.91).

If the definition of human was initially taken for granted in 1990, aspects related to growth and production may also have been taken for granted, but not anymore. In that regard, the passage below illustrates this shift quite well:

> Human societies are embedded in the biosphere and depend on it. But by extracting from it for economic activities that shape consumption and production patterns, they have also been depleting it. Much of this happens in the background and seems invisible to social and individual choices, similar to forgetting our dependence on the air we breathe. To make the interactions between social and ecological systems more visible, it is useful to look at material and energy flows in our societies and their impact on planetary processes (UNDP, 2020, p.29).

Again, we can affirm that the difference advanced by the Anthropocene is a reformulation of how to pose the question, focusing on the intertwinement of issues – society is connected to the environment, as individual choices are connected to social tendencies, norms and the environment, freedom is attached to the continuity of the planet etc.

And how may this resonate in policy? These relevant shifts in perception affirm the importance of fomenting development approaches that are not only rights-centered, but also propose creating the conditions for viable sustainable and autonomous means to produce and sustain communities – not just individuals – in ways that address multiple types of issues, such as environmental degradation, cultural traditions, basic needs such as food and water.

Anthropocene-oriented policy can act in two ways: promoting large-scale discussion, governance and regulation mechanisms to advance more sustainable practices, mostly related to production (something that is being increasingly addressed over the past few decades and is observable in the previous HDRs we

have mentioned); and it can invest in the creation of local means to foment sustainable virtuous cycles addressing intersectoral needs of both the environment and communities, and linking the local with the global, since positive impacts reverberate globally. The latter is a type of framing of issues and proposals that we can clearly see in the GIZ's transformative approach, which we look at more closely and exemplify on chapter 5.

In the next chapter, we will look to some of UNDP's programmatic interventions over the past decades to see how they are being framed and how they may enter in conversation (or not) with the HDR approaches we have been discussing. Special attention will be given to UNDP's coining of 'Nature-based solutions'. This is an idea they have repeated several times over the 2020 HDR to describe more 'tangible' actions in relation to the Anthropocene. It has also been used, as of the past few years, as a category to describe one of their lines of projects, which they connect to the Anthropocene discussion.

4 The Anthropocene in human development interventions

4.1 Adaptation and mitigation paths for policies and programs

What may interventions attempting to address "Anthropocenic" problems look like? Between ontological reflections and global governance proposals, there is relatively little attention to the role of local interventions in creating a bridge to work through global issues through local action, which justifies the focus on this dimension in this thesis. I want to substantialize both how "ontological shifts," or shifts in our ways of thinking, may or may not be happening and how global governance may be reverberating in the local arena – as "the environment" is more than just an abstract term, it is composed of local spaces.

First, the Anthropocene is a discussion almost always connected to the environment, as the former's definition refers precisely to a geological era. When used in international policy discussions, the Anthropocene almost always comes attached to the sustainable development arena in particular or to environmental concerns in politics and policy in general – which is what we observe in the 2020 HDR and other policy documents we mentioned last chapter and further develop later. The environment is the central actor of the Anthropocene, although it is unattachable from humanity and its contexts.

In that sense, the Anthropocene as a discussion topic leads to suggestions on how to improve relationality with the environment and many other correlated factors around it. Parallel to that, interventions (like policy and programs) that are attached to discussions on the Anthropocene tend to address environmental impacts arising from the emergence of the human as a geological force on earth with the power to change natural settings in large proportion, especially through its means of production, changing environmental conditions importantly and irrevocably.

Therefore, *programmatic documents and policy discussions around the Anthropocene mostly point towards actions that aim to create sustainable improvements in the environment* (but can include many other intersectional issue areas around it, as we have been discussing). Still, sustainable development interventions existed before the Anthropocene gained space as a thinking tool in

development platforms. How are suggestions to address the Anthropocene in policy and programs being framed? How may the acknowledgment of the Anthropocene influence the shape of these interventions?

This chapter raises examples of how HD interventions have been taking shape over the past decades to visualize how development has been responding to the environmental pressures and impacts described in the 2020 HDR. After that, I aim to examine how these responses converse with one major feature of the Anthropocene discussion: the cross-sector nature of problems and solutions, and the fundamental link between human and environmental well-being. How to achieve this in practice? Is it being done? Is there any novelty in recent Anthropocene discussions?

As the environment is the central theme of this geological era, now we may exemplify some of the most common consequences of environmental unbalance arising in the Anthropocene for humans (who are, evidently, the final target of human development approaches, our main object of research). *These consequences are the bridge that connect Anthropocene theoretical and/or conceptual discussions to interventions that come in the form of policy and programs.*

These environmental consequences we have been facing in the Anthropocene may take the shapes of: droughts and floods affecting production and leading to food insecurity and nutrition risks to adults and children, housing insecurity, lack of proper water and sanitation leading to health damage, besides unpredicted catastrophes such as large storms causing all of the issues above, among others. As we have previously said, all these factors intersect with other problems such as gender inequality, lack of access to education and other public services, lack of autonomy and inability to live according to one's customs and beliefs, forceful displacement and separation of communities, damage to mental health.

These consequences preexist Anthropocene discussions and affect vulnerable populations disproportionately, increasing their vulnerability in multiple ways and demanding targeted responses to tackle the challenges they create. As we pointed out in Chapter 3, the 2007 HDR points towards two paths for countering such environmental damages: efforts to *adapt to crisis*, thus diminishing the vulnerability they cause; and efforts to *mitigate damage*. Policies and programs can thus be related to these two types of efforts. Common responses involve: i) creating

mechanisms for people to handle environmental shocks without falling into more vulnerability, turning them more resilient; or ii) creating paths to improve overall environmental conditions of the planet, thus avoiding the occurrence of environmental shocks.

One common and recurrent type of public and/or developmental intervention to address such problems comes in the form of "aid", which can be financial or not. These may be, for example, emergency cash transfers (monetary transfers of a certain value for affected families) or food transfers (concession of food items such as grain rations). There are numerous studies showing successful results for some such interventions in relation to varied indicators (WORLD BANK, 2009). They allow people to fulfill their basic needs and heat the economy while finding solutions for sustainable livelihoods and mitigating correlated impacts, like gender inequality (SIMON, 2019), which make them *adaptation* efforts.

Adaptation efforts are of a more local scope as they refer to the consequences of environmental unbalance for punctual segments of people. The 2007 HDR, which introduces the environment centrally, cites several examples of programs attempting to counter the impacts of environmental damage on people and focuses mostly on social protection interventions.

By social protection, I mean the most standard international definition of policies and programs conducted mostly by national governments, comprehending social assistance (non-contributory transfers), social insurance (contributory schemes), and sometimes labor market interventions, which may be either contributory, non-contributory or a mixture of both. In relation to social protection, the international development sector may enter with financial support, system strengthening, and capacity-building support, while protagonism still lies with national governments.

The 2007 HDR mentions the examples of *Bolsa Família* conditional cash transfer in Brazil, and Ethiopia's Productive Safety Net Program. They describe the latter in contrast to "simple" aid interventions in the sense that it attempts to create more economically sustainable practices, while prevent damage from predictable events of food insecurity, improving people's resilience to them, rather than just responding to events in emergency:

Traditionally, the response to food insecurity has been food aid. Every year, donors and government have estimated the amount of food aid needed to cover chronic deficits, topping up that amount through emergency appeals. The PSNP is an attempt to break with this humanitarian model. It is an employment-based social transfer programme. Targeting people facing predictable food insecurity as a result of poverty rather than temporary shocks, it offers guaranteed employment for 5 days a month in return for transfers of either food or cash—US$4 per month for each household member (…) Another distinction between the PSNP and humanitarian food aid is in its level of ambition. The objectives include not just smoothing household consumption by bridging production deficits, but also protecting household assets. Cash transfers are seen as a vehicle for building assets, increasing investment and stimulating rural markets, as well as for preventing the distress sales that push people into destitution (UNDP, 2007, p.180).

At that point in time, the program was predicted to run for 5 years, financed by the government and donors (like international development institutions). It was ongoing as the Report was published, but the authors wrote it had been showing promising results in relation to the monitored indicators, which were[12]:

a)   Consumed more or better food than last year;

b)   Retained food production for consumption;

c)   Avoided having to sell assets to buy food;

d)   Avoided having to use savings to buy food;

e)   Used healthcare facilities more than last year;

f)   Kept children in school longer than last year;

g)   Acquired new household assets;

h)   Acquired new skills or knowledge.

It is relevant to mention that the environment itself is not a central aspect in these programs' design (work is, and other related benefits, such as capacity-building), even though the program aims to create resilience to environmental crisis events. In 2020 thinking, on the other hand, the focus comes stronger in the environment itself, and *incorporating this as an active aspect of policy*. Many examples cited in the 2020 HDR involve the environment as a central aspect of policy design in the scope of *nature-based solutions* – which will be developed in the next section.

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[12] The Program has since then been criticized in relation to its economic effects, with analysts point out that it may have led to food price increases, diminishing the effectiveness of the program, and suggesting policy options to counter those effects, like a combination of food and cash transfers (SABATES-WHEELER; DEVEREUX, 2010).

Back to adaptation programs – their design is not necessarily thought out to accomplish the virtuous cycles mentioned in the last chapter as much as to respond to emergency needs created by shocks. The 2020 HDR also introduces the idea that adaptation is by no means a desirable scenario:

> Most of those vulnerable to the rise in sea level live in developing countries, particularly in Asia. Low human development countries are less exposed in absolute terms because they have much shorter coastlines than higher human development countries on average. But they face greater relative exposure per kilometre of coastline. People and societies adapt to changes. But adaptation can also be extremely costly in human development terms. Environmental shocks are already a leading source of forced displacement in the world (25 million people among only the internally displaced, in 2019; box 2.3). Some estimates indicate that 1 billion people worldwide could face forced displacement by 2050. The realities of the Anthropocene are overlaid on existing massive inequalities in human development. Nature's contributions to people are declining where people's needs for nature are now greatest (…) (UNDP, 2020, p.62).

The HDRs organize illustrative examples and central issues in boxes for easier visualization throughout the document. After observing case studies of examples in policy and programs mentioned in the 2007 HDR (first environment-centered one) and 2020 HDR, I realized the 2020 document focuses more on including the environment explicitly in all programs (differently from 2007, when social protection programs unattached from environmental concerns were case examples for adaptation), and on mitigation measures rather than adaptation (or in including mitigation elements even in adaptation initiatives). For example, by strengthening the Sendai Framework for disaster risk reduction – the framework, from 2015, aims to improve resilience to shocks but also comprehends a dimension of reducing the risk of occurrence of shocks.

The *mitigation* path is the one that comes to tackle environmental unbalance in itself, not merely looking at its consequences. In relation to the latter, the 2007 HDR focuses on measures to counter carbon emissions, which are mostly governance and economic policies to control and modify industries (arguably more delicate and difficult than localized interventions, depending on compliance from varied actors):

> Emissions of CO2 can be cut in several ways. Increased energy efficiency, reduced demand for carbon-intensive products, changes in the energy mix—all have a role to play. Mitigation costs will vary according to how reductions are achieved and the time frame for achieving them. They arise from financing the development and deployment of new technologies and from the cost to consumers of switching to lower emissions goods and services (UNDP, 2007, p.51).

While in 2007 the focus was on CO2 emissions, mitigation paths have evolved since then and now include other measures such as coral reef restoration to prevent tsunamis and earthquakes, land demarcation to protect indigenous communities and preserve forests which counter carbon damage, and many others. These measures lie between involving communities, creating local work and promoting environmental reconstruction.

