

# Degrowth in the IPCC AR6 WGII

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**Abstract:** This article examines the first explicit incorporation of the concept of degrowth into an Intergovernmental Panel on Climate Change (IPCC) assessment report. Focusing on the Working Group II contribution to the Sixth Assessment Report (AR6), it identifies and analyses the report's references to degrowth across Chapters 1 and 18. The article shows that degrowth is presented in three distinct ways: as a school of thought critical of the feasibility of large-scale absolute decoupling, as a post-growth perspective on development, and as a potential strategy for achieving environmental sustainability and social well-being. The paper also reconstructs the academic sources cited by the IPCC authors, highlighting the growing influence of ecological economics and post-growth scholarship within international climate assessments. Although references to degrowth remain limited and do not appear in the Summary for Policymakers, their inclusion marks a significant departure from previous IPCC reports and signals increasing recognition of alternative development paradigms in climate governance.

## Introduction

This is historic. For the first time since its original 1990 report, the Intergovernmental Panel on Climate Change (IPCC) has talked about *degrowth*. The term is mentioned 15 times (plus 12 mentions in the bibliography) in the 3,675-page report of the second working group "[Impacts, Adaptation and Vulnerability](#)," which was released on 28 February 2022. In this article, I will describe these mentions and specify the bibliographic references used in the report (in the endnotes).

## Degrowth as an alternative to green growth

The first mention of "degrowth" happens in *Chapter 1: Point of Departure and Key Concepts*, in a subsection titled *Understanding Transformation*. The term appears in a literature review of "narratives [that] describe pathways for pursuing deliberate transformations."

After a brief discussion on what *transformation* means, the section presents "two contrasting schools of thought, called ecomodernism and **degrowth**<sup>1</sup>." Ecomodernism, it is written, "aims to decouple greenhouse gas emissions and other environmental pressures from GDP [Gross Domestic Product] growth." In contrast, "**degrowth** proponents question the feasibility of decoupling at a scale and rate sufficient for meeting Paris Agreement Goals"<sup>2</sup> (Chap 1, p.67). The same point is repeated a paragraph later: "**degrowth** scholars emphasize that global absolute decoupling is currently not proceeding fast enough to meet Paris Agreement targets"<sup>3</sup> (Chap 1, p.68).

The paragraph continues explaining that "using precautionary principle-rooted argument,<sup>4</sup> **degrowth** aims for the intentional decreases in both GDP and coupled GHG [greenhouse gas] emissions<sup>5</sup> using policy mechanisms such [as a] 'cap and share' framework for distributing emissions

permits on an annual declining basis with legislation to prohibit the overshoot of established carbon budgets.<sup>6</sup> **Degrowth** thus seeks to minimize reliance on negative emissions technologies, such as the large-scale deployment of BECCS [Bioenergy with Carbon Capture and Storage] and aims to generate progress toward achieving the SDGs [Sustainable Development Goals] by prioritising redistribution rather than GDP growth. SDGs potentially addressed by **degrowth** include universal basic income (SDGs 1 and 10), work-sharing to guarantee full employment (SDGs 8 and 10) and shifting taxation burdens from income to resource and energy extraction (SDGs 8 and 12)” (Chap 1, p. 67-68).

One can also find a mention of the term in the summary of Chapter 1: “Alternative pathways for pursuing deliberate transformations range from a focus on modernisation of sectors such as energy, agriculture and use of natural resources to proposals for **degrowth** that aim for intentional decreases in both GDP and coupled GHG emissions” (Chap 1, p.6).

## Degrowth as a perspective on development

The second place where the idea is mentioned is the final chapter of the report (*Chapter 18: Climate Resilient Development Pathways*), first in a section titled *Linking Development and Climate Action*. The section begins with the observation that “some observed patterns of development are inconsistent with sustainable development,” making way for a subsection titled *Understanding Development in Climate Resilient Development*, which makes a number of claims about which kind of development is most compatible with climate resilience.

This subsection opens with a broad definition of development as “efforts, both formal and informal, to improve standards of human well-being” (Chap 18, p.19), and a critical comment about approaches that use measures of economic activity as proxies for well-being: “the level of gross domestic product (GDP) is often equated with levels of social welfare, even though as a measure of market output it can be an inadequate metric for gauging well-being” (Chap 18, p.19).

The next paragraph continues to problematise visions of development centred around economic growth: “linking development to past and current modes of economic growth creates significant challenges for CRD [Climate Resilient Development], as it implies that the very processes that have contributed to current climate challenges, including economic growth and the resource use and energy regimes it relies upon, are also the pathways to improvements in human well-being. This places climate resilience and development in opposition to one another” (Chap 18, p.19).

The following paragraph outlines the five pillars of the Agenda 2030: *People, Planet, Prosperity, Peace, and Partnership*. Most interestingly for the issue at hand, the economic pillar is depicted as such: “the focus on prosperity refers to equity in well-being grounded in unanimity over shared goals and resources, rather than individualism, and economic, social and technological progress grounded in stewardship and care, rather than exploitation” (Chap 18, p.20).

