MAKING SENSE OF A **JUST URBAN TRANSITION** FOR INFORMAL SETTLEMENT UPGRADING

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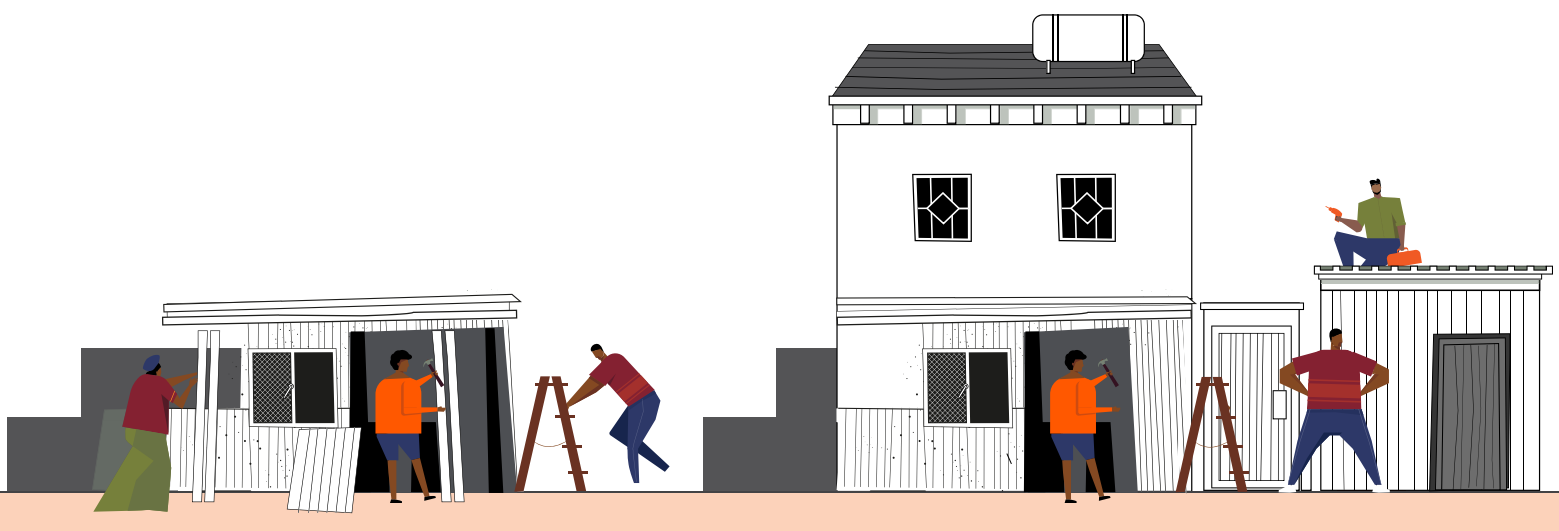

Glossary

Additionality
Additionality generally refers to the distinction between development and climate finance. The term recognises that while climate and development activities should be integrated as far as possible at the operational level, they must be met as distinct international commitments. The distinction arises because development finance is not governed by the same principles as climate finance, or concerned with common but differentiated responsibility for historic and future emissions and consequent climate change impacts.

Circular economy
An economy that is based on the regeneration and reuse of materials and products as a means of continuing production in a sustainable manner.

Green Climate Fund
Established under the United Nations Framework Convention on Climate change, the largest climate fund in the world is mandated to support developing countries realised their Nationally Determined Contributions (NDC) ambitions towards low-emissions, climate-resilient pathways as well as adaptation and mitigation practices.

Energy poverty
Commonly understood as a situation in which a person has difficulty obtaining the necessary energy in their home to meet their basic needs because of inadequate resources or living conditions.

Intersectionality
How multiple aspects of the identity of an individual or a group combine, overlap or intersect and therefore shape which people may be impacted by a change in policy. Examples of multiple identify factors include: race, gender, age, sexuality, income, mental or physical (dis)ability. Intersectionality is a key consideration in Gender-based Analysis Plus (GBA+), which is an analytical tool used in considering how policy (or policy changes) affect different groups of people.

Resilience
The capacity or ability of a group or individual to anticipate, accommodate, cope, adapt or transform when exposed to specified hazards. When applied to urban contexts, resilience is the ability of urban centres and the systems on which they depend to anticipate, reduce accommodate or recover from the effects of a hazardous event in a timely and efficient manner.[1]

Sustainable Urban Drainage System
Sustainable urban drainage systems (SUDS) are usually designed to mimic natural drainage as much as possible encouraging filtration of water back into the ground as close to the sources as possible encouraging its filtration, attenuation and passive treatment. These systems are considered are often considered in challenging environments such as informal settlements (especially on steep slopes) and refugee camps.

Zero waste
Entails reducing waste that goes to landfill as much as possible through re-using items, recycling plastics, paper and other materials, composting etc. Zero waste principles focus on systematically minimising and preventing waste that all products are repurposed or reused.

1 This definition is adapted from: Satterthwaite, D., Archer, D., Colenbrander, S., Dodman, D., Hardoy, J., Mitlin, D. and Patel, S., 2020. Building resilience to climate change in informal settlements. *One Earth*, 2: 44.

INTRODUCTION

The urgency with which climate change must be addressed through decarbonisation is a global reality and imperative. As one of the largest carbon emitters globally, South Africa faces the dual challenge of both a profound decarbonisation drive that is steeped in risk and lifting a significant portion of its population out of poverty.[2]

Cities are responsible for an estimated 70% of global greenhouse emissions. Because of the concentration of economic activity and population, cities are places where climate impacts, risks and opportunities are aggregated.[3] Growing levels of urbanisation, particularly in sub-Saharan Africa where urbanisation coincides with growing informalisation, compounds the challenge. In South Africa, as in other countries, attention is increasingly being given to the opportunities and challenges relating to the decarbonisation imperative in urban contexts.

People living in informal settlements contribute least to climate change because of their low rates of consumption and resource use. Furthermore, informal housing materials, which do little to protect residents from the effects of extreme weather and other climate-related disasters, are light on the urban landscape and usually dense in comparison to housing in formal areas of cities.

Yet, despite being least responsible for the greenhouse gas emissions, informal settlement communities are disproportionately affected by the manifestations of global warming in the form of unpredictable extreme weather and natural disasters. Risk and vulnerability are highly concentrated in these areas. Moreover, many informal settlements are located on floodplains, alongside rivers or on steep slopes in areas to which the state has not extended risk-reducing infrastructure that could bolster resilience.[4]

There is a risk that the systemic exclusion from urban development and decision-making experienced by informal settlement residents is perpetuated as government and other stakeholders pursue high-level agendas related to strategies to decarbonise our economy and make society climate-resilient.

Funded by the Canada Fund for Local Initiatives (CFLI), Isandla Institute engaged in a 'sense-making' initiative to explore the possible implications of an emerging 'just urban transition' narrative in South Africa for a progressive agenda to upgrade informal settlements.

South Africa faces the dual challenge of both a profound decarbonisation drive that is steeped in risk and lifting a significant portion of its population out of poverty.

2 South Africa is ranked the world's 14th biggest emitter of greenhouse gases (GHGs). Its carbon emissions are largely due to the country's reliance on coal. (source: carbonbrief.org)

3 World Bank 2023. URL: https://www.worldbank.org/en/news/press-release/2023/05/18/cities-key-to-solving-climate-crisis.

4 Satterthwaite et al 2020: 143-156.

About the project

The immediate impetus for the project was the launch in 2023 of a strategic document that is meant to guide metropolitan municipalities in driving the national agenda for a just transition. Pathways for a Just Urban Transition in South Africa (referred to below as the JUT Framework).[5] Isandla Institute's project therefore sought to unpack the implications and strategic opportunities of these proposals for informal settlement upgrading policy and practice.

Following a **'sense-making'** approach, we engaged diverse stakeholders, including residents of three informal settlement communities (located in Cape Town), government representatives, civil society groups working with informal settlement communities, environmental justice organisations, resilience and climate change experts and 'just transition' experts. We held a series of engagements over several months to co-create a shared understanding of the possibilities, tensions and implications of the just urban transition for upgrading informal settlements. Furthermore, the project explored ways in which informal settlement communities and municipalities can meaningfully engage each other and define realistic opportunities to transform their lives and livelihoods – in other words, what deliberative engagement means in practice.

The project has resulted in two knowledge products: this paper, which distils the essence of the research and engagements, and a deliberative engagement tool[6] to assist municipalities and informal settlement communities to jointly consider and weigh pathways to incrementally transform informal settlements into liveable, safe, dignified, vibrant and resilient neighbourhoods.

The term, **'sense-making'** originates in the field of organisational studies by Karl Weick and has since been applied to multiple context. It refers to how we structure the unknown so that we can act in it.[7] This approach was chosen because it allows us to think, act and 'sense' our way forward in a complex, unstable, unpredictable world. It is useful if we want to engage using collaborative processes through which a shared awareness and understanding is created from different individuals' perspectives and interests, as is the case in this project.