Take a Mexican coral reef insurance scheme, the first in the world, used as example in the 2020 HDR (UNDP, 2020, p.190). According to the report, coral reefs may protect coastal communities from adverse weather events like tsunamis and hurricanes, and this has been experienced in Mexico when communities with intact coral reefs suffered less impacts from hurricanes that affected the region. Simultaneously, coral reefs are negatively impacted by activities that degrade the environment like pollution or inadequate fishing practice. Thus, a private-public partnership with the Mexican government, an insurance company and the Nature Conservancy to create a coral reef insurance policy which works as follows:

> The state of Quintana Roo established the Coastal Zone Management Trust in 2018 to manage funds collected for coral reef maintenance and reconstruction. In 2019 the trust purchased the first coral reef insurance policy in the world. The policy will ensure the repair of coral reefs after severe storms, providing the community the financial resources to manage the reefs and prevent erosion to coastlines. The policy covers six municipalities and 160 kilometres of coastline, including the city of Cancún and the municipality of Puerto Morelos. (…) On Mexico's Caribbean coast, volunteer squads of divers are learning to repair the coral reefs that shield the shore. The Nature Conservancy gathered fishers, researchers, hotel owners, tour operators, local government representatives and coral specialists and designed a training course for volunteers to repair reefs and the surrounding infrastructure. The divers learned skills such as using pneumatic drills underwater and inserting metal rods to keep larger pieces of reattached coral in place, setting them like broken bones. They practised with cement and marine epoxy on pieces of dead coral and learned to inflate nylon lift bags to move large pieces of coral and storm debris" (UNDP, 2020, p.190).

In this intervention one may see the combination of diverse factors and results: it creates skills, it can work as a tool to empower communities in the sense that they can have the necessary means to take the lead in preserving their own environment with financial support, and financial institutions in providing such support, through partnership with government. It is an adaptive measure, as coral reef restoration may happen after a shock, but it is also an adaptation effort, because such restoration also prevents future shocks.

Anthropocene thinking problematizes the divide between adaptation and mitigation interventions, showing that policy initiatives can associate both. Thus, ature-based solutions are key to incorporating environmental protection and restoration into solutions developed to address all sorts of problems. The following section contextualizes and examines the emergence of nature-based solutions as an approach by the UNDP, placing it within the broader context of the policy environment facilitated by the Anthropocene.

4.2 Changes in strategy and nature-based solutions for the Anthropocene

The 2020 HDR constantly reiterates the importance of nature-based solutions. This is a somewhat new strategy and vision they have been employing for projects, and the category itself was founded in the 2018 strategic plan.

UNDP's first annual strategic plan was made in 1995. The first few plans established mostly operational strategic goals for the institution, reiterating the functions of the Organization in relation to national governments. In 1998's plan, we can read that the goals are to:

(a) Support programme countries and strengthen country offices and headquarters in their efforts to achieve sustainable human development (SHD);

(b) Implement successor programming arrangements efficiently;

(c) Play an effective advisory role and mobilize resources for SHD;

(d) Strengthen UNDP partnerships and enhance UNDP performance in countries in crisis;

(e) Build a leaner, more accountable learning organization" (UNDP, 1998).

Twenty years later, in the strategic plan of 2018, we can see an even more elaborated approach focused on issue areas for action beyond operational processes, aiming at achieving the 2030 Agenda. The central vision of the 2018 plan is "to help countries to achieve sustainable development by eradicating poverty in all its forms and dimensions, accelerating structural transformations for sustainable development and building resilience to crises and shocks" (UNDP, 2018, p.10).

The plan highlights that there can be no one-size-fits-all solution and claim that there are three dominant development settings. From there, it establishes 6 *signature solutions* that can be employed to address problems in each development setting to achieve the 2030 agenda. The solutions are non-exhaustive and do not refer to one or other development setting specifically, meaning UNDP efforts can and should be combined towards different issue areas, addressing different problems and achieving solutions in different settings. However, this format solidifies strategic priorities and avenues for action.

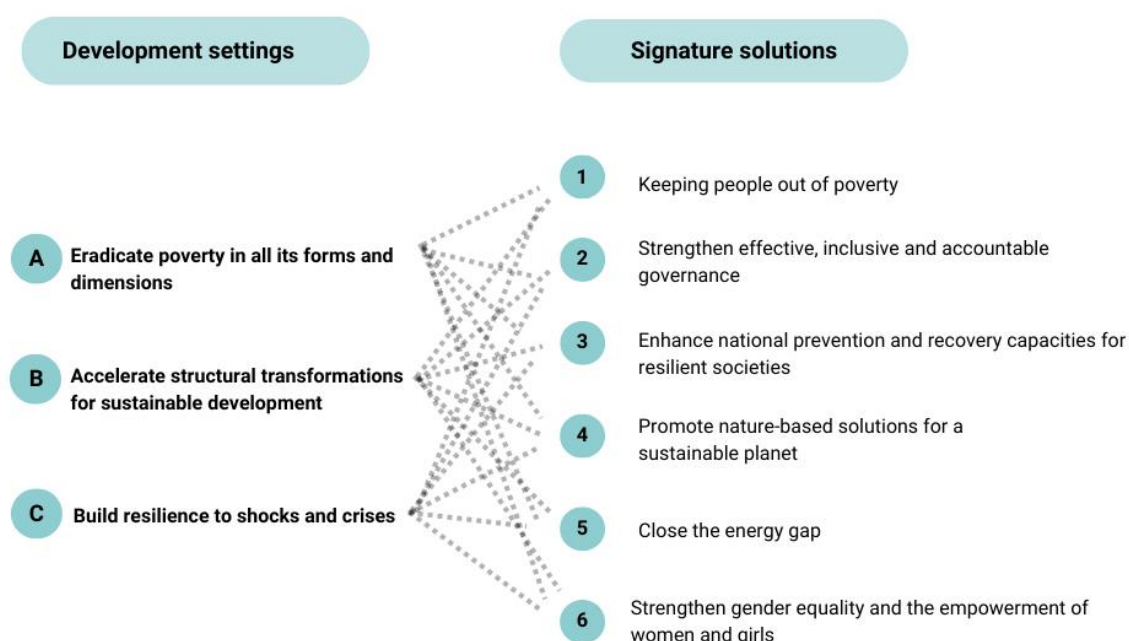The development settings and signature solutions are as seen in the following image:

Figure 7 - Fluxogram of UNDP signature solutions

Source: Author, based on information by UNDP, 2018

"Nature-based solutions for a sustainable planet" is the solution most associated to the problems traditionally connected with the Anthropocene. This association can be explicitly seen in the 2020 HDR. The Report came shortly after the "signature solutions" were created and it repeatedly points to "nature-based human development" and "nature-based solutions" as pathways for international development to navigate the Anthropocene.

This solution, number 4, is typically correlated to climate change, but it can also involve many more intersectional areas, such as food security and all it engenders:

> Nature-based human development helps tackle three central challenges of the Anthropocene together—mitigating and adapting to climate change, protecting biodiversity and ensuring human well-being for all. Nature-based human development is about nesting human development—including social and economic systems—into ecosystems and the biosphere, building on a systemic approach to nature-based solutions that puts people's agency at the core. The potential is huge, with benefits ranging from climate change mitigation and disaster risk reduction to improving food security and increasing water availability and quality. A set of 20 cost-effective actions across global forests, wetlands, grasslands and agricultural lands could provide 37 percent of the mitigation needed through 2030 to keep global warming below 2 degrees Celsius above preindustrial levels and 20 percent of the mitigation needed through 2050. About two-thirds of that mitigation potential (equivalent to one-fourth of total mitigation needs) is linked to forest pathways, mainly reforestation. The contribution per capita of indigenous peoples in the Amazon to climate change mitigation through their actions to preserve forests amounts to as much as the emissions per capita of the top 1 percent of the global income distribution (UNDP, 2020, p.10).

Complementarily to that, the 2018 annual strategy reads that investment in nature-based solutions may take the following paths and shapes:

> These actions will build on existing partnerships with these agencies including for instance through the Global Environment Facility, the Poverty-Environment Initiative and the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries. Furthermore, addressing finance, tenure, water and land rights, with a clear understanding of the differentiated impacts, access and contributions of women and men and also of indigenous communities will be critical. In some development contexts, strengthened ecosystem managementand nature-based solutions can help achieve food and water security and sustainable livelihoods. In other contexts, this signature solution will help Governments to identify and access new financing opportunities, promote policy coherence on natural resources and help transitions to green economies. In the aftermath of crises, this signature solution can assist with sustainable recovery efforts protecting natural resources, biodiversity and ecosystems (UNDP, 2018, p.14).

This solution is closely connected to the mitigation efforts described in the last section, and even adaptation efforts as well. Again, these interventions may come in the shapes of policy and programs. In policy, these measures may be national and international agreements to impose regulations on emissions and other environmentally detrimental effects of large-scale production; land demarcation regulations; economic incentives to foment sustainable habits in individuals and industries; among others. In programs, they can take the shape of sustainable

livelihoods and/or other interventions related to agriculture, production and resource management, impacting cross-sectoral areas.

The UNDP's project repository catalogues projects with their signature solutions as tags, relating their interventions to each of the solutions. Solution 4 starts to appear in 2012, first through retroactively placed tags since the institutionalizing of these in 2018. This typology was helpful in creating more coherent workflows and priorities aligned with previous UNDP efforts. Below you can see a graph showing the shifts in investment the UNDP has been to projects categorized as belonging to solution 4 since 2012, with a visible overall growth over the years, even with a small downturn in 2020 at the beginning of the COVID-19 Pandemic. Note at the Figure 8 that one single project may be fit into more than one solution and that projects can go on for several years; the numbers comprehend the number of projects active each year.
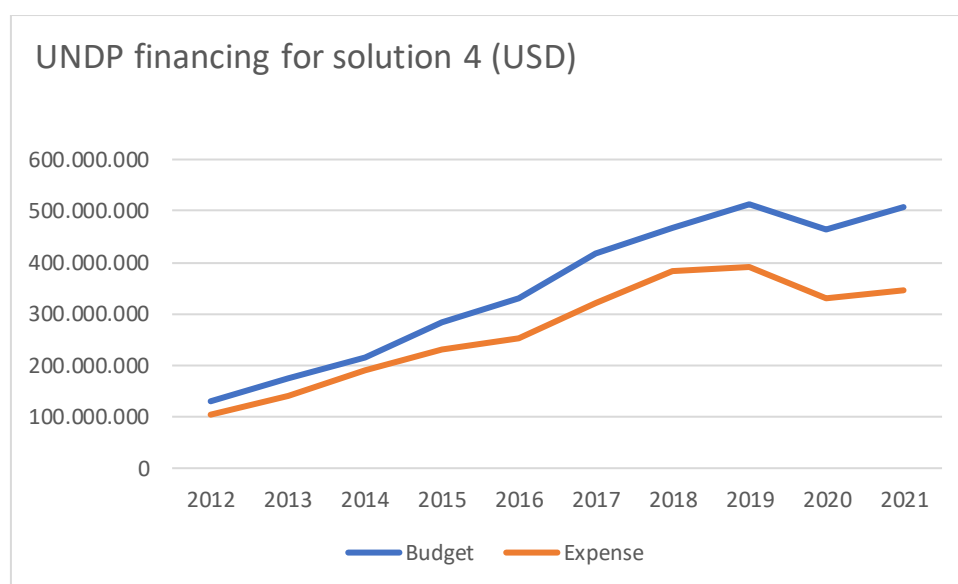

Figure 8 - UNDP financing for solution 4

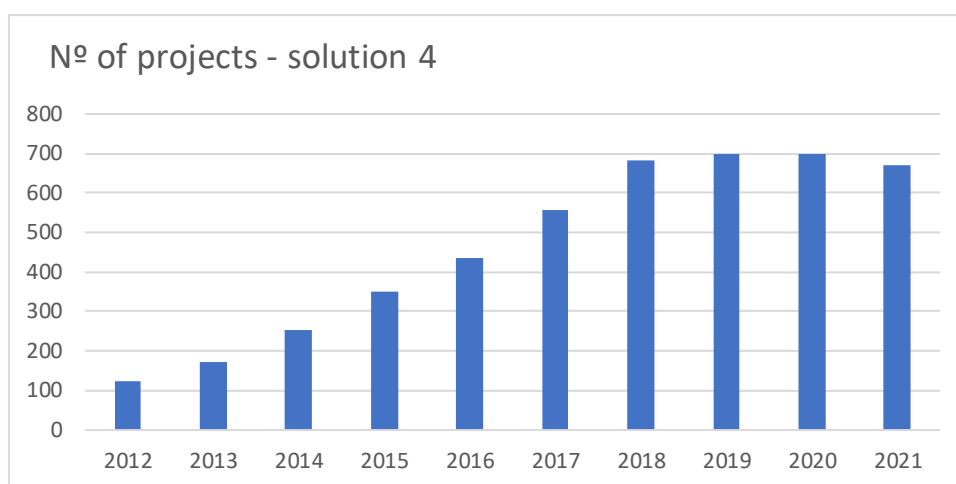Source: Author based on information by the UNDP Transparency portal, 2022.

