



Towards sufficiency and solidarity: COP27 implications for construction and property

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POLICY ANALYSIS

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ABSTRACT

With COP27 being held in Egypt, a non-Western country, poorer and adversely impacted societies will demand a stronger say in negotiations. There is increased pressure on the rich to dramatically reduce their emissions, provide reparation for past damage and exploitation, and assist poorer nations to improve social livelihoods. Such a new world order will require that global inequity in resource consumption be placed in the spotlight, with fair shares demanded for all. Calling for drastic and urgent action and a paradigm shift to contain warming to 1.5°C, the 2022 IPCC report *Climate Change 2022* emphasised the need for ‘sufficiency’ to avoid demand for resources while providing wellbeing for all within planetary limits. However, responses to date have been grossly inadequate, amid continued economic growth and policies based upon resource efficiency, renewables and a circular economy. This is most evident in the construction and property sectors, where high rates of new construction continue in both the Global North and South, while claiming this is green and carbon neutral. Bolder, more ambitious policies are proposed that seek to rebalance construction to suit needs, not wants, and especially to restrain the excesses of the property industry driven by financialisation.

POLICY RELEVANCE

Current policies and approaches are inadequate to make the required savings in carbon and resource consumption. While embodied carbon is increasingly recognised, this largely applies at the materials level and to carbon intensity metrics, which may lead to around 50–60% reduction. However, building less (e.g. by adapting existing stock) or not building at all lead to significantly greater savings of greenhouse gases and resources. To meet climate and other targets, policies and approaches are required that question the global demand for new construction within high- and medium-income societies, rebalance such construction and resource consumption, restrain building size and floor area, and invoke ‘sufficiency’ metrics. Maximum carbon reduction and improved resource allocation may be achieved by carbon budgets and (radically) questioning the need for certain building types, especially when digitalisation enables work from home. Means of diverting investment for social purposes, while integrating such policies in the planning system, are examined.

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1. INTRODUCTION

While ‘Conferences of the Parties’ (COPs) focus on Climate Action (the United Nations Sustainable Development Goal (SDG) 13), this should be viewed within the context of other SDGs including End Extreme Poverty (SDG 1) and Reduce Inequality (SDG 10). Arguably, inequality is at the heart of the climate change crisis and other global emergencies related to Life on Land (SDG 15) and Responsible Consumption (SDG 12).

As Stahel (2008: 508) wrote:

the key issue at stake is unbalanced resource consumption at a global level, an issue of global ethics,

while overconsumption is the root cause of the climate and other crises. It must be addressed in limiting global warming to 1.5°C by 2050, which involves ‘bending the curve’ by 2025 and achieving substantial cuts in carbon by 2030. Wealthier societies must dramatically reduce their absolute ‘consumption carbon’ by around 90% by 2030, while the poor may initially increase theirs to meet the need for shelter and infrastructure—a strategy known as ‘shrink and share’ (Kitzes *et al.* 2008: 469; UNEP 2020).

The built environment is responsible for approximately 39% of carbon emissions, of which three-fifths is produced by commercial real estate (Cypher & Elamine 2021). Thus, within the wider political context and likely reform of COP processes, this article examines current policies and practices related to construction and commercial property. It puts forward a series of policy recommendations to drive drastic and urgent transformation.

2. FROM GLOBAL DISPARITY TO SOLIDARITY

Expressing frustration at the ‘dismal’ outcomes of COP26, Sultana (2022: 2) highlighted such disparity:

COP26 can be seen as one of the theatres of climate colonialism (led mainly by corporations, powerful governments, and elites) [...].

Nevertheless, there are ‘spaces of opportunity’ to challenge the system, ‘a repoliticization of climate instead of the depoliticized techno-economist utopias that deliver’ (Sultana 2022: 2). COP27 in Egypt provides such an opportunity.

The growth economy pursued by the rich has been described by Spash (2021: 1142) as ‘a hegemonic power structure [...] an ideological position that continues to dominate’. As rich countries are responsible for 80% of all historical carbon emissions, Hickel (2015) called for a complete shift in approaches, with so-called ‘developing countries’ taking the dominant role: ‘Forget “developing” poor countries, it’s time to “de-develop” rich countries.’ As ‘developed’ nations have failed to shoulder their responsibilities, perhaps more power should be passed to climate-affected and exploited nations, who have more at stake in reform?