Sensemaking involves the creation of a 'map' based on the understanding of the world as complex and changing. It involves an iterative process comprised of conversation/ exchange, action, refinement, testing, and further adaptation and so on: "Sensemaking involves coming up with a plausible understanding—a map—of a shifting world; testing this map with others through data collection, action, and conversation; and then refining, or abandoning, the map depending on how credible it is."[8]

About this document

This paper presents a synthesis of the conversations we have held over the course of the project. The insights and perspectives shared have emerged from lively, constructive debates. They do not necessarily present a consensus, nor are they meant as a 'how to' guide. They are neither fully formed nor definitive, but are presented in the spirit of stimulating further conversations to inform improved practice.

The paper consists of three parts. First, we introduce the just urban transition and touch on the possible implications for the progressive agenda to upgrade informal settlements, suggesting points of intersection, alignment, tensions and key challenges.

5 Cartwright et al. 2023. *Pathways for a Just Urban Transition in South Africa*. World Bank. The document was developed by a team from the African Centre for Cities at the University of Cape Town in collaboration with the PCC and National Treasury's Cities Support Programme.

6 Isandla Institute.2024. A just urban transition for and with informal settlements: the art of deliberative engagement.

7 Weick, K. E. 1995. *Sensemaking in organizations* (Vol. 3). Sage.

8 Anciona, D. 2012. Framing and Acting in the Unknown. S. Snook, N. Nohria, & R. Khurana, *the handbook for teaching leadership*, 3(19): 198-217 (quote on p.3).

Secondly, we suggests five components which we (and project participants) believe are of particular relevance to a bottom-up approach to informal settlement upgrading informed by a principles contained in the JUT Framework. Since we approach a just urban transition as a holistic systems change, it is important to bear in mind that these areas involve many cross-cutting elements.

A meaningful social compact explores what the imperative for "procedural justice" implies for engagement between communities and (local) government in particular.

Essential services and infrastructure focuses on the imperative to advance human rights and dignity through essential service provision (sanitation, water and waste removal) as well as energy infrastructure whilst taking the long-term sustainability requirement into account.

Land, tenure and housing explores issues related to access to land and spatial justice, relocation of informal settlements (or parts of them) classified as living on land that is "uninhabitable"/hazardous or private, questions related to tenure as well as whether a just urban transition can unlock (self-build) housing construction at scale in a manner that is also sustainable and climate resilient.

Livelihoods and economy considers how such an approach may help inform a stronger emphasis on local livelihoods and economic opportunities, both as part of the upgrading process and as an intentional outcome of settlement upgrading.

Partnerships, governance and funding identifies the importance of community-centric partnerships, what a just urban transition approach means for governance (particularly government capability) and how it can (better) resourced.

The final part of the document draws out some key insights and implications for an approach that recognises that informal settlement upgrading is fundamentally about bringing about vibrant, safe, resilient neighbourhoods. It concludes with some overarching observations to embed a just urban transition approach into informal settlement upgrading policy and practice.

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WHAT IS A JUST URBAN TRANSITION?

In 2022 the Presidential Climate Commission (PCC) produced the *Just Transition Framework for South Africa*, which sets out policy measures and commitments to decarbonise the economy whilst ensuring that 'no one is left behind' through the job losses and knock-on economic affects that are expected. It focuses primarily on carbon intensive sectors such as coal mining, the automotive industry, agriculture and tourism. The Framework acknowledges that further work in other sectors is needed and that a spatial lens needs to be applied,

> **… considering spatial disparity as an important binding constraint in South Africa's inclusive development and resilience to shocks, including climate shocks. South Africa's spatial exclusion, rooted in the apartheid legacy (e.g. in the form of townships and informal settlements on marginal and vulnerable lands), continue to disadvantage certain groups, undermining both the resilience of affected communities and the urban dividend in South Africa's development.**

It further recognises that climate change impacts are disproportionately felt across society and that informal settlements in particular need support to enhance their climate resilience.[9]

The Just Transition Framework places great emphasis on the notion that the energy transition must be just or fair. Drawing from a body of literature in the spheres of environmental, energy and climate justice,[10] it refers to three inter-dependent dimensions of justice: distributive, procedural and redistributive justice.[11]

Distributive justice: Refers to how risks and opportunities resulting from a transition are distributed must be distributed fairly, cognisant of race, gender and class inequalities. In particular, it insists that workers and communities impacted do not bear the overall burden of the transition, but rather that these are carried by those historically responsible for harms.

Restorative justice: Aims to address historical damages against individuals, communities and the environment focused on rectifying or ameliorating conditions for "harmed or disenfranchised communities". This is about redress.

Procedural justice: Equal voice for all. This is fundamentally about the opportunity for people to have an equal say in decisions which affect them. In the South African context this includes, "workers, communities and small businesses [who] must be empowered and supported… with them defining their own development and livelihoods."

9 Ibid: 19.

10 This literature includes: Patel, M., 2021. Towards a just transition (No. 1). Technical Report. Cahill, B., Allen, M.M., 2020. *Just transition concepts and relevance for climate action: A Preliminary Framework.* Centre for Strategic and International Studies (CSIS) and Climate Investment Funds (CIF), Washington, D.C. McCauley, D. and Heffron, R., 2018. Just transition: Integrating climate, energy and environmental justice. Energy policy, 119: 1–7.

11 These definitions have been adapted from: PCC.2022: 13, 14.

A specific approach to decarbonising our cities in a socially and environmentally just manner emerged, because no clear attention had been given to the role of South Africa's six metropolitan municipalities, where much of the population as well as the economy is concentrated. The JUT strategic document interprets core principles of the Just Transition Framework for urban processes.

It proposes steps that metropolitan municipalities can take to meet South Africa's carbon-emission targets in a manner that is socially and environmentally just. It is estimated that the six metros alone could contribute to a 40% reduction in the country's carbon emissions peak if they were to reach the mitigation targets contained in their climate strategies.[12] The strategy is aimed specifically at the Metros, premised on an understanding that these will lead the way for smaller cities and towns.[13]

The JUT Framework argues that in responding to climate change, cities need to appreciate the profound lack of dignified living conditions as both an environmental concern and a justice concern.

> **In its narrowest form, climate justice recognises that most human-induced climate change has been caused by wealthy people and high-income countries, but is most threatening to the lives of the poor and the marginalised. A more expansive just transition perspective combines climate change responses with efforts to enhance livelihoods, human rights and the restoration of nature.[14]**

Origins of South Africa's 'Just Transition'

The term, 'just transition' emerged out of the International Trade Union movement in the 2000s. The term was mentioned in the Paris Agreement, emerging from successive rounds of international climate negotiations in which South Africa took a lead in advocating for its inclusion. In South Africa calls for such a 'purposive transition' include Trade union federation COSATU which signalled its support for such a process in 2009 at a time when environmental groups were also advancing the concept.

Since 2019, countries as diverse as Canada, in the Global North and India and Colombia in the Global South have adopted Just Transition frameworks and set up commissions somewhat equivalent to the PCC to oversee their transitions.

It is estimated that the six metros alone could contribute to a 40% reduction in the country's carbon emissions peak if they were to reach the mitigation targets contained in their climate strategies.

12 Cartwright et al. 2023: 5.
13 Ibid: 10.
14 Ibid: 13.

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What is a 'just transition'?

Simply put, a 'just transition' is a process of building national consensus around the need for a socially just transition away from carbon dependency and guiding the process of reaching those targets. Understandings of what this term means vary depending on context, and the term has been deployed by diverse groups and actors. including governments, environmental groups, and the private sector. For instance, a just transition is often framed as involving a systemic shift: from an economy based on fossil fuel and natural resource extraction and waste, to a regenerative economy.[15]

These approaches commonly consider the need to tackle three key challenges:

1. **Combatting environmental destruction and pollution;**
2. **Creating jobs and economic opportunities; and,**
3. **Addressing social justice.**

Figure 1 shows what a just transition entails. The PCC's approach is similar in that it suggests that South Africa's just transition must contribute to the goal of decent work for all, social inclusion and the eradication of poverty and puts people (especially the most vulnerable groups in society) at the centre of decision-making.[16]

15 For example, the 'open agenda on the just transition' developed by Life after Coal Campaign, Earthlife Africa, the Centre for Environmental Rights and Groundwork (2020) includes calls for a shift to sustainable energy to replace fossil fuels, the rehabilitation of land and water ruined by coal mining, a new health system to benefit all and open democracy. URL: https://lifeaftercoal.org.za/wp-content/uploads/2022/04/Life-After-Coal-Just-Transition-Open-Agenda-Book-May-2022.pdf