Figure 9 – Number of solution 4 projects over the years.

Source: Author based on information by the UNDP Transparency portal, 2022

Now let us try to give some colors to what these "Anthropocenic solution" projects may look like. Below in the Figure 9 is an automatically generated table containing the highest-budget projects belonging to solution 4 active in 2022 from the UNDP project repository:

ID	Project Title	Country Office / Operating Unit	Budget	Expense
00090372	GEF-SGP Operational Phase 6	Bureau Policy & Prog Support	$19.61M	$5.97M
00077399	Increasing Access to Water in Host-Communities	Lebanon	$18.17M	$15.25M
00128680	Réponse au COVID-19 (EU)	Algeria	$13.31M	$16.97M
00106358	Biodiversity Finance Initiative (BIOFIN) Phase II	Bureau Policy & Prog Support	$12.64M	$6.48M
00102590	Scaling-up of GLOF Risk Reduction in North Pakistan	Pakistan	$12.46M	$3.92M
00144313	Fortalecimiento Institucional Ministerio de Educación	Dominican Republic	$10.05M	$180077
00100778	Green Climate Fund	Ecuador	$9.08M	$6.19M
00112383	Resiliencia climática en la Mojana - Clima y Vida	Colombia	$8.67M	$2.78M
00145407	Política Ambiental PBA	Argentina	$8.24M	$0
00118273	Pagos Basados en Resultados REDD+ de Paraguay	Paraguay	$8.13M	$491895

Figure 9 - Top 10 Solution 4 projects

Source: UNDP, n.d.

I will exemplify in more detail with the highest-budgeted project, the Small Grants Programme, a partnership with the Global Environmental Fund (GEF), with several other donor agencies[13], which has actually existed in several countries for over 30 years and is now going into its 6th phase. The program distributes grants to local civil society organizations that work with communities on innovative solutions:

> […] is a country-driven and effective delivery mechanism of funds to poor and vulnerable communities enabling them to transform global environment policies into concrete local actions and vice versa through provision of lessons and knowledge from local projects to policy makers. SGP supports innovative piloting and demonstration of new methods and models at local level with scaling up, replication and mainstreaming of successes and lessons learned as eventual end goals. This project will also mainstream the generation of global environmental benefits into local development practice by providing financial support to communities to carry out innovative projects in line with the strategic priorities of the GEF as well as local sustainable development objectives. Baseline development activities for GEF-financed initiatives that *generate global environmental benefits, as well as local development benefits*, will be funded by donors and other partners (UNDP, 2011, p.5, emphasis added).

In the description, we can see the boundary-blurring the Anthropocene promotes: the local is the global and the global is the local. The SGP's anniversary page describes the program's creation in 1992 as "a response to the call for 'thinking globally, acting locally'" (UNDP, 2022). It also involves communities as a very central aspect. Its current objectives on its 6th run are related to: climate change; international waters; chemicals; capacity development; livelihoods and gender. See below the complete set of objectives (UNDP, 2011):

a) Objective 1: Improve sustainability of protected areas and indigenous and community conservation areas through community-based actions;
b) Objective 2: Mainstream biodiversity conservation and sustainable use into production landscapes, seascapes and sectors through community initiatives and actions;
c) Objective 3: Promote the demonstration, development and transfer of low carbon technologies at the community level;
d) Objective 4: Promote and support energy efficient, low carbon transport at the community level;

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[13] Government of Switzerland; United Nations Development Programme; United Nations Environment Programme; Australian Agency for International Development (AusAid); Government of Germany; Global Environment Fund Truste.

e) Objective 5: Support the conservation and enhancement of carbon stocks through sustainable management and climate proofing of land use, land use change and forestry (LULUCF);

f) Objective 6: Promote community based adaptation to climate change;

g) Objective 7: Support community based emergency response and recovery;

h) Objective 8: Maintain or improve flow of agro-ecosystem and forest ecosystem services to sustain livelihoods of local communities;

i) Objective 9: Reduce pressures at community level from competing land uses (in the wider landscapes);

j) Objective 10: Support transboundary water body management with community-based initiatives;

k) Objective 11: Promote and support phase out of POPs and chemicals of global concern at;

l) Objective 13: Enhance and strengthen capacities of CSOs (particularly community-based organizations and those of indigenous peoples) to engage in consultative processes, apply knowledge management to ensure adequate information flows, implement convention guidelines, and monitor and evaluate environmental impacts and trends;

m) Objective 14: SGP seeks to improve livelihoods through increasing local benefits generated from environmental resources, and mainstream gender considerations in community-based environmental initiatives.

I would like to emphasize a few points: i) the cross-sector nature of objectives, involving the environment, gender equality, livelihoods etc.; ii) the emphasis on community instead of individuals; iii) the combination of mitigation and adaptation efforts which I had mentioned in the last section.

One output of the programme, for example, is the project *'Support to indigenous peoples' and community conserved areas and territories (ICCAs) through the GEF Small Grants Programme*, created over 20 years after the beginning of the program in 2014 and managed through the ICCA fund. The term ICCA refers to the following meaning:

> A close association is often found between a specific indigenous people or local community and a specific territory, area, or body of natural resources. When such an association is combined with effective local governance and conservation of nature, we speak of an "ICCA". ICCA sounds like an acronym, but it is not. It is an abbreviation for "territories and areas conserved by indigenous peoples and local communities" or "territories of life. (ICCA Consortium, N.d.)

Therefore, an ICCA is a territory in which indigenous or other traditional peoples hold a special relationship with the land, and conduct government practices that contribute to its conservation and to community wellbeing.

This collaboration of the SGPs to ICCAS:

> […] is at work in at least 26 countries around the globe. The initiative acts at as an umbrella for coherent projects by multiple partners and is designed to improve recognition, support, and effectiveness of ICCAs by enhancing capacities at many

levels. In this way, it supports the diversity, quality, and vitality of governance of the global network of "protected areas and other effective area-based conservation measures" (…). The ICCA Consortium provides technical assistance concerning ICCAs to all the partners in the initiative" (ICCA Consortium, N.d.).

This project notoriously involves the three aspects I emphasized above being markedly cross-sector, community based and based in a combination of mitigation and adaptation. Looking closely, we see the prioritization of indigenous communities; the attempt to foment local solutions, and the attempt to foment autonomy since the grant comes as support and not knowledge transfer. We also see that, although the nature-based solutions category is recent, it has not inaugurated a new tendency, as the GEF has existed since 92. However, the state of the debate can and does influence the shapes of strategic priorities, for example, as is seen in the significant changes of the UNDP's strategic plans over the years.

Getting back to the question I have posited at the beginning of the chapter, namely, how could an Anthropocenic intervention look like, one possible conclusion is that the introduction of the Anthropocene in international development discussions has not necessarily created anything from scratch but has facilitated a revision and recontextualization of previous strategies of categorization and intervention.

We can observe the elements the Anthropocene discussion congregates in discussions and interventions happening way before it became a globalized concern, and there has been no magic change in pace or shape due to it. However, it allows for a specific framing of issues and a way of visualizing things that emphasize certain paths we want to walk towards, i.e., the combination of adaptation with mitigation, cross-sector attention to issues, and local-based solutions. It has also offered a theoretical justification and increased material support for these frameworks, allowing attention and resources to be directed towards issues often neglected by the mainstream, such as indigenous peoples as subjects of knowledge and their modes of living as a direct contestation of our own.

The Anthropocene category as framework might not bring any magical solutions, but it can help us understand better what has already been done right, what can be improved, and how we may invest in moving forwards. To further develop this claim, I will use a case study to map out HD interventions over the years as an illustration and facilitate a dialogue with the Anthropocene category.

4.3 Country case: India

India is one of the first countries the UNDP started to collaborate with and does to this day, serving as a laboratory for policy experimentation, thus making it a good place to observe evolution of development approaches and priorities adopted through time by the HDA's champion institution, UNDP. Thus, it is possible to understand how this history of collaboration has been taking shape and whether it converses or not with the Anthropocene debate.

At the Figure 11 below is possible see printing machines being prepared for printing new maps at the Centre of Survey Training and Map Making. The Government of India with UN Development Programme help is seeking to implement a comprehensive modernization programme within the Survey of India, the Government Department concerned with map-making and surveying. The specialized training programmes established at the Centre for Survey Training and Map Making at Hyderabad are part of that programme.
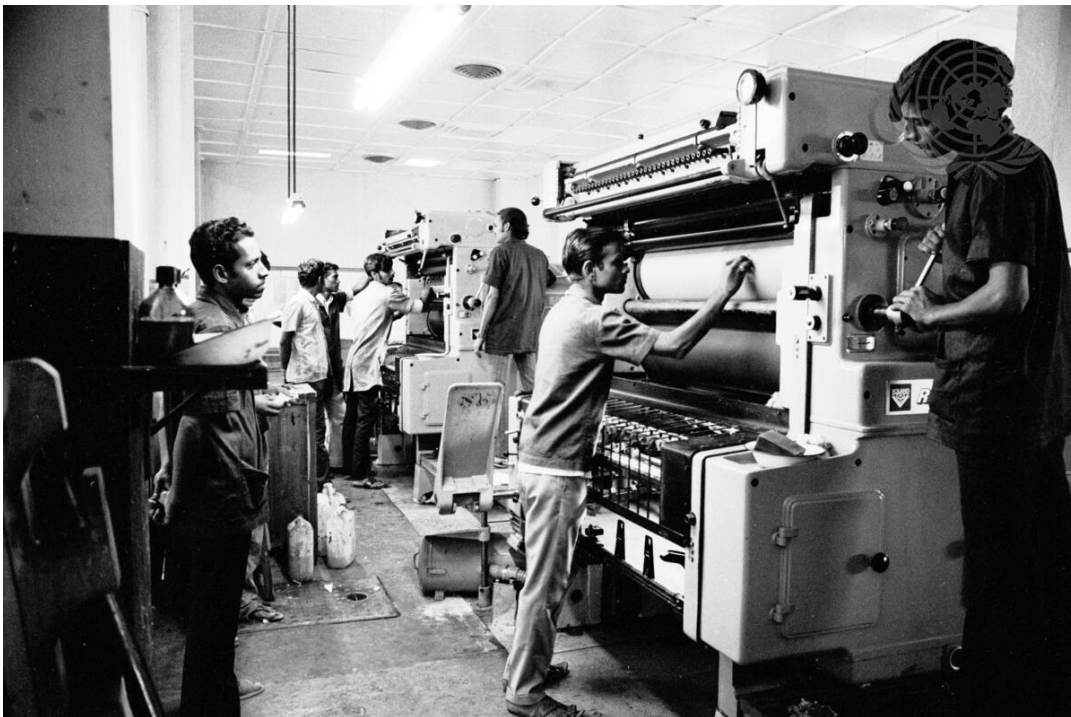

Figure 10 - Expansion of Training Facilities for Survey of India: The Government of India with UNDP

Source: UN (1974).

NDP was first established as such in 1966, after the UN Special Fund of assistance to developing countries merged with the Expanded Programme for

Technical Assistance. After that, the first project championed by the UNDP in India was technical support (research and training) to an institute of India's Oil and Natural Gas Corporation in 1966. According to the UNDP, "16 oil fields were discovered by ONGC during the course of this project" (UNDP India, 2016). Currently, the ONGC is self-entitled the "largest profit making company in India", "contributing around 71 per cent to Indian domestic production" (ONGC, N.d.). This reflects what we discussed last chapter regarding an initial moment in international development when the idea of *modernization* dominated the scene.