Meanwhile, wealthier societies have sought to tackle climate change via substantial investments in new technologies and renewables, requiring continued extraction of precious minerals. On the other hand, the poor suffer the consequences, while struggling to attain basic social livelihoods. Shamefully, the rich have failed to provide the agreed US\$100 billion climate finance to assist them recover and adapt to climate impacts (UNFCCC 2022). Using a powerful metaphor to emphasise the need for solidarity, Mamphela Ramphela (WRF-IRP 2022) argued that we should all be one global family and, in that regard, ‘you cannot allow yourself to eat when your siblings go hungry’.

3. REDUCING AND REBALANCING RESOURCE CONSUMPTION

Hickel *et al.* (2022: e342) have drawn attention to the overshoot of planetary boundaries by higher income nations, which use substantially more abiotic resources per capita than their lower income

counterparts and are ‘the primary drivers of ecological breakdown’. Furthermore, ‘the majority of ecological pressure from excess consumption in rich nations is outsourced to poorer nations’ (Hickel *et al.* (2022: e346), effectively ‘exporting’ their emissions (Ghosh *et al.* 2022: 10).

Potočník & Teixeira (2022: 8) acknowledge that:

resource use to meet growing human needs in emerging and developing countries should be balanced by absolute reductions in resource use in developed economies.

As Schmidt-Bleek (1993: 114) has emphasised:

the economies of the countries [...] for which most of the material flows are presently moved would have to dematerialise by an average factor of ten in order to allow for a reduction in global material flows by 50%.

Furthermore:

the decreasing material input into industrialised countries can be organised in such a way that a temporary increase and subsequent drop for the countries in the South becomes possible within the overall material reduction scheme.

Global carbon inequity is increasingly due to extreme and growing inequalities *within* countries, which accounts for nearly two-thirds of global carbon inequality (Ghosh *et al.* 2022). Hence, climate and resource policies should target the richest 10% who are responsible for nearly half of all consumption emissions (UNEP 2020), much of which supports ‘corporate profit and elite accumulation...that have little relevance to wellbeing’ (Hickel & Slameršak 2022: e628).

4. CONSTRUCTION AND PROPERTY: ‘A MAJOR BUILDING BINGE’

Prevailing attitudes within the construction and property sectors, dominated by so-called ‘advanced’ economies and their multinational corporations, are of serious concern. Continuing high rates of construction remain unquestioned, with a spokesperson for the US-based Carbon Leadership Forum (CLF) (2021) claiming:

We are in the midst of the major building binge in human history. [...] We won’t stop creating buildings, but we can pivot, make them part of the solution,

with reliance placed on low-carbon, biogenic and photosynthetic materials to meet climate imperatives.

According to Architecture 2030 (2021):

The industry expects to double global building floor area by 2060, by adding 2.4 trillion ft² (230 billion m²) of new floor area, the equivalent of adding an entire New York City every 34 days.

In its COP26 Communique, it committed to energy-efficient, resilient, zero carbon buildings, while proclaiming that ‘carbon emissions in the entire US building sector continue to decline each year’. The sector:

has not increased its energy consumption since 2005, even though the US has added more than 50 billion ft² (4.645 billion m²) of buildings during that time.

This fails to account for *embodied* emissions associated with the production and construction of buildings, which are expected to account for over half of total greenhouse gas (GHG) emissions between 2020 and 2050 (WGBC 2019).

The rate of floor area growth continues to surpass that of population growth, while ‘green building’ certification systems—based upon carbon intensity metrics—fail to constrain overall building size (Hollberg *et al.* 2019). As much as 50–80% of carbon (*i.e.* GHGs) is generated ‘upfront’ during the extraction, production and construction phases, which is where attention must surely be focused.

5. THE MAIN DRIVER: FINANCIALISATION

According to Savills (2016), worldwide commercial real estate assets:

represent 2.7 times the world's GDP [gross domestic product] and are an important store of national, corporate and individual wealth.