16 PCC. 2022.

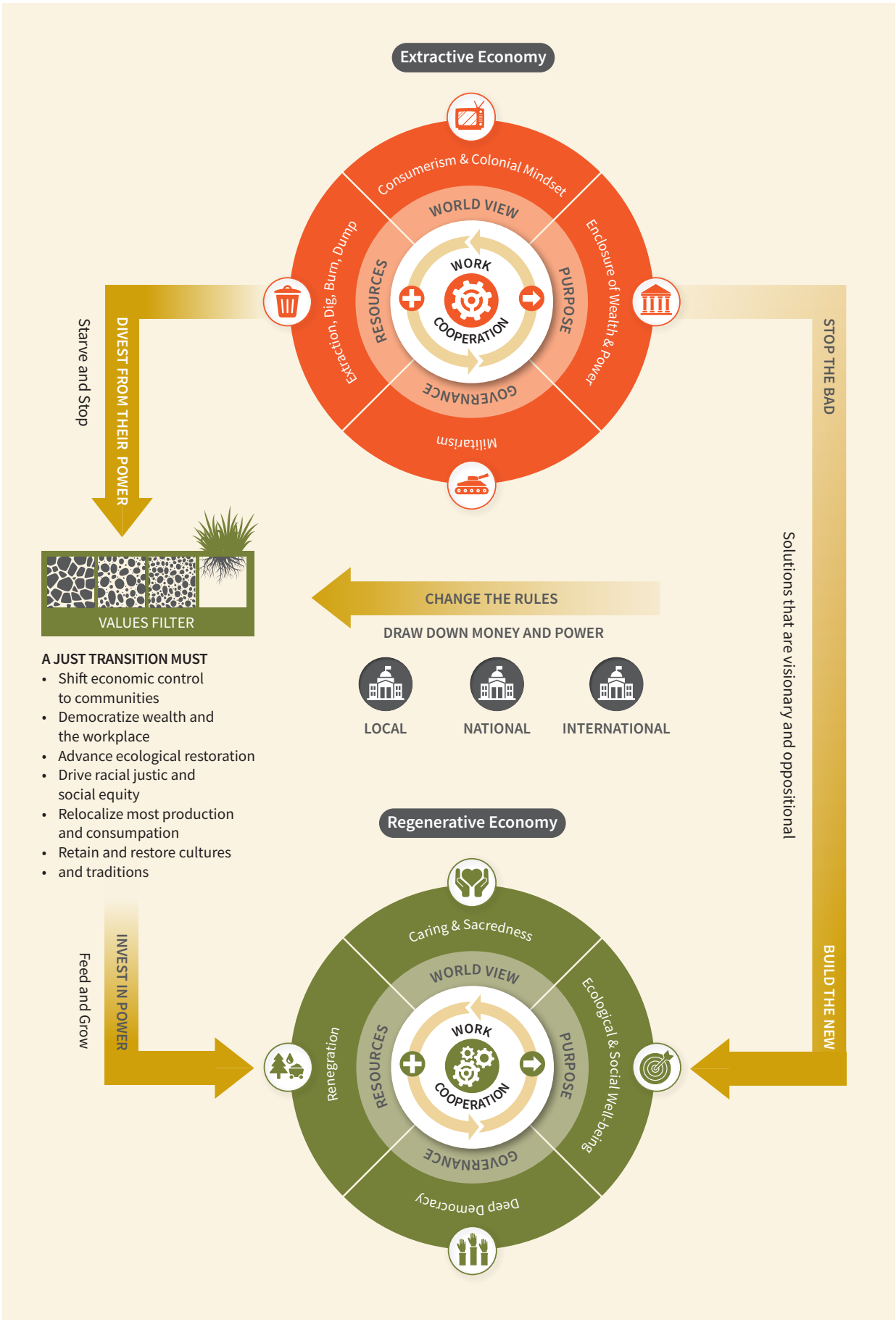

Figure 1 What is a just transition?

Adapted from Climate Justice Alliance (www.climatejusticealliance.org)

The JUT Framework identifies specific technological opportunities that can be embedded in informal settlement upgrading.

How do informal settlements (and upgrading) feature in the JUT Framework?

The JUT Framework takes an explicit position on informal settlement upgrading as a central feature of a just urban transition:

> **Upgrading informal settlements can offer protection from climate risk while also addressing historical legacies of inequality.[17]**

Informal settlement upgrading is proposed as a way to build the resilience of marginalised communities, thus fulfilling both dimensions of restorative and distributive justice dimensions.[18]

The JUT Framework notes, however, that this must occur in a manner which is "procedurally just" through, for example, "consultation", "service-delivery partnerships" that are driven by communities themselves, and "collaborative planning".

The JUT Framework identifies specific technological opportunities that can be embedded in informal settlement upgrading. This includes combining green technologies, such as insulation, photovoltaic panels and bio digesters,[19] with building materials which are low in carbon as more sustainable and functional alternatives to zinc panels and concrete foundations, which are currently the norm. Climate adaptation measures, such as flood barriers, sustainable urban drainage systems (SUDS) and greening to combat heat and drought[20] can also be pursued. Furthermore, investments in human settlements should be linked with localised energy, waste and sewerage management and work creation.[21]

How practicable such suggestions are and how they relate to on-the-ground realities of informal settlement communities have formed a primary focus of the project and will be discussed in more detail in section 4. First, we consider in broad terms the possible implications of a just urban transition approach for informal settlement upgrading.

17 Cartwright et al. 2023: 33.

18 Ibid: 13, 14.

19 A biodigester system biologically digests or breaks down organic matter. It does so either anaerobically (without oxygen) or with oxygen (aerobically). In a sanitation system based on this technology, living microorganisms are used to degrade solid and liquid waste and convert it into useful by-products like carbon dioxide, methane and water in a septic tank system. In some cases, the biogas can be used for cooking.

20 Cartwright et al. 2023: 30.

21 Ibid: 31.

MAKING A JUST URBAN TRANSITION MATTER FOR INFORMAL SETTLEMENTS

South Africa's policy on informal settlement upgrading, as captured in Breaking New Ground and the Upgrading of Informal Settlement Programme (UISP), is progressive, placing significant emphasis on development that is in situ, incremental and participatory. It envisages not only providing security of tenure and essential services to informal settlements, but also the eventual consolidation of informal dwellings into (more) formalised top structures, so that sustainable neighbourhoods will be created.

Twenty years on, there is wide acknowledgement that informal settlement upgrading appears stuck and that the ambitious ideals contained in the UISP remain unattained. Informal settlement upgrading practice has been partial (focusing primarily on the provision of 'serviced sites') and patchy at best. This is further discussed below, under trends in informal settlement upgrading.

The development of a new White Paper on Human Settlements currently underway provides a strategic moment to shape policy to respond to the dual challenge of decarbonising cities whilst uplifting millions from poverty. It would need to enable a non-linear, flexible approach to upgrading: one that is capable of addressing complex, yet pressing challenges around access to land, the realisation of basic rights and dignity, the protection of biodiversity and resource scarcity and community empowerment, so that informal settlement residents have a seat at the decision-making table.

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The recently released draft White Paper reemphasises a progressive, developmental orientation towards informal settlements and informal settlement upgrading, noting that informal settlements are a "permanent feature of the urban landscape" and "home to an important part of the urban poor".[22] At the same time, municipalities are encouraged to do more to prevent informal settlement formation by containing the spread of "illegal occupations."[23] Disappointingly, the draft White Paper raises the issue of climate change towards the end of the document, more as an add-on rather than a strategic orientation guiding human settlements planning and development. None of the proposals related to informal settlement upgrading contained in the JUT Framework are reflected or critically engaged with.

So what value does a just urban transition approach bring to informal settlement upgrading? There are a number of ways in which a just urban transition approach intersects with, and potentially augments, informal settlement upgrading:

1. There is significant alignment in underlying principles and modalities. In theory, upgrading (especially incremental upgrading) is anticipatory and can adapt to and build resilience to future disasters.[24] Other underlying alignments include the value attached to the involvement of informal settlement communities in development initiatives (e.g. 'procedural justice'/social compact), the focus on vulnerability, risk and rights, the emphasis on livelihoods and economic opportunity, and the value attached to partnerships. However, many of these principles and modalities are yet to be promoted effectively and at scale in informal settlement upgrading. As such, a just urban transition approach may give further impetus and meaning in this regard.

2. In suggesting ways to reduce carbon dependency and address resource scarcity through localised, bottom-up initiatives, a just urban transition approach could augment, enhance and accelerate 'conventional' service delivery – by offering alternative affordable technologies and service delivery modalities, which make sense and are considered just and advantageous for those living in informal settlements

3. A just urban transition is not just about energy, but about a holistic systems change. Currently, renewable energy-focused initiatives in informal settlement communities are receiving more attention both from government and CSOs active in this sector than other initiatives. This is to be expected within a context of broader shifts in energy provision and procurement that are shifting the focus towards localised solutions. However, JUT offers an opportunity to 'stretch' this focus to other development realities (jobs, sanitation, water, waste, roads, housing) which also require urgent attention, and to do so through a systems approach. Thus, applying a lens which brings to the fore partnerships and systems approaches could be helpful in unblocking solutions to some complex challenges related to informal settlement upgrading.