A continuity of that approach can be observed over the 1960's and 70's, in which most UNDP interventions were focused largely on access to technology and enhancing industrial capabilities[14].

It would be interesting to analyze what could be meant by "enhancing industrial capabilities" then (Larger scale? Less cost? Less environmental impact? In which order of priority?), but there is no sufficiently detailed data on these projects for us to draw a conclusive qualitative analysis. However, with the data we do have, it is already possible to observe a focus on production (industries) and assets, instead of people, something that changes with time as the Human Development Approach is created and starts to be advanced by the institution. The issue of *production* is of big concern, but it is initially treated mostly independently from people and communities (for example, through investment targeted to companies and industries in general, instead of individuals or, better yet, communities).

As an illustrative example, one of the images on the UN historical image bank shows coal miner workers in India around 1975 (exact date unknown, according to the UN), in which the caption read:

> The lifeline of many poor countries is the export of raw materials. If that line is to hold firm, these countries must have stable and equitable prices for the commodities they sell to the industrial world. The resources of land and sea, however, must not be exploited for nationalistic ends, but for the benefit of all mankind. Deep down in a coal mine in Ranchi coal miners are at work. India has most of the mineral resources required for industrial expansion. It has one of the largest high-grade iron ore reserves in the world as well as large deposits of coal" (UN, 1975).

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[14] I tabulated data from 85 interventions of the UNDP in India from 1966-2015, from a UNDP report on its history in the country (UNDP, 2016).

Figure 11 - Development of Resources: coal mine in India

Source: UN (1975)

The traditional idea of development, advanced in the modernization approach – implying that some countries might have been *behind* in a uniform and linear temporal line, which led to more sophisticated technology and production methods – is perceptible. In that sense, the institution provided the country with technological assets like a mainframe computer, a satellite facility to enable television broadcasting, and semi-conductor technology to optimize railway efficiency. Technical support was also offered in industrial areas like packaging to optimize production. Environmental impacts were not cited as a concern then and were not incorporated into interventions.

The protection of rights, which is immediately correlated with environmental damage, as is becoming ever more evident in the Anthropocene (as the latter may create, for example, health hazards, human displacement, gender inequality among others) was also not in the immediate scope of priority actions at that point in time.

It was 1983 when the first project explicitly concerned with nature and the environment emerged, aimed at wildlife preservation through building capacity and research in wildlife management. In 1984, the first project on mitigation of disaster risk appeared. It also involved providing access to technology and technical means,

with the goal of monitoring forest fires. It came out first as a pilot in two Indian districts, resulting in over 90% reduction of forest fires in selected areas and prompting the national government to develop a forest fire prevention scheme (BAHUGUNA, 1999).

In the 1990s it is already possible to see UNDP's investments in India being directed towards the aspects that are emphasized in Anthropocene discussions and nature-based approaches. There were still projects on industry improvement, like the 1992 national leather development programme, but the latter's focus was on providing knowledge and skills on leather-making for small artisans and clusters – something I would classify more as a project focused on people and their means for livelihoods rather than on the wellbeing of the industry itself (and of people as a consequence), as it was in the 60s, as UNDP assisted in areas like petroleum exploration and satellite technology for television broadcasting.

The year of 1994 saw a project on reduction in greenhouse gases "through a UNDP initiated biomethanation project that explored waste-to-energy processes to reduce ghgs" (UNDP, 2016, p.iv). Other previous projects like those on wildlife preservation and forest fire prevention, referred to incidents that could be either naturally occurring or caused by humans, but way smaller in scale. This 1994 project, in turn, reflects a newly arising preoccupation with ozone layer depleting and climate change through large-scale practices, affecting the whole of the planet through local actions. Projects on mitigation and adaptation for environmental events start to become more common, even as the world turns its attention to sustainable development, creating the SDGs and the 2030 agenda, which becomes ever-present as a consideration for development projects.

In 2021, the UNDP counted with 53 active projects in India, 8 of which are categorized in the "Nature-based solutions for a sustainable planet" solution, and the majority of which are fit into the "Keeping people out of poverty" solution 1, (while it is useful to remember that solutions can and frequently intersect with each other, not being exhausted by the main category in which they fit). For a brief overview, below at Figure 12, are the 10 main projects in the country in said year of 2021.

ID	Project Title	Country Office / Operating Unit	Budget	Expense
00098752	GAVI Phase II-Improving vaccination systems	India	$16.22M	$14.05M
00085200	Hydro chlorofluorocarbons phase out management plan (HPMP)	India	$12.12M	$11.85M
00107172	Improving Efficiency of Vaccination System in Multiple States	India	$3.42M	$3.3M
00096923	Plastic Waste Management Programme: A Partnership	India	$3.02M	$2.18M
00085889	Housing - Enhancing community resilience	India	$2.28M	$2.3M
00128824	Skill Dev & Enterprise Promotion-PROGRESS	India	$2.04M	$1.15M
00070193	Preparation of Third National Communication (TNC)	India	$1.77M	$1.65M
00091297	Securing livelihoods Himalayas	India	$1.69M	$1.87M
00075746	The Establishment and Operationalization of the Archipelagic and Island State Forum	India	$1.37M	$1.45M
00121500	COVID19-Supp in Second wave	India	$1.25M	$1.16M

Figure 12 - Top 10 UNDP projects in India

Source: UNDP Transparency Portal, n.d.

Most of this funding is going towards emergency measures apparently connected to COVID-19 (improving vaccination systems), and a relevant amount in environmental measures (waste management, HPMP phase out) – a remarkable difference from 1960. And, as an example of the cross-sectoriality we have been associated to Anthropocene arguments: the Securing livelihoods in the Himalayas project started in 2017 (going up to 2024), is also funded by the Global Environmental Fund and has as goals: "Securing livelihoods, conservation, sustainable use and restoration of high range Himalayan ecosystems" (UNDP, n.d.). The idea is to promote livelihoods that are beneficial to the environment, improving use of resources by focusing on strengthening capacities and providing resources for pasture and forest management, generating livelihoods in a sustainable way.

Among the achievements are other correlated indicators like youth and women empowerment through focusing on strengthening their capacities and stimulating participation. This type of cross-sectoriality can be achieved in a project such as this by taking into account the specific needs and contexts of separate sectors of the population of a certain place (for example, what do the youth, the

women, the persons with disabilities etc. suffer and need in a specific context?) and targeting project interventions at them (for example, creating capacity strengthening and other types of interventions specific for these groups), giving them tools to participate and learn in the process. This happens while wildlife is minded for, as well as conservation in relation to the use of natural resources.

> Snow Leopard Population Assessment in India (SPAI) launched for accurate estimate the Snow Leopard population; Trained 2,000 frontline forest staff and community members in monitoring of wild habitats; Augmented skills of 1,000 women and youth in areas like adventure and nature-based tourism; Inspiring innovation and youth participation through SECURE Himalaya Hackathon to develop technology-based solutions for conservation; Developed a Virtual Reality experience to highlight the importance of snow leopards among the general public and encourage policy initiatives aimed at conservation of the critically endangered species. (UNDP, n.d.)

India's case gives us a small overview of the shifts in the scope of predominant projects (some more subtle, others less). Slowly, we can see the creation of initiatives that are mixing targets to include both human wellbeing and environmental concerns, making them work together as one thing, like in the Himalayas preservation project. Other initiatives like the phase-out of harmful industrial inputs evidently also improve human wellbeing as planetary preservation is fundamental to preserve the conditions for (prosperous) human life. However, in such cases human wellbeing comes as a *posterior consequence* of environmental preservation, while "nature-based solutions" frequently attempt to do these things *simultaneously*, utilizing one thing to optimize the other – cross-sectoriality.

5

5 Good practices: acknowledging the Anthropocene era in development agendas.

5.1 Fast-pacing change

What initially caught my eye as a research theme was the incorporation of the Anthropocene concept (a somewhat recent academic buzzword) in such a high visibility platform as the is the HDR, and I wanted to investigate the context of this appearance, snowballing other relevant materials around the HDR as a gravity center. However, during the course of the research, as I collected relevant material, it started to become clear to me that were a few other agencies (out of which I selected the GIZ and BMUB) already engaging in the exercise of acknowledging the Anthropocene era as a starting point for their discussions and interventions in development even before this HDR was published.

That is why I decided to create a chapter to discuss this parallel context. This material can be a source of inspiration to build paths for development that are ever more conscious of the geological, social, and political era we inhabit. In this chapter, I will discuss documents emitted by BMUB and the GIZ, which feature discussions about the Anthropocene discussions quite seriously, in order to understand how they are operationalizing or creating plans based on the issues we have been discussing.

This choice does not deny the importance of many types of organizations advancing "anthropocenic" principles like cross-sectoriality, interdisciplinarity, and interconnectivity in multiple practices worldwide. However, these agencies caught my attention not because they discovered the wheel but because they are developing their programming with strong, explicit references to conceptual issues related to the Anthropocene era. In that regard, they allow us to visualize more clearly how these concepts and ideas explored in Chapter 1 are being (and can be) systematized in policy and programs. It is also important to notice that, the fact that both institutions are German, may reveal the relation between the advancement of human development in contexts and networks of influence and growth and also point to the possibility of a context of social and national interests at play in the development of these approaches, which we will not be able to explore.

Noticeably, both organizations have as pillars the ideas of *change* and *transformation* and highlight the necessity of *cross-sectoriality* and *interdependence*, as ways of accounting for the connectedness of social, environmental, and economic issues, which must be addressed in that same manner. We begin by giving a closer look to the BMUB, and then dedicate the next section to the GIZ.

BMUB is Germany's Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety – not precisely a development agency, one working strongly in development to achieve its purposes. We will explore BMUB's 2030 Program published in 2016, which features a strong emphasis on the need to make change happen faster, bringing their purposes and plans in that sense. The next section will read the GIZ's guidance for transformation, which provides a series of orientations to achieve transformation in projects.

In BMUB's Program, the agency starts on the premise that "environmental policy must become the engine of transformation, towards a social-ecological market economy and a sustainable society" (BMUB, 2016, p.12). Because of this emphatic connection between societal wellbeing and the economy, a lot of their plans and actions are contained within the arena of development, overcoming the idea that the environment can be treated in isolation in relation to these other