This brings us to the subsection where degrowth is mentioned. *Development perspectives* starts by reviewing several alternative indicators of development, reiterating the previous statement about economic growth being problematic for climate resilient development: “Alternative measures of development, while numerous, generally seek to nuance the connection between economic growth and human well-being. Because they maintain core notions of progress and, in some cases, economic growth seen in more mainstream models of development, they are less vehicles for transformation than continuations of thinking and action fundamentally at odds with the needs of climate resilient development” (Chap 18, p.20).

The report then presents a typology of five “perspectives on development,” each associated with a time period: (1) *development as economic growth* (1950s onwards), (2) *development as*

*distributional improvements* (1970s onwards), *development as participation* (1980s onwards), (4) *development as expansion of human capabilities* (1980s onwards), and (5) *development as post-growth* (2010 onwards). Concerning the last one, the authors point to the financial crisis of 2008, which “led many scholars, ecological economists and environmental social scientists in particular, to argue for a **post-growth** world.” “**Post-growth, degrowth** and other environmentalist scholarship,” they write, “takes inspiration from critiques of development such as post-development<sup>7</sup>. The argument here is not for better metrics but for imagining and working towards systemic change in the wake of the climate crisis” (Chap 18, p.21).

The final paragraph of *Development perspectives* opens with the following statement: “To achieve climate resilient development requires framings of development that move away from linear paradigms of development as material progress by focusing on diversity and heterogeneity, wellbeing and equality, not only in contemporary practices, but also pathways of change over time.”<sup>8</sup> These “different paradigms of wellbeing” (they mention *buen vivir*, *ecological swaraj*, and *Ubuntu* as examples) “are all linked by relationships with nature radically different from the Western mechanistic vision” and “serve as examples of alternative ways of living in balance with nature that might inform similar thinking in other places” (all citations are from Chap 18, p.21).

## Sustainable degrowth

The third major mention is also in Chapter 18, this time in a subsection titled *Economic and financial arenas* (part of *Agency and Empowerment for Climate Resilient Development*). The opening paragraph of the subsection discusses decoupling, arguing that certain nations managed to reduce their emissions while growing their economies while others did not. Worth mentioning is a reference to the book *A Future Beyond Growth: Towards a steady state economy* (2016), mentioned in the final sentence of the paragraph: “In addition, an extensive literature now argues that current patterns of development, and the economic systems underpinning that development, are unsustainable (Washington and Twomey, 2016), and thus economic growth may not necessarily continue indefinitely in the absence of more concerted effort to pursue sustainable development, including reducing the impacts of climate change” (Chap 18, p.80).

The section continues with four paragraphs about alternative indicators to GDP, and ends with a fifth paragraph that is worth quoting at length. “A potential critique of the various alternative metrics and models for economic development is that they are all framed in the context of growth. Over the past decade, ecological economists and political scientists have proposed **Degrowth**<sup>9</sup> and **managing without growth**<sup>10</sup> as a solution for achieving environmental sustainability and socio-economic progress. Such concepts are a deliberate response to concerns about ecological limits to growth and the compatibility between growth-oriented development and sustainability.<sup>11</sup> Sustainable **degrowth** is not the same as negative GDP growth which is typically referred to as a recession.<sup>12</sup> **Degrowth** goes beyond criticizing economic growth; it explores the intersection among environmental sustainability, social justice, and well-being.<sup>13</sup> Under current economic and fiscal policies (see Box 18.8)<sup>14</sup>, **degrowth** has been argued as an unstable development paradigm because declining consumer demand leads to rising unemployment, declining competitiveness, and a spiral of recession.<sup>15</sup> More comprehensive modelling of socio-economic performance understands the segments of sufficient social transformation to guarantee maintenance and rise in wellbeing coupled with reduced 'footprints'<sup>16</sup>” (Chap 18, pp. 81-82).

At last, there are two other isolated mentions in Chapter 18. One in Box 18.4: *Adaptation and the Sustainable Development Goals*: “The achievement of the SDGs represents near-term positive sustainability as well as indicating the quality of development processes and actions (inclusion and social justice, **degrowth** and alternative development models, planetary health, well-being, equity,

solidary, plural knowledges and human-nature connectivity) that enable CRD in the long term” (Chap 18, p.31). And the other in a subsection titled *Political Economy of Climate Resilient Development* where “**degrowth** and low-carbon economies<sup>17</sup>” is listed while reviewing the “extensive post-AR5 literature on political economy” (Chap 18, p.65).

## Conclusion

Let’s recap. The idea of degrowth is discussed in three different places: once in Chapter 1 as a school of thought sceptical of decoupling, and twice in Chapter 18, first as an alternative perspective on development (then named as *post-growth*), and later as a strategy for sustainability. This is remarkable because these ideas have never been mentioned in any of the previous IPCC reports (even though the mention is limited in reach since it only figures in the [full report](#), and not in the 36 pages [summary for policy makers](#), or in the 96 pages [technical summary](#)).

## Notes

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<sup>1</sup> The term “degrowth” is followed by a bracketed reference to the book [Degrowth: a vocabulary for a new era](#) edited by Giacomo d’Alisa et al. in 2014.