22 Republic of South Africa. 2024. Draft White Paper for Human Settlements: 47.

23 Ibid: 49.

24 Satterthwaite et al. 2020: 148.

4. It is clear that efforts to steer the country towards a just transition are taking place against the backdrop of a chaotic or 'disorderly' transition, in which those who can afford it scramble to secure access to limited resources and procure self-generated or renewable power.[25] The likely outcome, as many note, is greater social injustice and exclusion, creating islands of affluence amid greater marginalisation and exclusion for poorer South Africans. Furthermore, critics of South Africa's Just Transition Framework say it does not go far enough in calling for and planning carbon emission reductions, since South Africa is expected to warm at twice the global average and thus has much to lose if global emissions targets are missed.[26] Against a backdrop of best and worst case scenarios that could result from our inevitable energy transition, increased informal settlement formation may accompany job losses, affecting certain areas of the country more than others. Equally, some municipalities have a greater capacity than others to adapt to the loss in revenue accompanied by a chaotic uptake of solar power by affluent consumers, which has an impact on their ability to provide services to and upgrade informal settlements. The causal link between the likely effects of these broader level shifts and the growth of both informal settlements and service provision backlogs implies that greater attention must be directed to getting upgrading right at scale.

Critically, a just urban transition approach must avoid adding another layer of complexity to an upgrading system, where overburdened local government struggles to implement what has been planned and promised to communities. Equally, it must avoid adding another layer of expectation for informal settlement communities already stretched to the limit in their struggle to access basics, such as toilets and solid refuse removal.

In our engagements, participants argued that one of the biggest stumbling blocks to a coherent, scaled-up approach to informal settlement upgrading is the lack of a clear, common vision for informal settlements and the upgrading process. In part, this relates to the ongoing stubbornness around housing, linked to political will and the inability of politicians and other leaders to come to terms with informality. Another factor is the low levels of trust between municipalities and informal settlement communities.

Reviewing informal settlement upgrading through a just urban transition lens may help to overcome these challenges. Section 4 explores what this may mean in relation to specific components of informal settlement upgrading.

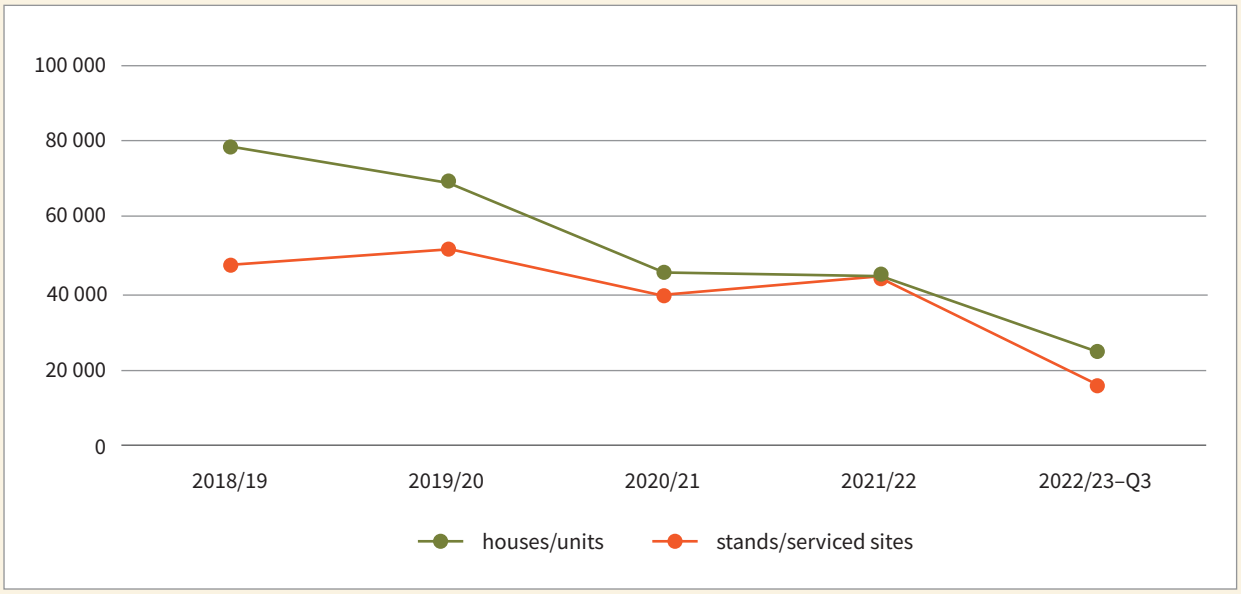
Some municipalities have a greater capacity than others to adapt to the loss in revenue accompanied by a chaotic uptake of solar power by affluent consumers.

25 Swilling, M. 2023. Massive bottom up response to the power crisis sees spike in private energy generation. *Daily Maverick*.

26 For example, the Centre for Environmental Rights (CER) has raised concerns that South Africa's legislation on climate change does not go far enough on addressing carbon emissions. (source: Mathe et al. 2024. *Who has the Power?* Open Secrets: 62. URL: https://www.opensecrets.org.za/energy-profiteers/)

Trends in informal settlement upgrading

1. **There has been sharp increase in the formation of new settlements alongside decreased state spending on formal housing delivery.**[27] This has been a result of economic crisis, with deep impacts at household level. Growth in informal settlement formation (especially since the COVID-19 pandemic), should be set against a significant reduction in the delivery of housing opportunities over the same period. In its 2023/24 Annual Performance Plan, the National Department of Human Settlements (NDHS) shows a substantial decline in the annual delivery of housing units and stands/serviced sites since the 2018/19 financial year.[28] While data for 2022/23 financial year included delivery up until the third quarter, the sharp drop in the delivery of stands/serviced sites is of particular concern, given the government's expressed commitment to prioritise the roll-out of the UISP, as noted below.



Graph 1 Housing delivery 2018/19–2022/23

Source: NDHS Annual Performance Plan 2023/24, p.19

2. **Routes to access public housing, which were already limited, are increasingly narrowing for poor and working-class South Africans.** As public funding for housing programmes has been reduced, (if not in monetary terms, then in real terms due to inflationary pressures), eligibility criteria for subsidised housing have narrowed considerably over the past two decades. In practice, few who are on the housing database qualify for state-delivered housing apart from the elderly, disabled, child-headed households, and (until recently) military veterans.29 However, there continues to be a mismatch between peoples' expectations of housing delivery and what the state delivers (and in some cases, continues to promise). In a context of increasing state austerity, this dual effect (of less money for housing delivery and the narrowing of eligibility criteria) means that there are no real housing opportunities for the majority of people who are poor.

27 There has been a notable growth in the formation of new settlements since the COVID-19 pandemic and associated economic downturn. In the Cape Town metropolitan area alone, there were 497 established informal settlements and 186 newly established sites occupied during the Covid-19 pandemic. Nationally, the number of informal settlements is now estimated to be at least 3,400 (source: NDHS. 2021/2023. Annual Performance Plan). (Source: www.gov.za/sites/default/files/u19/Approved%202023-24%20APP-1.pdf)

28 NDHS. 2021/2023: 1.

29 A directive issued by the NDHS (April 2021) confirmed a shift away from top structures towards the provision of serviced sites due to budgetary constraints except for "four newly prioritised categories": the elderly, military veterans, persons with disabilities and child-headed households (backyard residents and persons longest on a waiting list were later added).

3. **The UISP, which preferences in situ upgrading where possible, has been given greater emphasis in recent years, yet there is little evidence that this has resulted in accelerated upgrading processes.** In 2020, a NDHS directive instructed Provinces and Metros to limit the construction of new housing projects as much as possible and reorient their resources towards UISP implementation (Phase 1-3). Reasons cited for this reorientation included the economic recession and the COVID-19 pandemic.[30] Decreased state spending on housing has had the effect of placing greater emphasis on the UISP, which prioritises in-situ upgrading, where possible. In practice, however, delivery has proved uneven and frequently results in a serviced sites orientation or emergency basic service provision (such as the provision of portable toilets to communities).[31] The shift to a 'sites and services' approach has left many civil society organisations and activists in this sector demoralised by this lack of progress – which is also evident in Graph 1 above.

4. **The delinking of the housing consolidation (or phase 4) from the upgrading process places greater emphasis on self-build.** Amongst the reasons for the shift away from the housing consolidation phase is that residents would need to qualify for public housing opportunities to initiate this phase. The delinking of housing consolidation from informal settlement upgrading processes implies that self-build housing construction is understood to be the way forward. However, given difficulties poor households face in qualifying and/or accessing housing subsidies or necessary micro-finance they need to invest in quality materials for top structures, suggesting that additional state support is needed. This support could include grants, investment in self-build subsidies as well as the enhancement of implementation capacities by municipalities and provinces to allow poor households to access these subsidies.[32]

5. **Involving communities in decision making, visioning and implementation is challenging and (local) government is ill-equipped to do this.** The National Housing Code states an intention of upgrading "empower communities to take charge of their own settlements" and stipulates that "beneficiary communities must be involved throughout the project cycle."[33] Allocation for social facilitation represents 3% of the total upgrading cost and can cover activities such as socio-economic surveys, conflict resolution, facilitated community participation and housing support centres. However, the 'community empowerment' aspect of the UISP is often poorly implemented and underfunded. Factors standing in the way of meaningful community engagement and participation include: (1) a lack of innovation in municipal leadership, (2) a tendency for local government to work in silos, (3) a pervasive performance-oriented culture in local government, where performance is determined and assessed based on quantitative outputs (e.g. number of standpipes provided) rather than qualitative results (e.g. positive working relationship with informal settlement communities). Furthermore, informal settlement communities find complex internal politics at municipal difficult to navigate. while complex community dynamics and local interests in informal settlements also impedes engagement in some cases.