elements of collective life. The plan systematizes a list of multidimensional and cross-sectoral policy actions for transformation, which you can see in the flux gram of the Figure 13 below:
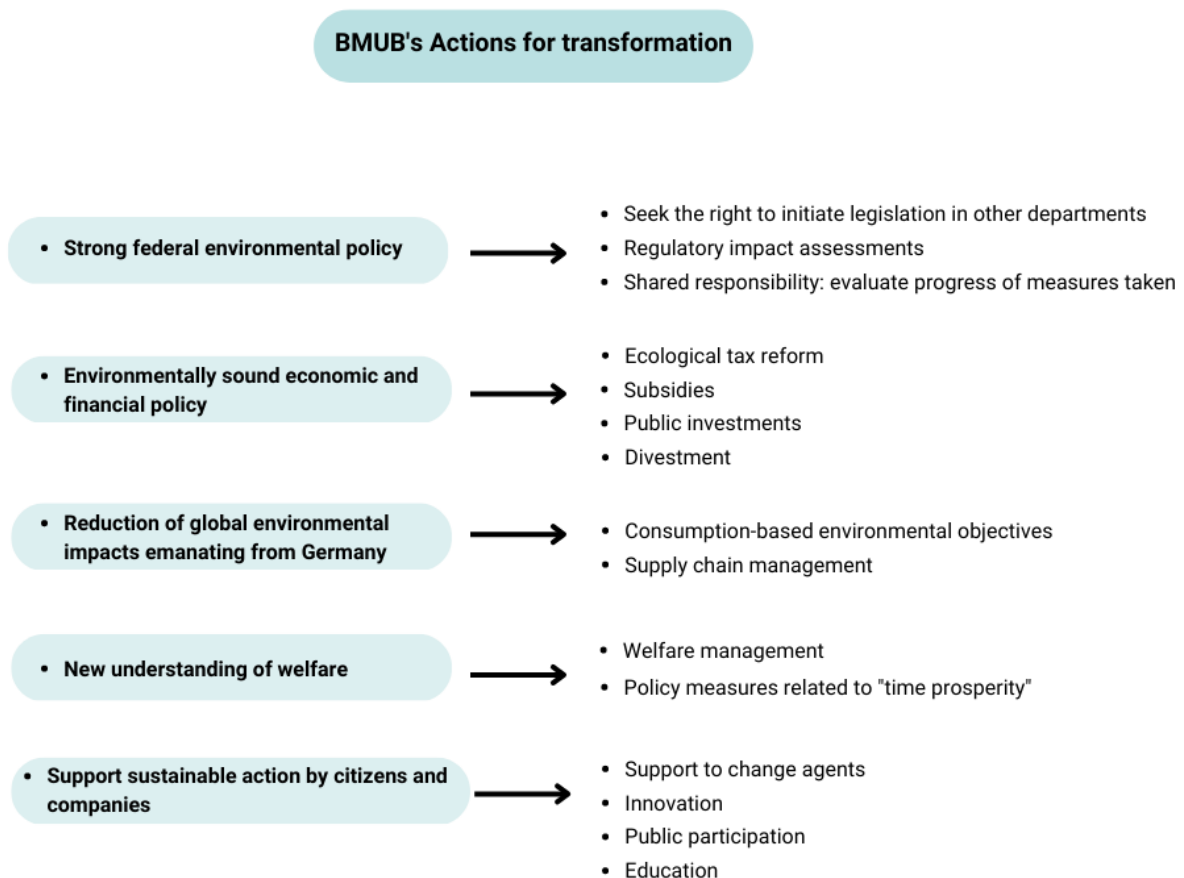

Figure 13 – BMUB's" actions for transformation" from 2030 programme
Source: Author, based on BMUB (2020*)*

These cross-sectoral visions aim at influencing and assisting other governmental sectors in Germany, local groups and individuals, other national governments and private actors to create and adopt better alternatives for sustainability and equality. BMUB puts forth their commitment to advance actions in the sense of:

a) advocating for including environmental impact analysis and legislation in other sectors of government not necessarily attached to the environment;

b) advocating for economic measures to stimulate investment in environmentally sound alternatives, also decelerating unsound practices;

c) stimulating internal revision of consumption patterns and acting in the sense of creating globally sound patterns;

d) Promoting national dialogue on the visions of welfare the country holds and what may be meant by living well, which is fundamentally connected to fomenting an idea of development that is not based on uncontrolled consumption and careless luxuries;

e) supporting local groups and initiatives that are attempting to promote innovative local solutions, giving them voice and resources to achieve change.

In this document, BMUB sets out its commitment to:

> […] profound change, to a fundamental transformation towards sustainability as a means of combating global poverty, safeguarding peace and human rights, and meeting the needs and ensuring the long-term survival of humanity within ecological limits. *Technological solutions and "classic" environmental policy alone do not go far enough.* Progress on this much-needed transition must happen now – also in Germany. The Integrated Environmental Programme 2030 aims to support this process" (BMUB, 2016, p.12, emphasis added).

The acknowledgment that we are inhabiting this era, which we agreed on calling the Anthropocene, is the main justification for their proposed transformations. BMUB merges this with another important acknowledgment: that as a "developed" country, Germany is particularly responsible for bringing about the Anthropocene. This explicit acknowledgment of responsibility for deep international issues, which we may read as accountability, sets the BMUB apart from other organizations.

It is common to have accountability as an aspect of programs – traditionally, implementers are accountable to donors in relation to the activities conducted, financial management etc. This accountability may be developed through several means the actors use to demonstrate that guidelines are being followed and results delivered. More recently, there has been growing attention to the need to have accountability *towards* affected populations as well. This is what creates a less hierarchical and more mutual relationship between agencies and affected populations, ensuring these relationships are not linear (top-bottom) and that

agencies are also held responsible for their actions. For that, programs need to have mechanisms in place to ensure they collect feedback, have transparency and address complaints.

This is a beautiful idea and necessary step that has not been progressing well enough or at all, depending on the sector (BROUDER, 2017; TAYLOR et al., 2015). However, I read certain BMUB affirmations in the light of another type of accountability. Not as an accountability formalized through concrete programmatic mechanisms, but a broad accountability for important historical and social processes. As we have argued in previous chapters, the Anthropocene is marked by profound inequalities not only on access to resources necessary for life: the high HDIs of some countries are directly derivative from historical relationships of exploitation which benefitted one party while seriously aggravating the life conditions of others.

This is an interesting dialogue with the dependency theory we read on Chapter 3: the acknowledgment of geographical inequality between differently developed countries. This acknowledgement, emitted by BMUB, and their accountability towards these historical processes, comes in the context of the Anthropocene: this era blurs borders, the consequences of local contexts started to reverberate globally, and the consequences of exploitation have been reaching everyone. When the damages caused by harmful large-scale industries were contained only within third world countries, it was not a pressing need to address such damages in first world foreign policy.

However, as climate change and other important events like a global pandemic had worldwide effects, it became an imperative to address problems globally. Even then, the act of naming actors and recognizing responsibility struck me as a very important step into working on solutions.

> […] human-induced changes in the global environment threaten to transgress Earth's carrying capacity. Germany is partially responsible for this: through our lifestyles, consumption and globally interconnected economy, our society's consumption of the world's natural resources is excessive and cannot possibly serve as a model for the rest of the world. Strawberry growing in Andalusia depletes local water resources; garment manufacturing in Bangladesh can release toxic substances into the environment; the electronics industry in China produces greenhouse gas emissions – and all of this is related to our prosperity. This "relocation" of environmental impacts to other countries puts a question mark over the positive environmental progress achieved at the domestic level and has the potential to cause crises in the affected regions, whose impacts will rebound on Germany" (BMUB, 2016, p.11).

Naming oneself as a bearer of responsibility is not very commonly seen in foreign policy and should be an example for advancing change. Maria Aparecida Silva Bento is a Brazilian psychologist who wrote a book on what she calls the "narcissistic pact of whiteness" – a deep societal denial of a history of slavery and ongoing racism that benefit white people, hindering the ability to work through these wounds, recognize who created hurt and who was hurt, attempt to repair the damage that was caused and continues to be caused to a large segment of the population, and create something better.

Here I am not discussing race relations, but Bento's conception of acknowledgment was useful for my reading of this dislocation of the developmental gaze: from the third-world subject, who claims for development and sheds light on the responsibility Europe itself held in making our world, now correlated to the countering of these damages. Taking responsibility requires a previous acknowledgment of one's responsibility concerning the situation at hand.

In Bento's words:

> I believe it is important to recognize and debate these and other domination relations to create conditions for the advancement towards another type of society and other civilizational pacts. Relations of domination of gender, race, class, origin, among others, hold a lot of similarity in the way they are built and perpetrated through pacts, almost always non explicit. In this sense, I focused my attention on whiteness and the narcisic pacts they keep. In that sense, this is about comprehending the perspective that emerges when we dislocate our look over racialized "others", considered "ethnic groups", or "identity movements" towards the center, where the white was placed, the "universal", and from where a notion of "race" was built" (Bento, 2022, p.15, translated by the author).

Societies need to advance in recognizing actors' responsibilities in damaging in order to work through it. As claimed throughout this dissertation, the Anthropocene is the temporal marker prompting this discussion and thus calls out for acknowledgement of where we are at. This also connects to the 2020 HDR's discussion on individual and collective agency, the role of society, norms and actions: although the HDR introduces the conception but does not make any bold statements as to say, "this or the other country or region is responsible for such and such factors", the naming acts of acknowledgement, so important for moving forwards.

In that same sense, another interesting point brought about by BMUB's program is the compromise to introduce "time prosperity" into the public debate.

With that they mean a discussion on what time may mean for people and the society – what is a prosperous life?

> The BMUB will examine what a concept for environmentally aware lifestyles with high "time prosperity" might look like. For this purpose, a societal debate should first be initiated on the importance of time for individual quality of life, so that possible objectives and indicators, approaches, strategies and instruments of "time policy" can subsequently be identified" (BMUB, 2016, p.15).

This also caught my attention because the experience and formalization of time are also fundamental for ontological discussions we see on indigenous modes of life. The fast-paced, industrial-production temporality we live in many parts of the world, especially big cities, is a product of Western modern cosmology and its obsession with productivity and surplus production.

This is a complex discussion, but Baudrillard wrote a comprehensive summary of this logic in "Modernity", published in 1987:

> The prodigious expansion, particularly for the last 100 years, of science and technique, the rational and systematic development of the means of production, their management and organization, marks modernity as the era of productivity: an intensification of human labour and of human domination over nature, both reduced to the status of productive forces and to the schemas of maximal output (BAUDRILLARD, 1987, p.66).

Moreover, this process holds a direct relationship to time as well illustrated by Baudrillard's concepts of "productivist finality" and how it relies on "the chronometric cutting up of time, the forward-looking and operational imperatives which remain the fundamental coordinates of the modern ethic of the productive society" (Ibid.). Technology has always been a part of this process and we have come a long way in its trajectory since Baudrillard's own writings: new technological tools are constantly absorbed in this logic and used to make processes, production, and lives run even faster, also taking part in the construction of our worldviews and constitutions as subjects (DAVIS, 2013).

Speed is equated with a linear temporality that will lead to the future. Not coincidentally, that is the ethical project we have seen in the modernist approach to development, which implied that the path to development involved passing on better technology, knowledge and more efficient machines to those "behind" in the development process towards a common, linear future. Franco Berardi examines the Italian Futurism around the early 20th century as exemplary of an accelerationist

logic which was combined with a utopianism that dreamt of a highly technological and fast future of "optimal" production:

> The myth of speed sustained the whole edifice of the imaginary of modernity, and the reality of speed played a crucial role in the history of capital, whose development is based on the acceleration of labor time. Productivity in fact is the growth factor of the accretion of relative surplus value determined by the speed of the productive gesture and by the intensification of its rhythm" (BERARDI, 2011, p.15).

However, the Anthropocene is showing us that speed is leading us literally to nowhere, as extinction looms as a threat in collective imaginaries. The same fast production that was a utopian dream of high consumption is degrading things to the point of a common existential threat. Things need to go slower and be more mindful.

With these reflections, I do not mean to equate "Modernity" with a solid object, time period, geographic space or all-encompassing force; it is, instead, a type of ethics, and, as such, it participates in the constitution of subjects, but not in a deterministic way. That is precisely why so many authors reflect on indigenous ontologies as another type of temporal and/or productive ethics: production and work can exist not to generate capitalist surplus, but to ensure the maintenance of life and of religious, social and cultural relations.

Depending on the traditional people in question, there can be several different types of relationships to time. Time may be felt and envisioned not in this linear, progressive way, associated with surplus productivity, but with life as a holistic totality. Take, for instance, the following example from an American indigenous people:

> Plants, because they have their own life cycles, taught Indians about time. George Will and George Hyde, in their book Corn Among the Indians of the Upper Missouri, point out that it was the practice of the agricultural tribes to plant their corn, hoe it a few times, and then depart for the western mountains on their summer buffalo hunt. When a certain plant in the west began to change its color, the hunters knew it was time to return home to harvest their corn. This knowledge about corn and the manner in which its growth cycle correlated with that of the plants of the mountains some 500 miles away was very sophisticated and involved the idea of time as something more complex than mere chronology. Time was also growth of all beings toward maturity (DELORIA; WILDCAT, 2001, p.25).

This is not about a perception that is more or less "true" than the other, but fundamentally different and points to another experience of the same object: time. Thus, a growing interesting in incorporating academic terms like "epistemologies", "ontologies", "different worlds" etc. in actual political practice. It is also important

not to fetishize indigenous lives. This is not about one life form that is 'purer' and 'previous' to another; there can be ways to create reciprocal learning without perpetrating cultural fetish.