Urbanisation is expected to 'turbocharge growth in emerging markets', which will be concentrated in China, India, Africa and, alarmingly, the US (Oxford Economics 2021: 39). Arguably, such real estate growth is *not* what is needed by the South or parts of the North.

Capital is channelled to commercial property on the basis of its relative attractiveness to global investors as a financial asset, market prices and rents liable to increase. Property is viewed as 'a place to park money', leading to an 'over-building mentality' (Short 2021). As Bryan *et al.* (2017: 503) noted:

The objective shifts from the purpose and use of the building [...] to building as asset and its value compared with other asset values [...] the cityscape becomes an asset class.

As Short (2022) explained:

curbing the excesses of speculative real estate [...] would contribute to the combined goals of reducing inequality by improving the affordability of housing, and reducing the planetary pressure that comes from overbuilding.

Such financial speculation is often entangled with government economic development strategies and provides a source of tax income. Overcoming this nexus between property financialisation and local economic benefit presents a major challenge.

6. ENTER SUFFICIENCY AND SOLIDARITY

Property and construction are key priorities for introducing 'sufficiency' policies and practices due to their potential to reduce emissions by 81% between 2020 and 2050 (Creutzig *et al.* 2021). The IPCC (2022) introduced sufficiency as avoiding demand for resources while enabling wellbeing for all within planetary boundaries, with solidarity implicit in the definition. Saheb (2021a, 2021b) has explained how sufficiency differs from efficiency and circularity, and how it may achieve significant cuts in resources and carbon by providing for 'needs' not 'wants', while reducing absolute consumption.

When applied to construction and property, sufficiency urges societies to meet needs by building less, or by making existing spaces and buildings 'work harder' via their adaptation, increased utilisation or sharing. It also involves the consideration of what we build, where and if we need to build at all. Innovative responses to Covid-19, including remote work supported by digitalisation, have facilitated business transactions to be delivered online, obviating the need for new real estate. Although facilities are required for functions such as manufacturing, Ness & Xing (2022) used a case study to question the new construction requirements of 'smart precincts'.

Sufficiency may be seen as primarily applicable to the Global North, where demand for new construction is questionable, while the Global South requires resources and construction to cater for burgeoning urbanisation. However, the application of sufficiency principles to new facilities and infrastructure in the South can ensure that investment is used in a more cost-effective manner, while increasing resource productivity and resilience.

Ramphela (WRF-IRP 2022) has challenged capitalist material-driven growth, asking: 'what is value?', 'what choices are we making with extracted materials to deliver most value?' and 'who used extracted materials, for what purpose?' She highlighted excessive exploitation and wastage of material resources by the Global North, and demanded 'radical rethinking' to arrest overconsumption.

In questioning how resources may deliver most value, the notion of ‘use-value’ provides a way forward. In the theory of thermodynamics, use-values are defined as material or energy with low entropy, based upon capacity to satisfy human needs. As Georgescu-Roegen (1973: 47) pointed out:

Every time we produce a Cadillac, we irrevocably destroy an amount of low energy that could otherwise be used for producing a plough or a spade. In other words, every time we produce a Cadillac, we do it at the cost of decreasing the number of human lives in future.

High rates of profit and accumulation usually indicate a high throughput of materials and energy, accelerating entropy increase which ‘blots out the conditions for human life on the planet’ (Georgescu-Roegen 1973: 47). Thus, resource-consuming speculative commercial premises, erected to satisfy fictitious demand and provide investment profit, could be said to have little ‘use-value’ and represent high entropy.

As Walker (2021) noted:

it is easy to see why the real estate sector is not arguing for a commitment to stop building: development is in the sector’s DNA. [...] A number of industry observers argue that we should not be constructing a new building unless it can be demonstrated that there is an absolute imperative for it to be built (the ‘necessity test’).

Such concepts may form a base upon which to move real estate away from being a financial commodity and establish an ‘eco-social framing for property expansion’, enabling investment and real estate to be directed and managed for the common good (van Griethuysen 2012: 266).