6. **Informal settlement upgrading is often approached on a project-basis, rather than as a programmatic, incremental approach.** Although cities need to have a city-wide informal settlement upgrading strategy and plan that addresses the underlying issues and manifestations of housing poverty in a strategic and comprehensive manner, in reality informal settlement upgrading tends to be 'projectized'– not unlike other strategic development initiatives. This means upgrading is defined and executed in accordance with predetermined (usually quantitative) inputs, deliverables, budgets, timeframes and performance goals. As a result, 'soft' or less tangible development aspects, such as improving livelihoods, building community cohesion and a sense of pride in place, are ignored and opportunities for learning and replication/augmentation are missed.

30 Department of Human Settlements. Reprioritisation of draft Human Settlement Development Grant (HSDG) business plan targets. Letter dated 30 September 2020.

31 According to the NDHS, between 2021 and 2022 Metros provided a total of 3 596 sites with electricity, water and sanitation. Parliamentary briefing (10 Aug 2022) Informal Settlements Upgrading Grant: National Treasury & Department of Human Settlements. (https://pmg.org.za/committee-meeting/35301/)

32 Isandla Institute. 2023. Institutionalising a Housing Support Centre Model to enable self-build and Isandla Institute / CAHF. 2023. Investigating the value and feasibility of using public finance for self-build housing processes in South Africa.

33 DHS. 2009. Upgrading of Informal Settlements Programme. National Housing Code. Part 3. Volume 4: 16.

7. **Providing security of tenure is one of the core aspects of what upgrading policy aims to deliver, however, in reality, municipalities struggle to deliver on promises.** Local government leadership and long-term commitment are particularly crucial in resolving or reforming the issue of land tenure, which is a minimum precondition for unlocking community-led upgrading. One reason cited by government is the difficulty in tracing original beneficiaries of title deeds. However, this issue not only pertains to title deeds, but to the complexities around land proclamation. The effect is that while residents of informal settlements often invest in the inside of their homes, many are reluctant to make longer-term investments in building homes or in neighbourhood projects, because they do not have security of tenure.

8. **Despite provisions in policy calling for a 'sustainable livelihoods approach' to upgrading, this is seldom reflected in upgrading plans.** The National Upgrading Support Programme (NUSP) of the NDHS was set up in 2008 to provide capacity building and technical support to municipalities in rolling out informal settlement upgrading. The NUSP incorporated an approach that supports sustainable livelihoods.[34] According to the NUSP, "a livelihood is considered sustainable when it can cope with and recover from external stresses and shocks." Furthermore, the NUSP states that "improving people livelihoods is about improving living conditions, quality of life and prospects for the future."[35] Municipalities are expected to submit business plans for their upgrading initiatives, which contain a number of key features, one of which is a sustainable livelihoods strategy for the settlement. However, this feature is seldom reflected in upgrading plans submitted to NDHS.

9. **Many settlements (or parts of them) are located on land that is unsuitable for habitation or privately owned, yet alternative land and housing options are limited and complex, time-consuming and costly to unlock.** The NDHS acknowledges that the majority of 1500 settlements considered as part of mid-term upgrading targets by 2024, are located in "undesirable areas which are prone to hazards such as floods, dolomites, strong winds, hilly topography, etc.", making these areas "prone to housing emergencies."[36] The pressure on available land is expected to increase due to rapid urbanisation and the imperative to protect natural areas linked to mitigating the effects of climate change. The complexities of identifying and unlocking well-located urban land to provide poor and low-income households tenure security and affordable housing options are well-known, suggesting that relocation to alternative (and suitable/well-located) land is not an obvious or immediate alternative.

10. **People living in informal settlements employ resilience strategies, but more data and access to local knowledge is needed.** Extreme weather across the Western and Eastern Cape in 2023 and floods in Durban in 2022 displaced thousands of residents of informal settlements living in areas vulnerable to flooding. The Durban floods in particular highlighted the importance of Metro-level resilience strategies (including early warning systems) in mitigating the worst effects of such disasters for informal settlement residents. Following floods, fires and other disasters, residents of informal settlements frequently rebuild where they were before. This suggests that the state does not understand the factors informing peoples' decision making and confirms the importance of contextual, quantitative and qualitative data. For instance, in the City of Johannesburg, some households had coping mechanisms such as repairing shacks following disasters related to extreme weather, but limited means to address underlying causes of vulnerability, such as fragile structures.[37]

34 NUSP. 2015. Introduction to Informal Settlement Upgrading. Course and Training Materials.

35 Ibid: 3.

36 DHS. 2021. Baseline Evaluation of Informal Settlements Targeted for Upgrading in the 2019-2024 MTSF, Pretoria: Department of Human Settlements.

37 Nenweli, M.M.R. 2015. The adaptive capacity of households in informal settlements in relation to climate change: Two cases from Johannesburg (Doctoral dissertation).

A JUST URBAN TRANSITION APPROACH TO INFORMAL SETTLEMENT UPGRADING

The following components are not offered in the form of a guide, nor as a linear approach to upgrading. Rather, we provide key insights which we hope will serve as starting points for conversations in each of these key thematic areas. We acknowledge that circumstances within each locality will vary, including how communities are specifically impacted by climate change and other risks. Informal settlements also differ in relation to the degree of upgrading that has been previously achieved or has been planned, as well as available resources for upgrading-linked investments.

A meaningful social compact[38]

A core aspect of informal settlement upgrading is an emphasis on communities as active agents with critical roles to play in the planning, implementation and maintenance of development interventions. [39]The Upgrading of Informal Settlements Programme (UISP) refers to a 'community partnership', involving 'extensive and active community participation'.[40] Subsequently, this has been termed a 'social compact', to emphasise that it goes beyond community consultation to a partnership approach between (primarily) the municipality and the relevant community.[41] Such an approach implies that community knowledge, needs and aspirations drive the process, that communities (co-)determine development outcomes and modalities, and that choices and trade-offs are an explicit part of the conversation.

In reality, community participation in informal settlement upgrading is often poorly implemented and underfunded[42] and the true implications of a social compact are poorly understood, let alone enabled.

With its emphasis on *procedural justice*, a just urban transition approach aligns with the underpinnings of the social compact. In fact, the social compact also lies at the heart of *distributive justice* (by deliberating on the distributive impacts of decisions – or lack thereof, both within the settlement and within the municipality) and *restorative justice* (by prioritising addressing the underlying conditions and realities of spatial marginalisation and exclusion). Thus, establishing a meaningful social compact serves as the cornerstone for a just urban transition aligned approach to informal settlement upgrading and stands as the pivotal element across all phases of planning, decision making (including resource allocation) and implementation. It is therefore important that sufficient time, attention and resources are directed toward fostering this solid foundation.

38 Within the context of informal settlement upgrading, a 'social compact' is an agreement in which the roles and responsibilities of different actors as well as development objectives are defined. By calling for a 'meaningful social compact', we reiterate the importance of deep engagement with affected communities, which includes joint decision-making; such a process can include diverse actors through partnerships, including civil society and the private sector.

39 DHS (Department of Human Settlements) (2009) "Upgrading of Informal Settlements Programme". Part 3. Volume 4 of the National Housing Code; SACN (South African Cities Network) (2014) From housing to human settlements: Evolving Perspectives; NUSP (2015) Introduction to Informal Settlement Upgrading. Course and Training Materials.

40 DHS. 2009: 15.

41 For example: CSP. 2017. *Programme Management Upgrading Toolkit. Preparing to scale up informal settlement upgrading in South Africa*: 128–129.

42 Rebel Group (2017) Human Settlements Evaluation Synthesis: Summary Report. Prepared for DPME.

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Things to consider

1. **A social compact in/for informal settlement upgrading is characterised by deliberative engagement.** Deliberation means that outcomes or solutions are not predetermined, but subject to consideration and negotiation between informal settlement residents and the municipality (with possibly other stakeholders drawn into the process, as and when appropriate). In the process, different insights and sources of knowledge are brought to bear and engaged with. Decisions about essential service options and service delivery modalities, development priorities, partnerships and resource allocations are all subject to deliberation. Deliberation builds democratic skills and contributes to empowerment.

2. **A just urban transition, rooted in 'deep democracy' from grassroots level, necessitates inclusivity,** even involving those perceived at the outset of the process as potentially hostile to authority. This potentially contested and time-consuming process goes beyond a technocratic tick-box exercise, encouraging participants to share their stories and experiences while ensuring their voices are not lost further along this process.