There can be positive incorporations of indigenous teachings in Western political apparatuses without incurring in cultural fetish. For example, there are already some countries proposing 4 workday weeks. The New Economics Foundation explained this claim as follows:

> There is nothing natural or inevitable about what's considered 'normal' today. Time, like work, has become commodified – a recent legacy of industrial capitalism. Yet the logic of industrial time is out of step with today's conditions, where instant communications and mobile technologies bring new risks and pressures, as well as opportunities. The challenge is to break the power of the old industrial clock without adding new pressures, and to free up time to live sustainable lives (COOTE, 2010, p.2).

Taking this into consideration, I see BMUB's idea of incorporating time debate into their policy plan, although still preliminary, as an interesting movement towards a more radical incorporation of ontological concerns into policy-oriented discourse.

5.2 Systematizing transformation

GIZ's transformative approach is built in direct dialogue with the concept of *planetary boundaries*, derivative from the Anthropocene theory we discussed in Chapter 2. Their documents also work around many shared concepts, such as change, transformation, complexity and agency, many of which we have been observing and mentioning on previous chapters. The organization places a remarkable urgency into the achievement of the SDGs but criticizes the pace of these "incremental changes," which have not been enough to avoid and counter environmental damages in a manner that allows humanity to not be at risk.

BMUB's program, which we read last section, establishes large commitments and areas for action for the institution, bringing up the importance of connectivity between local and global, which creates the need to collectivize efforts beyond the nation. This GIZ document, on the other hand, is a *guidance*, offering a more detailed methodological pathway establishing which steps to take in each action, also involving theoretical discussions on *why* to follow such steps. In my

opinion, the main highlight on the GIZ's guidance is the emphasis on systematizing and operationalizing ways to create disruptive and transformative change that falls goes much further than the slow temporality of incremental change.

Both organizations seem to agree that the need for more significant change has become evident, as predominant approaches so far have failed in preserving the future of the planet and our species – an absolute imperative, irrespective of which population segment one may belong to. It is in the effort of theorizing and systematizing steps towards this that organizations like the GIZ and BMUB have been mobilizing some central concepts evident in Anthropocene literature, like scale and change.

In case of the GIZ, transformation is the idea at the heart of its plans insofar as their transformative approach seeks to accelerate the achievement of transformation towards the SDGs. These concepts are not taken lightly and go through a quite systematic scrutiny, pondering multiple definitions of terms and their usability.

Here I will not reproduce the whole of these discussions, but will focus on highlighting the operationalization process they arrived at after their theoretical considerations, i.e., what makes a project transformational? What type of change does it achieve? How do we design and measure these efforts? Etc.

It is important to mention that GIZ establishes a difference between the usual deployments of the Sustainable Development Goals (and the subsequent 2030 Agenda) and GIZ's transformative approach. The latter takes into account the need to operate within planetary boundaries and operates *in dialogue with* the SDGs (i.e., the transformative approach can be applied in a project for it to work towards one or more SDGs). Transformative change is defined as "the most radical and disruptive form of change", and it is "in high demand if current (sub)systems or all dimensions of sustainable development at once are likely to not deliver sustainable development anymore" (GIZ, 2020, p.54).

While there is room for non-transformative work towards the SDGs that achieves incremental change, they are adamant about the emphasis on transformative change:

> Incremental change and reforms in relevant socio-technical and economic systems, consumption patterns or policy are unlikely to deliver the amount of emission reductions in time for a sustained 'safe operating space' for humanity or carbon neutrality, respectively. Therefore, an increasing number of actors demand radical

system change (transformation) for a number of the relevant systems like energy, traffic, agriculture and food consumption. The recent systems are to be replaced by new ones (e.g. renewable energy system) for the sake of carbon neutral societies while trying to create as many social co-benefits as possible (GIZ, 2020, p.54).

The approach is based on seven design principles which should be contained in program design. I will also not enter into too much detail over the definition of each principle, as they are long and detailed, but in general lines, they go as follows:

a) Paradigm-shiftAbility: Transformative approaches should promote change in paradigms, not merely of a given problem at hand. For example: "Interventions may include all kinds of changes, e.g., the promotion of energy efficiency while questioning the fossil fuel based energy regime. However, if these interventions only promote energy efficiency based on fossil fuels, they would be called incremental change interventions and not transformative for the energy regime." (GIZ, 2020, p.47).

b) ScalAbility: Since we are dealing with high levels of complexity in transformative interventions, they "(…) should be able to navigate complexity and permanently adapt to and work with unforeseen changes". (GIZ, 2020, p. 45).

c) SustainAbility and resilienceAbility: Taking into consideration that the transformative approach aims to change paradigms, interventions should also attempt to make these changes stable and resistant, so they can sustain themselves even after a punctual intervention ends, while the changes it creates lives on.

d) MultidimensionAbility: Transformative approaches should be cross-sectoral and address multiple issue areas (examples given by the GIZ are the areas of policy, technology, markets and societal norms) (GIZ, 2020, p.48).

e) Social-changeAbility: Approaches also need to involve social change, which is needed to create resilience in sustainability in interventions (for example, society needs to accept and incorporate new technology or ideas proposed). However, social change should not be stimulated in a linear or top-bottom approach (knowledge-to-action); it needs to be approached

holistically, at different levels and with different strategies (examples given in the document are communication, education, co-production, among others) (GIZ, 2020, p.48).

f) ComplexAbility and adaptability: Also given the high level of complexity of current problems and transformative responses, approaches have to be open to this complexity through analyzing and understanding what level of complexity is involved in a given context, thus systematizing a response based on that, and be able to continuously adapt itself to the conditions at hand. For that, the GIZ establishes categories for different levels of complexity and types of change. A project should be clear on which levels and categories the situation fits in and is being aimed at when building a transformative intervention.

g) ReciprocAbility: This is the dimension that deals with the power structures involved in program design and implementation. Relationships should not be linear – for example, one donor dictating single-handedly terms and conditions, "passing" its benefits to a passive recipient who alone is accountable to the former. The transformative approach should be careful to consider interlinked relationships and ensure reciprocity, which is also necessary to ensure the resilience and sustainability of an intervention. This principle can be applied in decision-making processes, inclusive project design, establishing mutual information flows and mutual accountability mechanisms, etc.

As you can see, this is an extremely complex guidance. It is made viable by careful consideration regarding concept definitions and category establishment. Definitions and categories (like those of complexity levels and types of change) are a powerful instrument to operationalize the proposal of creating transformational change. When you aim to create not just marginal improvement, but disruption and transformation, how can you deal with the high complexity of scenarios? And how does change features in this? Categories are how you build the responses to these questions.

In relation to the levels of complexity: an actor may envision a scenario or a problem as "simple", demanding linear solutions, with simple indicators and

processes. They can also envision worlds as "complicated", "chaotic" and "complex" scenarios (GIZ, 2020, p.33). I will not define each of those, but in many of those cases, linear responses are applied and achieve *some* result, in relation to some independent variable, but will not achieve a transformative result that reaches the systems this variable is inserted into. For that, a given scenario must be envisioned as complex or super complex.

The GIZ bets on transformation through their 'TransformAbility' concept and indicator, by putting forth the need to acknowledge complexity, be adaptable and observant of things, probing, sensing and analyzing scenarios, taking into account multiple dimensions, not just in a line but in networks.

Each of these seven design principles is inserted into the design and evaluation grid for projects. Each variable contains one or more questions that should be duly answered to determine the project's fitness into said criteria (i.e., indicator). Those answers can be either descriptive, yes/no, numbered etc (GIZ, 2020, p. 50-53).

For example, for Paradigm-shiftAbility, the question/indicator is "Does the project question current systems, paradigms, regimes or major narratives through its goal frame, indicators and activities, offering fundamentally different ones?", and the answer must be a yes or no followed by a description. For the variable of Multidimension-Ability, one of the indicators is "To what extent can various form of knowledge (e.g., scientific, local, traditional, tacit, regulatory knowledge or goal, transformation and system knowledge) be integrated?", with purely descriptive answers.

This method includes a level of subjectivity that depends on the observations and perceptions of a series of project designers and evaluators while remaining very systematized and raising the need for these important principles to be reflected upon and justified in order to carry on with a project. Creating a common ground of understanding regarding all the concepts and variables used is also absolutely fundamental to ensure all involved in a project are speaking the same language and sharing the same goals, which may also be why the guidance contains long theoretical discussions with attention to definition. This systematization of subjective issues is the bridge through which complex conceptual discussions can be translated into operational processes and local action.

It is also relevant to observe that GIZ's interventions locate themselves *in relation* to the environment and that, at the same time, understanding, acting and working with the environment involves many human dimensions. The project design directives include production, consumption and technical innovation through, for example, science, technology and infrastructure.
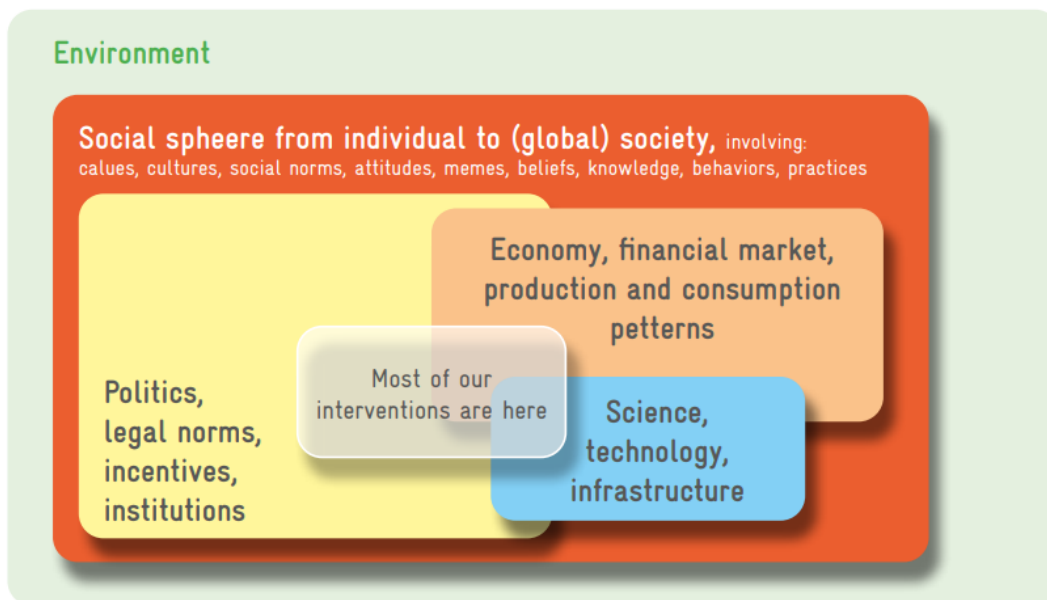

Figure 14 - Dimensions of transformations

Source: GIZ (2020, p.22)

The key to their approach to transformation is something we have been discussing over and over: *interconnectedness between issue areas and cross-sector responses.* According to the GIZ's guidance for programming:

> Approaches to transformation should foster synergies and prevent trade-offs between the Sustainable Development Goals or on a broader level the three dimensions of sustainability – social, economic, environmental – in which change could take place. This is called the integrated approach (2) and will at the same time broaden transformative success (compare multidimensionAbility). In a similar vein, development should further be driven by multi-stakeholder approaches and joint responsibility (3) and accountability (4) of all Actors and Sectors working together to promote change in line with the 2030 Agenda. Leaving no one behind (5) and reducing inequality is not just crucial for development in general but will also contribute to 'Just Transitions' (2020, p.54).

Interconnectedness is the main driver of complexity in situations, and it is also attached to the problem of agency. Agency comes from individuals, crosses through institutions, communities, and political entities like Nation-states. Whose responsibility is it to change the world and how to enact such change? With the

growing level of complexity of human arrangements in ever larger chain-linked relations inherent to the globalization process, this causes a series of confusions, especially now, in an era in which the local connects itself to the degradation of the global and the degradation of the present implies the invalidation of the future.