7. DISCUSSION

To arrest the growth in carbon emissions, the key challenge is to overcome the present inequitable and unsustainable system whereby controllers of capital flows (who apply exchange-values rather than use-values):

determine what gets built, the scale of projects, where building takes place and how existing stock is treated.

(Fainstein 2016: 1504)

Short (2019) advocated for ‘the right to the city’, whereby:

decisions about what gets built, where, and for whom are made via place-based investing and community control.

Community advocacy should set priorities, and according to Short (2019):

target and engage government, business and investors to steer us away from construction that impedes progress on sustainable development [...].

However, the ability of governments to influence urban redevelopment is the outcome of ‘power relations’, currently dominated by investor expectations (Gironnet *et al.* 2016: 1460). When examining efforts to equate economic prosperity with creativity in Halifax, Nova Scotia, Canada, Rutland (2010: 1175) concluded: ‘This ghost is what financialised urban development looks like.’

Nevertheless, the introduction of sufficiency and solidarity policies, accompanied by stronger urban frameworks and plans that prioritise eco-social considerations, community facilities and affordable housing, accompanied by incentives for adaptation and reuse of existing vacant space, may tilt the power balance in favour of local authorities, especially when supported by ‘carbon budgets’ and pricing. Derived from country per capita allocations, these are important tools to restrain over-building while advantaging adaptation and utilisation of the existing building stock (Hollberg *et al.* 2019). While many local governments lack carbon inventories, especially in the Global South, the most advanced may be encouraged to share their expertise and build capacity as part of their climate finance obligations.

The use of carbon-related financial mechanisms may advantage cities and businesses that reduce their consumption carbon, while offsetting loss of income from financialisation of commercial property. Constraining new commercial and other construction to a level below city and sectoral carbon allocations has considerable potential to generate income via carbon trading and similar mechanisms. Thus, building *less* real estate may become the financial commodity, with reduced demand compensated by growth in profitable property services (IPCC 2022: 5–3).

8. RECOMMENDATIONS

The construction and property sectors have taken a narrow view of decarbonisation, expecting that the Paris (COP21) targets could be met by efficiency, electrification and renewables. This study has revealed its ‘blind spot’ related to sufficiency and solidarity, including the need to ‘shrink and share’ global resource consumption—a root cause of climate change, biodiversity loss and pollution (Ness 2022). The finance and investment sector plays a critical role in achieving this shift.

Climate finance, from a variety of public and private sources, looms high on the COP27 agenda (UNFCCC 2022), as the goal of mobilising US\$100 billion per year for both mitigation and adaptation for ‘developing’ countries has not been met. Thus far, the financialisation of commercial real estate, which *increases* GHG emissions and negative impacts on cities—including those in ‘developing’ countries—seems to have escaped scrutiny. Carbon finance mechanisms offer the potential to turn the current system on its head, advantaging cities, property businesses and communities.

The following policy reforms are recommended for urgent consideration by the United Nations Framework Convention on Climate Change (UNFCCC) and others:

- The UNFCCC should address the conflict between commercial property financialisation and climate finance. It should seek to divert finance from speculative new property to climate mitigation and resilience in the Global South, while reducing investment risk by guarantees and the like.
- Examine the potential of carbon financial mechanisms and markets to advantage cities, governments and businesses that act to constrain consumption, while replacing unsustainable financialisation of property.
- Nationally Determined Contributions (NDCs) should reflect the much heavier responsibility of the Global North to achieve aggressive and immediate cuts in carbon, including that associated with new commercial property.
- By embracing sufficiency and solidarity principles, the construction and property sectors should shrink new commercial construction in the Global North, so resources can be diverted to the Global South for services, infrastructure and climate resilience.
- The Global North should take the lead in establishing national and city-level carbon budgets. These can act as a proxy for resource consumption, be disaggregated to sectoral and building level, and constrain over-building.
- City and local governments should establish policies and frameworks to direct private investment to eco-social needs, with incentives to adapt existing stock rather than new construction.
- Approval authorities should require proponents to provide evidence on the ‘use-value’ of new commercial property (the ‘necessity test’).
- Green rating systems for buildings and precincts should be reformed so they are based upon sufficiency rather than resource efficiency metrics.

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COMPETING INTERESTS

The author has no competing interests to declare.

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