3. **Local government, as a key partner must be willing and capacitated to listen to the proposals of informal settlement communities.** As mentioned, deliberative engagement as an approach is agnostic about outcomes or solutions, rejecting imposed technocratic solutions. Investment in pathways aligned with community requirements becomes imperative, requiring time, skills and motivation. Part of the motivation comes from how performance is assessed. A shift is required in the way in which official performance is evaluated with greater emphasis on qualitative rather than quantitative outcomes. There is a need to link key performance indicators (KPIs) to efficacy around how partnerships with organised communities are forged and maintained.

4. **Accountability, along with communication and transparency, is an essential aspect of this process.** Without accountability, trust is eroded. When decisions are made through deliberative engagement and responsibilities are assigned, stakeholders (whether from the municipality or from the community) need to take responsibility for their actions and report accordingly. For representatives of informal settlement communities who are part of an elected community structure to enact the social compact, accountability to the wider settlement is key.

5. **Community-generated data emerges as a powerful tool for planning, decision-making, and budgeting.** Initiatives like Asivikelane demonstrate the success of using community-generated data to advocate for service delivery across South African settlements.[43] This data holds potential for encouraging accountability between all actors involved, early-warning systems and designing partnerships where real-time data informs the way risk is defined – potentially ensuring that risk is qualified on the basis of data coming in, rather than being qualified by technocrats.

6. **Understanding and engaging with complex and evolving local dynamics** within specific contexts is a particularly challenging aspect of the processes required as part of this approach. Researchers, CSOs and municipal officials report that even well-intentioned interventions can result in unintended consequences, because these complexities have not been adequately understood.

7. **Any upgrading intervention must proceed from a deep engagement with gender-based analysis and intersectionality on the ground.** Social dynamics which reproduce gender inequality lead to situations where women, often leading households in informal settlements, bear the brunt of extreme weather consequences. While context-specific research is necessary, CSOs working with informal settlement communities, particularly around accessing basic services, highlight women's leadership in organising for improved services, but also their absence from decision-making structures consulted as part of upgrading processes. A just urban transition approach mandates a profound engagement with intersectionality at the grassroots level. This should include an appreciation of the multiple, often overlapping, dimensions of vulnerability and an explicit focus on vulnerable groups such as children and persons with disabilities. Moreover, inter-generational justice, integral to a just transition, demands attention to the specific needs and aspirations of youth, offering skills and opportunities for sustainable livelihoods.

Accountability, along with communication and transparency, is an essential aspect of this process. Without accountability, trust is eroded.

43 Asivikelane initiative supports informal settlement communities in generating their own data to report service delivery faults and raise concerns (e.g. over service delivery and access) in several parts of the country. (https://asivikelane.org)

Access to safe, reliable and affordable water, sanitation, refuse removal and energy are vital for health, dignity, safety, livelihoods and overall well-being as well as increasing climate resilience.

Essential services and bulk infrastructure[44]

The provision of essential services, for obvious reasons, is generally seen as a priority informal settlement upgrading intervention. Access to safe, reliable and affordable water, sanitation, refuse removal and energy are vital for health, dignity, safety, livelihoods and overall well-being as well as increasing climate resilience. These services are also directly related to rights enshrined in the Constitution and align with municipal obligations. Yet, municipalities face complex challenges in providing essential services and infrastructure, including underlying legal issues (e.g. the question of land ownership) as well as technical and financial impediments, particularly in respect of permanent infrastructure.

A just urban transition approach suggests a number of ways to overcome these challenges with bulk infrastructure provision. This includes climate-resilient infrastructure that is less resource-intensive and could include off-grid solutions. It also promotes 'zero-waste' approaches to water and refuse. Circular economy type approaches to water and solid waste management can play a key role in this regard, whilst also contributing to livelihood opportunities. Lastly, localised management and maintenance of essential services could improve service reliability whilst creating employment opportunities.

Participants stated upfront that a transition towards less resource-intensive services is needed across cities in both poor and wealthy communities. The onus does not lie with informal settlement residents, who are contributing the least to climate impacts and are experiencing risk and vulnerabilities stemming from inadequate service access on a daily basis. Below, the specific proposals made in the JUT Framework for the provision of water, sanitation, refuse removal and energy are discussed in more detail.

44 The JUT framework offers an expanded definition of infrastructure. e.g. the role of 'ecological infrastructure' and the role of water catchments, green open spaces etc. in human health and disaster risk reduction (Cartwright et al. 2023: 31). This section primarily deals with 'grey' infrastructure, while section 5 on neighbourhoods considers 'ecological infrastructure'.

Water and sanitation

Census 2022 suggests that nearly one in five households (17.6%) either accesses water through community stands or has no access to piped water.[45] It does not provide further insights on water access in informal settlements. However, community-generated data suggests that the reality for informal settlement residents is vastly different from what Census data suggests. In 2023, in response to the question whether water access was sufficient, respondents from 292 informal settlements across the eight metropolitan municipalities indicated that this varied from 17% in Mangaung to 83% in Ekurhuleni.[46]

Part of South Africa's water provision challenge related to aging and poorly maintained infrastructure. The growing recurrence of droughts and increasing resource scarcity also need to be considered. As a result, water service outages have become more frequent in South African cities, towns and rural areas.

Participants acknowledged that sanitation in the form of flush toilets uses a disproportionate amount of (potable) water, which wastes a lot of water. This, combined with infrastructure challenges and waste water system challenges, gives rise to the search for alternative sanitation systems that can simultaneously respond to the need for dignified sanitation provision in informal settlements. The JUT Framework suggests biogas and biodigester technologies as ways to offer off-grid, locally managed solutions. It further suggests that capital costs of these solutions could be driven down through widespread procurement.[47] This would depend on a widespread uptake of these technologies by informal settlement residents.

45 Census data published in October 2023 suggest that 8.7% of the total population has no access to running water. Source: https://census.statssa.gov.za/#/statsbytheme. However, given the enumeration challenges experienced during the census, and the perceived data bias towards certain socio-economic groups, Isandla Institute is cautious in taking Census 2022 data at face value. To illustrate this point: Census 2022 suggests that 91.3% of the population has access to piped water (whether in the dwelling, in the yard or on community stand). The Community Survey of 2016 showed that 83.5% of the population has access to piped water. The suggestion that access to water has improved significantly in a relatively short space of time against a backdrop of rapid urbanisation, Covid-19 and associated informal settlement growth (and growing homelessness) is somewhat puzzling – even if one recognises that improvement in (temporary) water access was a key informal settlement intervention during Covid-19.

46 Asivikelani 2023: The state of informal settlement service delivery in metros, date published: 06.03.2023.

47 Cartwright et al, 2023: 13, 27.

Familiarity with the technical aspects of biogas and bio digesters was low to non-existent amongst project participants. However, discussions around what these solutions could potentially mean in informal settlement communities highlighted what considerations would need to be taken into account around the acceptability of any available solutions.

While it is too early to gauge whether bio digester sanitation per se could represent a universal sanitation solution, including in informal settlements, participants referred to their experiences with existing sanitation systems in informal settlements. In the Cape Town context, these largely referred to container-based sanitation systems (CBS) which are also referred to as "mshengu"[48] and which have been widely introduced in informal settlements in Cape Town. These systems are serviced by private contractors at considerable cost to the state. This water-less, chemically-based system was introduced as a temporary stop-gap, and promoted as resource efficient and sustainable as a response to the challenge of providing universal, bulk infrastructure. However, these toilets have proved widely unpopular amongst users.[49]

Discussions around the level of acceptability and dignity these systems provide surfaced several considerations. For example, participants felt that the drawbacks of CBS were a lack of durability and the fact that they can easily break. Furthermore, participants (who were majority women) felt these toilets were not suitable, because they were suspicious that chemicals used to treat these toilets could affect their intimate health. However, for some groups (such as disabled or elderly people) these solutions made sense, because they could be place in or near people's homes, underscoring the need for an intersectional lens in considering the needs and aspirations within communities.

Refuse

Country-wide, informal settlement communities are often poorly served by municipal refuse removal, partially due to accessibility challenges for refuse removal trucks, but also due to service delivery failures, and allegations of corruption as well as the influence of 'extortion rackets' targeting private contractors appointed to take over waste collection responsibility. In early 2024, the City of Cape Town acknowledged that refuse removal to informal settlements had "collapsed" following a forensic audit report in late 2023 which blamed poor management decisions. Refuse removal has been sub-contracted to private companies since 2021. Service delivery protests over the poor quality of service resulted, whilst contractors complained they were threatened by 'extortion rackets', which made it difficult for them to do their job.[50] The City recognises a "new approach" is needed and that it should include "community-based projects".

The JUT Framework has a strong focus on the development of 'social' or public employment solutions linked to waste collection and recycling, which could include rethinking the role of informal waste reclaimers and their inclusion in Metro waste management plans. There is, moreover, a suggestion that 'social enterprises' be incorporated into municipal contracts.[51] Many of these proposals depend on the de-regulation of South Africa's waste sector while strong fiscal incentives around waste separation at source would be required to make them a reality.