How may the Anthropocene, an era of interconnectedness between cause-reaction, affect our notion of agency? How does it destabilize our notions of who is able to do what, and who bears responsibility? These are philosophical discussions I would love to get into in this thesis if I had the time. However, I find it relevant to highlight this here, as this is a recurring subject in development materials that start to acknowledge the Anthropocene era as an imperative for causing change. The HDR acknowledges several levels of agency, both BMUB and the GIZ incorporate this, especially in their "social change" dimension.

You can see below a GIZ graphic comparing "traditional" approaches (which envision the world as a "complicated" scenario paradigm) and transformative approaches (which deal with the "complex" paradigm to envision world scenario):

	Conventional aid thinking (complicated world)	New perspectives (complex world)
Systems and problems	System and problems are closed, static, linear systems; reductionist (parts would reveal the whole)	Systems are open, dynamic, non-linear systems far from equilibrium. Macro patterns emerge from micro behaviors and interactions
Human agency	Individuals use rational deduction; behavior and action can be specified from top-down; perfect knowledge of future outcomes is possible	Heterogeneous agents that mix deductive/inductive decisions, are subject to errors and biases, and which learn, adapt, self-organize and co-evolve over time
Social structures	Formal relations between actors are most important; relationships are ahistorical and can be designed; actors can be treated as independent and atomized	Interpersonal relationships and interactions matter in form of culture, ties, values, beliefs, peers. Informal matters, relationships are path dependent and historical
The nature of change	Change is direct result of actions; proportional, additive and predictable; can hold things constant; simple cause and effect	Change is non-linear, unpredictable, with phases of transitions

Figure 15 - Comparison of the "complicated world" change paradigm with "complex world" change paradigm

Source: GIZ (2020, p.35).

Agency must be considered: while, at the same time, one individual's change of habit is not enough to create transformative change, several individuals' change of habit does, whether these individuals do it as a community, with internal

agreements, or as individuals who happen to align their actions. Collective and communal actions do indeed make a difference that reverberates in unpredictable ways. In that sense, one single individual may have some degree of responsibility for our futures as a whole.

However, it is not possible anymore to deviate from the fact that large-scale production is the thing that accelerates destruction the most – while it is the same thing that was once seen as a marker of development, and still is, depending on the context and political inclination. It is not a simple and subtle shift from seeing industry growth as a goal of development; towards seeing it as something that should be contained, *de*celerated, or maybe even undone for development to hold. But it is a necessary step to counter the damage that has been done. By saying this, I am going a step beyond what is established on the GIZ guidance, however, the guidance does have an explicit goal to enact change in patterns of production and consumption, which can be observe in the figure "Dimensions of transformation", which can be found above. The same can be said of both the most recent HDR and BMUB.

Also, it is important to observe that the industries responsible for large-scale production are the assets of people and groups of people, who more usually than not come from elites and maintain relationships to governments. There are endless networks imbricating endless actors and conglomerates that represent actors while acting in consonance. For example, when Germany owns responsibility for its acts in exploitation of third-world labor, who is the Germany that is speaking? An organization of the state, managed by a given government, which is embedded with the right to speak in the name of the state? The State, on the other hand, is inhabited by a group of people who organize themselves in a democracy, which attempts to represent their citizens in government.

This group of people represented by a State do not necessarily live in community, as Germany is a rather large country. Community agreements are far-fetched in large groups of people, thus the democratic regime is based on representation, measured by individual votes, instead of consensus or collective decision-making. States also involve private companies, owned by people from elites, who single-handedly move capital and assets in a much larger scale than a single individual, and they may or may not contribute to the exploitation of third-

world countries. These are all represented by a single government, the one writing the report, in which all these actors must see themselves.

In sum, there are infinite fronts for action, crossing through all these levels of agency. Development scenarios involve many actors such as these, and there must be clarity in relation to a given set of aspects for a project to be implemented with results that are in accordance with the target group visions and that can promote sustainable change beyond immediate aid.

If 90's discourses on the environment might have been subtler (in the sense of stimulating individual changes in habit for generalized change, or generic changes in global regulations), recognizing that we are living in the Anthropocene (and all this implies) has brought more incisiveness in relation to the need for change. The dire scenarios predicted for the future in case we do not meet the SDGs created the necessity to recognize more actors and spheres of agency to create necessary change.

That is the context in which the GIZ writes the following takeaway:

> Transformation deals with 'super complex' systems. Non-linear behavior and unpredictability are 'normal' in this field. Here, informal social values, norms, beliefs and relationships matter more than formalized and abstracted ones. Adaptive co-evolving processes work better than output oriented linear steering. Joint sense-making of reality works better than the purely evidence-based implementation. Despite some appreciation for complex systems, major parts of development agency and transformative interventions are still subject to systemic conditions that favor formalized linear design and steering (complicated world paradigm). Transformative interventions therefore have to do both, work as much as possible in a 'complexity mode' in a 'complicated world environment' and, in this context, advocate for 'transforming our work' (GIZ, 2020, p.36).

Moreover, the organization affirms that their transformative approach, which has as main goal to intersect several fronts of change, fills this gap between these fronts, thus helping advance transformation. They exemplify this with a rather large example that is very interesting and illustrates these connections and purpose:

> On December 1, 1955, in the city of Montgomery, a bus driver demanded from (told) Rosa Parks, tired from work, to give up her seat for white passengers. Rosa Parks stayed on her seat. Therefore, she was arrested by the police, charged and fined for disorderly conduct and for violating Montgomery's ordinance to segregate bus passengers by race. Rosa Parks' husband was engaged in civil rights movements but she has not been active so far. Martin Luther King, at that time still a rather unknown Baptist priest, organized together with his 'Montgomery Improvement Association' the 'Montgomery Bus Boycott', partly as a response to the events involving Rosa Parks. She herself became an icon of the civil rights movement. As a result, the authorities were obliged to stop the segregation of bus and train passengers by race. This again inspired many more protests of the human

rights movement in the US, which ultimately led to the abandonment of all racial segregation laws. In this case, social values, norms and practices were questioned up to the (tipping) point of establishing fundamentally new values, which were accordingly reflected in new legal norms. However, this did not mean that racism was no longer a problem at the time. So far, most American citizens may not have dared to state that societal transformation for this problem is complete.

It is therefore not sufficient to establish new laws or financial incentive mechanisms that only create extrinsic motivations, or to flood markets with new technologies and products. Societal acceptance (values, norms, attitudes) and the transformability (knowledge, learning, skills) play a major role in allowing transformations to happen. Societal discourse and social learning also play a role when it comes to leading transformations in desirable directions (...). Facilitating social transformation will be crucial when hoping to influence transformations directly or indirectly. At the same time, the academic debate as well as practical guidelines are strongly influenced by the fields of knowledge that focus on technological, political or economic innovation. The obvious gap in social change should be closed and reflected in our competences and portfolio (Ibid).

They schematize these conclusions in another fluxgram in the Figure 16 which may make for easier comprehension, which you can find below:
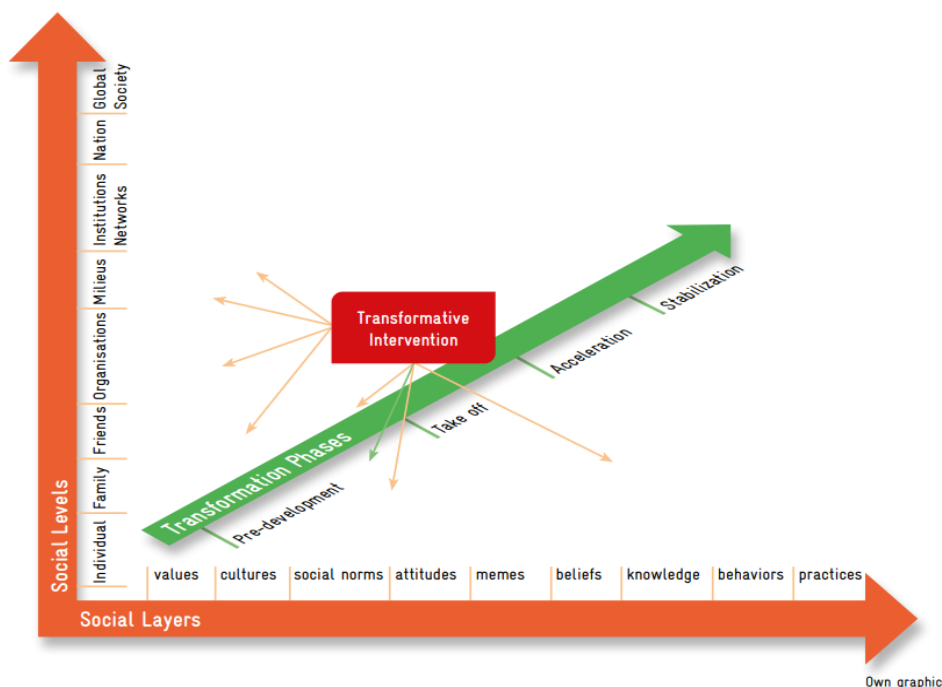

Figure 16 – Coordinates of social and transformative change

Source: GIZ (2020, p.35)

Understandably, such a complex transformative approach is a difficult endeavor that certainly demands time, budget and many highly qualified hands to make it happen, which may be difficult due to frequent time and budget restrictions imposed by donors. It remains, nonetheless, an excellent example of how to incorporate these contemporary problems and critical arguments from the

theoretical discussions we have been mentioning so far into "practical" frameworks to guide project design, implementation, monitoring, evaluation and learning. There is a large challenge into advocating and building policy and programs taking into consideration problems that evoke ontological discussions, and perhaps we really should enjoy more time to mature and build interventions.

The ontological literature we went through in the first chapter is "enlightening" in several aspects, but it does not set out to accomplish a connection to actual projects – instead, it posits itself as a more radically critical stance, questioning the very structures of where IR exists. The governance literature, on the other hand, focuses mostly on the broader scope of policy instead of the localized applications of development, those which draw bridges between global and local, essential for tackling Anthropocene challenges.

The GIZ's transformational approach is a relevant stance insofar as it synthesizes these two approaches by taking their challenges simultaneously. The incorporation of these challenges together is institutionally ends up establishing the need for us to ask ourselves the right questions when formulating our actions, to ensure that projects connect issues and take relevant problems into account properly.

5.3 Enacting transformation

Continuing to analyze GIZ's operationalization of transformative change, we will focus on analyzing monitoring and evaluation materials referent to GIZ transformative in order to understand in more detail how the indicators are presented in relation to a given situation, and how results are envisioned. This would allow us to create an informed judgement on whether these are good practices in relation to other development approaches it contrasts itself with. However, this would require an extensive research endeavor that falls beyond the scope of this dissertation. Instead, this will be an opportunity of exemplifying how strategies aligned with the transformative approach may look like in practice, and what shapes they are taking.

I will do that mainly by reading GIZ's cooperation program for cities in Brazil. It aims at "urban transformation" and begins with a situational diagnostic: over 85% of the Brazilian population lives in cities that consume the most natural resources and pollute the most. Cities also proliferate extreme inequality and correlated issues like violence, physical and mental health problems, etc. Such demographic concentration results in a series of important challenges, including climate events like floods and landslides, which disproportionately affect vulnerable populations and threaten their lives, resources, and assets, often displacing them in the process.