<sup>2</sup> The sentence bears four references. The first is “[More is more: Scaling political ecology within limits to growth](#),” a short article written by Erik Gómez-Baggethun in *Political Geography* at the beginning of 2020 (less than four-page long, the article is a reply to Paul Robbins’s “[Is less more... or is more less? Scaling the political ecology of the future](#)”). The second reference is “[Is Green Growth Possible?](#)” from Jason Hickel and Giorgos Kallis, published in *New Political Economy* in April 2019, and the third is also from Giorgos Kallis: “[Radical dematerialization and degrowth](#)” from May 2017. The final reference is “[Decoupling Debunked](#),” a report co-authored by myself and colleagues in the Summer of 2019.

<sup>3</sup> Three references at the end of the sentence: the first to a systematic review of the empirical literature on decoupling from [Helmut Haberl et al.](#) in June 2020, the second to one specific [empirical study from May 2019](#) that looks at the decoupling of energy consumption and carbon emissions in the European Union from 1990 to 2014, and finally an older [article from 2016](#) that uses a theoretical model to demonstrate that GDP cannot be decoupled from growth in material and energy use.

<sup>4</sup> The phrase “precautionary principle-rooted argument” bears a reference to Serge Latouche’s 2001 book *La déraison de la raison économique: du délire d’efficacité au principe de précaution* (*The madness of economic reason: from the folly of efficiency to the precautionary principle* – my translation).

<sup>5</sup> The claim that degrowth “aims for the intentional decreases in both GDP and coupled GHG emissions” is referenced to an article from Giorgos from 2011: “[In defence of degrowth](#).”

<sup>6</sup> This sentence is attached to a reference to Richard Douthwaite’s “[Degrowth and the supply of money in an energy-scarce world](#)” from 2012 and Giorgos Kallis et al.’s “[The economics of degrowth](#)” also from 2012 (the editorial introduction of a special issue in the journal *Ecological Economics*).

<sup>7</sup> The term “post-growth” bears a reference to Tim Jackson’s latest book from 2021 “[Post Growth: Life after Capitalism](#).” The term “degrowth” bears two references: one to [Degrowth](#), a 2018 book by Giorgos Kallis, and the other to a collective article lead-authored by Jason Hickel: “[Urgent need for post-growth climate mitigation](#)”

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[scenarios](#)” published in *Nature* in August 2021. The term “post-development” bears a reference to “[Imagining a post-development era](#),” a chapter written by Arturo Escobar in the 1995 book *Power of Development*.

<sup>8</sup> The sentence talking about “moving away from linear paradigms of development as material progress by focusing on diversity and heterogeneity” references a book (*A Postcapitalist Politics*, 2006) and an article (“[Surplus possibilities: postdevelopment and community economies](#),” 2005), both by economic geographers J.K. Gibson-Graham.

<sup>9</sup> Two references are attached to “Degrowth”: one to the previously mentioned “[In defence of degrowth](#)” (Kallis, 2011), and the other to an 2013 article by F. Demaria, F. Schneider, F. Sekulova and J. Martinez-Alier: “[What is Degrowth? From an Activist Slogan to a Social Movement](#).”

<sup>10</sup> Single reference to Tim Jackson’s book *Prosperity Without Growth* (2009).

<sup>11</sup> Reference to an academic article by G. Kallis, J. Martinez-Alier, and R.B. Norgaard: “[Paper assets, real debts: An ecological-economic exploration of the global economic crisis](#)” (2009).

<sup>12</sup> Another reference to the previously mentioned “[In defence of degrowth](#)” (2011) by Giorgos Kallis.

<sup>13</sup> Another reference to the previously mentioned “[What is Degrowth? From an Activist Slogan to a Social Movement](#)” (2013) by Demaria et al.

<sup>14</sup> Box 18.8: *Macroeconomic policies in support of Climate-Resilient Development* can be found in p.82. It presents “a range of fiscal tools [that] can be leveraged to mitigate the effects of climate change,” including monetary policy, fiscal policy, carbon pricing, taxes, and subsidies.

<sup>15</sup> This sentence bears a reference to one single page (p.46) from Tim Jackson’s *Prosperity without growth* (2009) at the end of Chapter 4: Dilemma of Growth. On the first edition of the book, the specific passage actually occurs in p.65: “‘De-growth’ is unstable – at least under present conditions. Declining consumer demand leads to rising unemployment, falling competitiveness and a spiral of recession.”

<sup>16</sup> The sentence bears a triple reference: Kate Raworth’s book *Doughnut Economics* (2017); an empirical article by Jason Hickel (“[Is it possible to achieve a good life for all within planetary boundaries?](#)” 2019); and another empirical article lead-authored by Simone D’Alessandro: “[Feasible alternatives to green growth](#),” 2020.

<sup>17</sup> The term “degrowth low-carbon economies” is linked to two texts: one academic article written by Patricia E. Perkins in 2019 (“[Climate justice, commons, and degrowth](#)”), and another one by Peter Newell and Richard Lane from 2020: “[A climate for change? The impacts of climate change on energy politics](#).”

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