48 Named after the company that supplies portable sanitation in informal settlements across Cape Town.

49 Dube et al. (2023). The illusion of the container-based sanitation solution: lessons from Khayelitsha, Cape Town. *Water Alternatives* 16(3): 849–868.

50 Ludidi, L. (2024). Cape Town mayor moves to suspend director following collapse of waste management. Daily Maverick. URL: https://www.dailymaverick.co.za/article/2024-01-22-cape-town-moves-to-suspend-director-following-waste-management-collapse/ [Accessed 2 February 2024]

51 Cartwright et al.2023: 25, 27.

So what would it take to ensure that bottom-up circular-economy type initiatives in informal settlement communities create employment opportunities at scale and are integrated into municipal systems? Some informal settlement residents who participated in the project said more information was needed in their communities about recycling and the economic opportunities that could result from a circular economy approach. One community has already developed innovative and detailed plans on how they wish to manage waste removal themselves. These proposals closely match proposals in the JUT Framework, yet these ideas remain stuck because active community members and leaders do not have access to potential partners/decision-makers at higher levels of city management. They complained that their ideas remain stuck with the local ward Councillor, who does not escalate them.

Some informal settlement residents who participated in the project said more information was needed in their communities about recycling and the economic opportunities that could result from a circular economy approach.

Energy

Energy poverty, understood as the lack of access to reliable and affordable energy supply, is a daily reality for informal settlement residents. Alternatives, such as paraffin, candles and illegal electricity connections, come with health and safety risks, including fire. Other effects of energy poverty include, amongst others: disproportionate household spending on alternative energy sources, which displaces other household needs, such as food; an inability to do homework or study for exams, affecting educational outcomes and prospects; and, difficulties in advancing livelihood opportunities and home-based enterprises. Beyond household access, neighbourhood level access to energy is also vital to promote safety (for example, through street lighting) and enable the effective functioning of socio-economic infrastructure.

In relation to informal settlements, the JUT Framework posits the following: (1) electrification should be extended/expanded to all households; (2) energy should be made affordable to poor households ideally in the form of clean energy; (3) there is scope for new models of energy generation. While the first two are both seen as a restorative justice measures, the introduction of new models could promote distributive and procedural justice.

In terms of universal access, it is critical to consider the 'disorderly transition' currently underway, in which affluent energy consumers and businesses are moving to renewable and mini-grid/off-grid solutions. This trend brings out an obvious tension between the need to protect the national grid in order to ensure universal access and the possibility that only the poor are left reliant on a failed or failing energy system, which more affluent citizens have abandoned in favour of private generation.

On the issue of 'clean energy' options, the JUT Framework suggests that due to their modular scale and marginal costs, technologies such as solar PV, biogas and micro-wind make them "suitable for upgrading efforts."[52] However, while there is some level of knowledge of solar-PV, currently there is a low-level of knowledge amongst informal settlement residents around both the technical aspects and the cost implications of these technologies for their households. These considerations must also be seen against the backdrop of illegal electricity connections. For instance, some households are concerned that paying for electricity through the grid can mean having to pay for those who connect illegally; in this case, they think that solar power may provide a cheaper, less conflictual and safer alternative. While this is a complex question and depends on local dynamics, a consideration of these dynamics relates to how distributive justice is understood.

In this respect, the JUT Framework suggests that new models of energy generation could include worker-owned or community-owned systems or small-scale embedded generation, which could be placed on schools or other appropriate structures to sell/wheel power to local consumers. Indigent electricity grants could be redirected to capitalise renewable energy co-operatives in poorer communities that supply clean energy at fixed prices to homes in wealthier neighbourhoods (e.g. solar panels fixed to the roof of community hall or school).

Informal settlement residents who participated in our project tentatively welcomed the idea of forming 'renewable energy cooperatives' and suggested that appropriate spaces that could be used close to their homes include community halls, which are relatively secure and already protected by the community. Others said it might be easier for individual households to have solar systems so that they can ensure the safety of these components. CSOs involved in community-driven and socially owned projects around both mini-grids connected to the national grid and off-grid systems said as long as these were community assets and benefitted the community in general, safety had not been an issue.

Clearly not all informal settlement communities will understand justice in the same way. Their choices will be guided not only by the affordability of renewable energy technology and the extent to which they are able to safeguard it, but also how they see their role(s) in promoting 'energy democracy'.

Extending localised, solar options to those living in "un-electrifiable areas"

Several emerging innovative solutions are piloted in informal settlements across the country, which can potentially offer access to basic services and electricity to communities who might otherwise be unable to benefit from indigent energy grants they should be eligible for, due to their location in areas considered "un-electrifiable" (either because they are on ecologically sensitive wetlands or private land). These include the provision of coupons to households in order for them to access solar systems/lighting as well as initiatives which offer solar high mast lighting.

52 Ibid: 21, 20.

Things to consider

1. **There is a tension between addressing rights with urgency and finding long-term, sustainable solutions that are locally accepted.** Achieving justice in relation to essential services in informal settlements is, above all, about advancing a human rights agenda around dignified access and ensuring redress, recognising the urgency of the task at hand. In historical context, informal settlements have been emblematic of deprivation and resource scarcity, stemming from a legacy of systemic injustice. The Apartheid State, through 'infrastructural violence', perpetuated segregation based on race by denying essential services to certain segments of the population. Post-apartheid, the consequences persist as passive, rather than active, state policy. A lack of access to essential services reproduces socio-spatial inequality. Often, in seeking improved access to basic services such as water, toilets and electricity, people who live in informal settlements aspire to rectify historical injustices and therefore understandably expect individual access to equivalent services, which people in formal neighbourhoods enjoy. However, climate change demands climate resilient infrastructure, providing alternative services that are less resource-intensive, wasteful and harmful to the environment. Relevant technologies and systems to deliver essential services at scale are still under development and costly. This creates a conundrum for informal settlement upgrading, one that cannot be resolved without community engagement.

2. **Incremental, temporary service provision runs the risk of 'permanent temporariness'. There is, of course, an opportunity to consider service improvements incrementally, with climate resilient infrastructure being the end goal guiding short- to medium term service provision. However, within the context of informal settlement upgrading practice, the concept of 'temporary' or 'emergency' has come to mean the opposite in practice: a state of permanent temporariness.**[53] The upgrading process therefore needs to be approached in a manner that ensures it feels to those involved like an improvement, rather than an alternative or stop-gap measure, regardless of whether the essential services that will be accessed by the affected community are envisaged as short or long term solutions.

Achieving justice in relation to essential services in informal settlements is, above all, about advancing a human rights agenda around dignified access and ensuring redress, recognising the urgency of the task at hand.

53 Many communities (especially those earmarked for relocation) remain in limbo for extended periods and access forms of essential services designed for emergency use (such as portable toilets).

3. **Experimentation with alternatives cannot undermine dignity and needs consent.** Caution should be taken in exploring untested technologies in informal settlements, as it may deepen a sense of injustice amongst those living in the affected community. Solutions must align with expectations that whatever solution is proposed will be an improvement, provide dignified, safe access and be culturally acceptable, ensuring they contribute positively without creating inferior or partial services. Allowing greater scope for localised, adaptable systems must also be set against the imperative that these systems be adequate for the needs of large numbers of users and must be maintained over the long term. Striking a balance between dignity and innovation requires careful consideration from the project's outset to avoid unintended consequences arising from initiatives.

4. **Avoid duality in service modalities and outcomes.** A just urban transition approach must ensure that benefits and burdens/responsibilities are shared fairly and proportionally. This means that there cannot be an exclusive focus on 'greening' informal settlement infrastructure, without addressing consumption patterns and the need for alternative service modalities in other parts of the city. For example, in a context of water scarcity, affluent water consumers must adapt their consumption and sanitation systems, emphasising the need for unified, 'fair' modalities across the entire city. This cannot simply mean that wealthier parts of the city can 'opt out' of the system, by – in the case of water – appropriating ground water for private consumption through investment in boreholes. Furthermore, for people living in informal settlements (such as Slovo Park in Gauteng), which have long been engaged in a struggle for basic services and for upgrading, knowing that pipes supplying bulk infrastructure to formal parts of the city run underneath them underscores the injustice they experience and is a constant reminder of their exclusion from basic services which are accessed by neighbouring communities.

5. **Challenges and vulnerabilities are interconnected.** Upgrading one aspect of infrastructure cannot occur in isolation. Sanitation, water access and drainage are interconnected challenges that impact the health and well-being of informal settlement residents. Upgrades must encompass sustainable urban drainage systems (SUDS) and address the location of taps and water access to mitigate hazards, such as infections resulting from poor drainage. As such, a systems approach needs to guide informal settlement upgrading.

6. **A gender-sensitive and intersectional approach is critical to understand, and respond to, specific vulnerabilities, risks and opportunities.** A just urban transition approach to informal settlement upgrading integrates an intersectional lens and prioritises gender equality. Direct engagement with vulnerable groups is critical to understand, and respond with sensitivity to, divergent needs and concerns amongst an affected community. Recognising different groups' unique concerns, especially regarding essential services like toilets, underscores the importance of a gender-sensitive, community-led response that addresses the diverse needs within the affected community.