Reflecting on their approach in relation to complexity and the existence of manifold imbricated relationships, GIZ highlights that urban transformation "requires individuals, private companies and governments to develop new forms of thinking and creating cities" (2020, p.5). They go on by criticizing traditional approaches, such as the "complicated" world paradigm, which leads to linear approaches, by highlighting the high complexity of relationships and problems in cities, and the need to include multiple actors (with their varying degrees of agency), while also not forgetting to include reciprocity:

> The traditional understanding and management of urban development no longer reflects the dynamics we are facing in cities today. It is time to think about urban transformation, which represents an open and contradictory process, created by a diversity of actors.
> Urban transformation encompasses the individual dimension, the behavior of citizens and micro-initiatives; it involves new possibilities for products and services offered by the private sector; and it redefines the role of governments in the formulation of public policies, their public services, legislation and financial management.
> In other words, urban transformation understands the city as a complex structure that brings together traditional challenges (such as lack of infrastructure) and disruptive changes (such as those brought by the smartphone). Its processes need to increasingly stimulate an environment of co-creation and collaboration, which requires the interaction between citizens, public and private sector in the search for solutions to old and new urban challenges" (GIZ, 2020, p.5).

This diagnosis, requires recognizing all those elements we have been discussing: cross-sectoriality, agency, mutual accountability implying in a less hierarchical approach, etc.

When adopting a more "traditional" approach one could, for example, observe a problem on infrastructure vulnerable to heavy rains and create a linear solution to improve said infrastructure, for instance, by providing better building

material. However, it is also relevant for agencies and actors to understand that the existence of vulnerable infrastructure is related to a series of complicated social relationships: why are the people at risk living at risk in the first place? Who is most at risk? What is their reading of the situation? Why does the city structure itself in such a way? Is there any way to build solutions that will also work to *avoid* the occurrence of heavy rains or floods?

These are the types of questions that, according to the GIZ's transformative approach, must be asked and answered beforehand, for a project to go beyond incremental improvement and effectively transform a given scenario.

After tackling the Brazilian situation in a highly complex approach, GIZ developed a series of combined initiatives (over 16) that tackle different sets of problems. These combine varied strategies like knowledge generation, technical support, capacity strengthening, creation of tools, strategies and plans for public and private action, financing, research and creation of documents for political incidence, etc. Below are a few representative examples I have selected:

a) The National Policy for Urban Development (NPUD): a policy endeavor consisting on establishing what are the cities we want and creating orientations to achieve this vision. It is a "tool to facilitate a national dialogue" (p.6);

b) Methodology for Ecosystem Based Adaptation (EbA) for Morro Monte Serrat, Santos (São Paulo): intersectoral planning to create resilience to climate events to an area at high risk, involving areas like "soil protection, water retention, and reduction of drainage flow velocity" (p.7). This involves participation of the community to ensure their needs are met and they are equally represented (with a specific concern to gender equality in representation);

c) Review of the National Housing Plan: Also a planning initiative that aims to start the formulation of a long-term strategy for housing in Brazil, taking into consideration human rights and sustainability: "(…) aiming at the reduction of climate impacts through renewable energy efficiency in buildings and neighborhoods. It focuses on participation of several sectors and new potentials of digital tools" (p.7);

d) Water loss – Guide to determine the economic levels and progressive control targets for municipalities, regulators and service providers: a guide

to reduce water loss in innovative ways to optimize budgets, thus supporting local governments;

e)   Technical assistance for a clean and integrated public transportation system in the metropolitan region of Florianópolis (Santa Catarina): Technical assistance and investment to the state government in the development of an integrated public transportation system using low carbon technologies;

f)   Electric Scooters in cities: Research and analysis document aiming to influence public and private actors on the use of scooters as a sustainable alternative;

g)   Model for management of land use and urban density: creation of management model to help governmental authorities to guide land use and urban density in a sustainable way that also attends to the needs of the population;

h)   Requalification of degraded housing developments: Support to improve results in a housing program in Brazil (Minha Casa, Minha Vida), in order to incorporate these housing units into more equitable and sustainable modes of living, for example, optimizing water and energy efficiency and advancing "dynamic public spaces and green areas" (p.15), improving life quality and sustainability;

We would need a lot more detailed information on these projects to state if and why they are transformative or innovative according to the criteria established in the guidance. However, we can see a series of consistent aspects: the lack of sustainability in cities comes hand in hand with inequality, and all these examples include a concern with equality as well as sustainability when addressing the human need for adequate housing, access to water, dignified transportation and so on. If we are also concerned with the world as an interconnected whole, these local concerns also have to be mindful of environmental impacts, hence the transformative investment in innovation and sustainable technologies, for example, in the creation of transportation systems, housing and water management.

Criticism can be addressed to GIZ's approach concerning whether the definitions of transformation and changing paradigms are adequate to begin with, or question if the approach is more ambitious on paper than it is in practice.

However, it should be noted that the concept of transformation allows for various degrees of commitment and scale. A transformation within cities may simply not be enough and require broader social and political dialogue regarding the very configurations of our modes of life (as BMUB's suggestion of debating welfare). Cities, for instance, exist within broader ecosystems: they depend not only on infrastructure and internal resources, but also on products from rural areas, fundamental for everyone's survival.

How are these raw materials arriving in cities being produced? In what conditions? How are they being transported? What are the drivers attractiong people to live in metropolis and large cities in detriment to their previous communities? How can we create initiatives that incentivize the connection between cities and broader contexts? How do we create mindfulness in relation to the origins of things necessary to survival, like food and electricity? How is it possible to tackle these inequalities and create incentive to slower modes of life? None of these are easy questions to answer, but regardless of that, to be able to answer them sometime, we need multiple and multifold efforts like those we have been writing about so far.

6 Conclusion

This thesis was an attempt to combine my experience in "theory" and in "practice" (something new to me, as my academic trajectory has been largely theoretical and philosophical so far). One very common anguish that used to afflict myself and academics, in general, is the fact that theoretical work sometimes feels very loose and unconnected to visible and measurable impact. This research has given me some clarity that provoking reflections, for example, on ontological foundations of the world, may be abstract but extremely valuable for many practical concerns.

It became clearer to me that there is a mutual, transdisciplinary revision between theoretical thinking and the often highly specific domain of policy elaboration and implementation. This process entails the creation of novel ways to visualize and conceptualize policy interventions as interventions into the future. This is precisely why exploring development, one of the most consistently future-oriented branches of policy, which had also been transformed in the 20th century, was the field in which I wanted to work on. Overcoming the deflationary intuition about the appearance of the Anthropocene in policy discourse, which might be misjudged as a mere buzzword or intellectual fashion, shows us a lingering connection between theoretical thought and development interventions which were the subject of Chapter 2.

Substantiating these claims required a localization of the challenges brought by this conjuncture that runs parallel to a concrete analysis of an institution that has enough traction to become the main nexus of influence for its spread into policy implementation. This is precisely the foundation behind the analysis of the HDR and its incorporation of questions around epistemology, modes of lives and "different worlds". It is not easy to draw a scientific causality between these factors and this is not my proposal. However, showing that the revision of these policy models has been propelled by these concerns required me to explore a selection of organizations, reports and policy models in Chapters 3, 4 and 5.

Chapter 4 examines UNDP interventions historically to give colors and contextualize examples of interventions that are being associated with recognition

of the Anthropocene. The idea is to give substance to the Anthropocene discussion (what exact type of intervention is imagined when we defend that action must be taken in relation to the Anthropocene?), and to understand whether anything has changed in the shape of development interventions after "incorporating" the Anthropocene.

The conclusion to this latter question is that no, or at least not clearly, or not quite. For instance, he "Anthropocene" word appears a little after the "nature-based solutions" that the UNDP creates in 2018, and a little later (2020) comes to point out as a path to address the Anthropocene. Simultaneously, the interventions the GIZ associates to the Anthropocene and their transformative approach to it may have started before this specific use of the word. However, there is a clear correlation. None of the problems and diagnosis contained within the Anthropocene conceptualization and discussion is completely new, however, "Anthropocene" works as an apex point to correlate a bunch of things that may have gone separately or unrelatedly, and as a catalyst to specific types of changes that are conscious of humans and environment simultaneously.

Walking hand in hand with that, the consistent approach we have seen, for example, in the nature-based solutions approach and the transformational approach, is a careful consideration to varied and wide aspects in policy design, implementation and monitoring. Including environmental questions to any project (how does this project affect the environment? Moreover, how can this project be use to improve the environment?) is an imperative – which we also see in BMUB's 2030 programme, when the organization establishes as one of its aims the inclusion of environmental impact analysis in any and all policy building. This is not necessarily self-evident for all policy and program interventions, either historically (as we checked on chapter 3), or contemporarily. This deep level of awareness can be costly and slow, but it is worth it, as everything is at risk in the Anthropocene.

Chapter 5 looks further to innovations associated to the Anthropocene by looking at GIZ and BMUB. Besides showing a supposedly more radical alternative running parallel to the HDR platform, this excursion equips us with the concept of transformational policy intervention, which can be seen as a way of placing the Anthropocene as a nexus between academia and development "practice" – a

connection which the GIZ recognizes and incorporates in the development of the approach. It may still need improvements, but again, it is a step. Seeing things panoramically through this research has also shown me slow-coming change – even though slow change is not enough anymore, according to Anthropocene-conscious agencies like BMUB and GIZ.

Moreover, the treatment given to indigenous communities in development was the most surprising feature of this research to me. The introduction of Anthropocene arguments in documents as "mainstream" as the HDR was a striking discovery. It signalizes an evident shift in how these populations are treated: from "differently cultured" rights-holders to groups who have systems of knowledge from which the rest of the world can learn. This is also a dangerous terrain to step on, as it may fall into essentialization and fetishization that may hinder full access to rights, and even divert attention from other non-indigenous traditional peoples that merit the same care and listening, depoliticizing the term (Teixeira Delgado, 2018). However, it is also a major step into the direction proposed by many "ontological turn" authors like the ones we examined on chapter 2.

For the most pessimists of critics (as I myself once was), the introduction of such vocabulary in "mainstream" policy platforms was something between unexpected and unbelievable. The same goes to modes of production. We are beginning to more solidly acknowledge the need to produce things differently, which is a tricky road to go into, because it involves private actors. Yet, the connection between production, prosperity and equity is inescapable, and is starting to appear more consistently in the Anthropocene, although still more or less abstractly.

In this sense, this thesis has opened up many avenues for further investigation that I would like to pursue in the future, theoretical as much as policy-related – what can be a path to insert indigenous knowledge on the Anthropocene into development (going beyond designing positive policy *for* indigenous peoples, but creating development that benefits from indigenous peoples into elsewhere)? How can we conceptualize and start to take steps on the major issue of mass production on the Anthropocene? What is the felt and measured impact of cross-sectoral interventions taking the environment as one more variable? How can we

develop the theoretical concept of acknowledgement and how it relates to Anthropocene politics?

Thus, what drew me to study the Anthropocene was not the environment, but the idea of rebuilding or restructuring our future, creating possibilities for it. In relation to the answer to my question on how the Anthropocene is being operationalized in policy, the answer lies in the connection between the environment and many other areas important to life, prosperity and equity.

In the informed opinion I have come to build after this research, that is the role of the Anthropocene. When looking at actual development interventions in time, I did not realize any abrupt or radical changes that have come after we have acknowledged that we live in the Anthropocene (evidently, a built concept, inside our common language). The main issues recognized in the Anthropocene – like interconnectedness, interdependency, the importance of community and the value of indigenous knowledge – have all, in some measure, existed for some time and fortunately, development interventions have been in some degree incorporating this built-up knowledge progressively for a while.

Finally, as far as policy and programs go, embedded in infinite networks of governance structures and funding requirements, it is very difficult to operationalize a conscious and careful cross-sectoral approach. Things have to be done very fast, with limited hands (something that could also benefit from BMUB's idea to introduce time awareness into the public debate). But an important part of "progress" in that regard is knowing and learning how to ask the right questions.

After all, everything is done by networks of organic, thinking heads with situated perspectives. We have to understand the importance and prioritize the acts of asking things like: how are given population segments differently affected by a scenario? (A question that demands there to be a critical discussion and previous acknowledgement of differences like gender, age and disabilities, discussions which are mostly derived from activism and academia). How is my intervention impacting the environment? (Which requires a previous acknowledgement that the environment is connected to human action and its depletion leads to deep damage,

an acknowledgement that derived from accumulated accomplishments of scientific practice). And so on. Thus is the Anthropocene helpfulness as a concept.

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