7. **Communal services may be part of the solution, but this needs to be discussed with and agreed upon by residents.** In highly dense and under-serviced settlements, communal services and technologies may be the only way to enable service access. Alternative technologies, such biodigesters, also offer community-level, rather than household level access. Apart from a social preference for 'conventional' service provision to individual households, other considerations such as safety, particularly for women, children and other vulnerable groups, also need to be considered.

8. **Communities are agents of change and can be involved in localised systems of service provision, including the circular economy.** Informal settlement communities often have both informal and organised systems around basic services, which can be drawn on. Local involvement in service provision strengthens the upkeep of faulty infrastructure, which ensures sustained access and avoids loss and leakage, with possible harmful environmental consequences. Involving residents and informal waste collectors in the waste collection value chain provides a particularly strategic opportunity to improve a service whilst supporting livelihoods.

9. **Communal ownership and choice are key factors in preventing vandalism and theft.** Concerns over vandalism and theft of infrastructure linked, for instance, to solar systems were raised by some residents of informal settlements. Some felt that it might make more sense for each households to have individually-owned systems as opposed to solar hubs, so they could keep these systems safe. However, other participants pointed out that if such infrastructure is communally owned, and located in a central space, such as a community hall, it can be better protected by the community. According to CSOs who have worked with informal settlement communities to develop service delivery partnerships, a sense of social or communal ownership is an important factor influencing the degree to which related infrastructure is safeguarded. Citizen choice over and involvement in designing services that make sense for them is key to ensuring infrastructure is looked after by the community.

10. **Work with and enhance what already exists (or is in the pipeline).** In the pursuit of a just urban transition, there is a deliberate focus on exploring alternative, resource-efficient and off-grid technologies. However, an often overlooked yet practical strategy for ensuring community access to essential services involves optimising existing state-provided infrastructure. Community-based organisations (CSOs) actively engaged in this sector have reported successful outcomes in improving access by supplementing sanitation infrastructure with additional elements, such as roofing or water tanks. Notably, the critical aspect requiring improvement is the community consultation process related to the installation of such infrastructure, as it is frequently implemented without adequate pre-consultation, hindering the effectiveness of these initiatives.

Land, tenure and housing

Within a broader political economy, access to land and housing are at the heart of informal settlement formation and longevity. Complex institutional issues related to land release, land ownership, land use and land development, including habitability of land, have impeded informal settlement upgrading and housing development. Political and financial factors also play a role.

It can be argued that many South Africa's cities have reached their capacity in terms of ecological sustainability and the environment's carrying capacity. At the same time rapid urbanisation over the coming decades is likely to see the formation of more informal settlements exacerbating pressure on available land and particularly these sensitive areas. Currently, many informal settlement communities are located close to or on rivers or wetlands that are both ecologically sensitive and pose a serious risk to people living there. This is particularly the case in times of floods and storms, as occurred during severe storms in eThekwini in 2022.

For a large proportion of residents, living in an informal settlement is not a short-term reality. Not only do they live in substandard living conditions with associated risks and vulnerabilities; they also live in a state of continual precariousness in terms of their right to stay where they are. And with severely limited prospects of accessing public and/or affordable housing opportunities, the issue of alternative dignified housing development needs to be given greater prominence in informal settlement upgrading policy and practice.

The JUT Framework recognises that one of the underlying causes of the formation of informal settlements in hazardous or unsuitable zones (such as riverbanks and floodplains) is the unmet demand for affordable rental housing stock in (well located) urban areas. [54] It further brings to the fore questions of how to redress the unresolved legacy of spatial apartheid, with informal settlements and public housing developments frequently located on peripheral land, far from economic opportunities. It observes that current human settlement practice focuses on maximising housing opportunities on whatever (affordable) land is available, thus locking in unjust, climate outcomes: This dynamic, it suggests drives service delivery costs higher, undermines the urban economy, and is carbon intensive. [55]

While the JUT Framework provides a more holistic, systems based approach to critical questions around land, tenure and housing access, it is important to bear in mind that there is a need for urgent, decisive action around these questions.

Land

With respect to informal settlements, the issue of urban land has a number of dimensions. One of these is *location*. Informal settlements are often located on land that is environmentally sensitive, such as wetlands, and/or prone to climate risks, such as flooding. And while some informal settlements are well-located in relation to socio-economic opportunities, others are on the periphery of the city, with poor (and costly) transportation access. The JUT Framework recognises both the injustice and climate impacts associated with this reality. It suggests various climate adaptation measures, such as flood barriers, sustainable urban drainage systems, and greening for heat and drought risks, are incorporated into informal settlement upgrading initiatives. [56]

54 Cartwright et al.2023: 28.
55 Ibid.
56 Ibid: 30.

The issue of location (as well as relocation, including through managed land settlement), is closely related to access and *release of land*, with costs often being a determining factor. Moreover, land release for informal settlement upgrading triggers, amongst others, environmental processes and procedures, which holds up the process. City officials feel that people often settle on vacant land no matter what the environmental legislation says, contributing to a feeling of futility around their efforts. Participants also suggested that there is a significant role for CSO actors (including those partnering with government on upgrading initiatives) to play in challenging the state on why well-located parcels of public land are not being used for affordable housing or for informal settlement communities.[57]

Another dimension relates to the issue of *density*. While significant emphasis is placed in the JUT Framework and other urban policy and debates about the imperatives of densification, informal settlements often show higher levels of density than current norms and standards allow for. High levels of density aggravate risk and vulnerability to external shocks and stresses, such as fires and flooding. Furthermore, the lack of open (green) space and the presence of a multitude of uninsulated structures made from corrugated iron roofs with poor ventilation contribute to higher indoor temperatures, which disproportionately affects young children, the elderly, pregnant women and people with chronic conditions.[58] The challenge, then, is to create more open spaces and tackle issues relating to the ventilation and insulation of structures.

Informal settlement density results in complex questions about settlement decanting and (partial) relocation as part of informal settlement upgrading processes – although community reblocking initiatives have shown that that a better utilisation of space can be achieved thus the perceived need for decanting could, in some instances at least, be overcome.[59] Another, as yet unexplored, possibility is vertical densification, as suggested by participants. Not only could this potentially address current housing needs without the need for decanting and relocation; it could also be developed incrementally, accommodate future housing needs (e.g. for children growing into adulthood) and enable income generating opportunities (by renting out space). Some informal settlement participants agreed that vertical densification was one way in which those who needed homes could be accommodated in circumstances where space was limited.

High levels of density aggravate risk and vulnerability to external shocks and stresses, such as fires and flooding.

57 Examples of where this kind of action has been taken include "The Peoples' Land Map" compiled by Cape Town based NGO, Ndifuna Ukwazi which is an evolving map of unused public land within the city. URL: https://peopleslandmap.nu.org.za/#

58 Satterthwaite, D. et al. 2020: 147.

59 Community-initiated reblocking involves reconfiguring and repositioning shacks in very dense informal settlements according to a plan/framework drafted by the community and with the aim of allowing for service delivery, better access and circulation and "longer term development". (Source: Hendler & Fieuw. 2018. *Exploring partnerships with local government: a people's led approach to informal settlement upgrading.* CORC: 50.)

The final aspect, *relocation*, is a deeply contentious issue, with far-reaching implications for residents who find themselves disconnected from social networks and socio-economic opportunities. People's motivations for settling in hazardous areas such as river banks do not necessarily alter once they are relocated, and in many instances they may return to be closer to employment opportunities and other services and due to financial constraints. In the UISP, it is clearly stated that relocation should be a last resort,[60] but that hasn't stopped government from wanting to advance relocation at scale. Recently, in the context of COVID-19 government promoted an unpopular, disastrous plan to decant and de-densify informal settlements, which was widely perceived as a thinly veiled attempt at mass evictions.[61]

Informal settlement residents said a lack of transparency and apparent corruption gave rise to the perception that the decision over which (part of the) community to move were linked to political favours. Promises made at election time were later forgotten.

For those living in informal settlements which have been classified as requiring relocation, or in cases where people have already been relocated, the need for a 'right to remain' following what can be experienced as a traumatic upheaval, even if not legally binding, allows people to make choices about their future without the fear of eviction or being moved again. This is further discussed below, under tenure security.

Perhaps one of the most significant contributions of the JUT Framework in respect to these complex, sensitive and contentious issues is the emphasis placed on deeper, more decisive interactions between government and informal settlement communities. This takes us back to the significance of the social compact as a mechanism to enable deliberative engagement.

Tenure

Providing security of tenure is one of the core aspects of what upgrading policy aims to deliver. In reality, however, municipalities struggle to do so. Local government leadership and long-term commitment are particularly crucial in resolving or reforming the issue of land tenure, which is a minimum precondition for unlocking community-led upgrading.[62]

The effect is that while residents of informal settlements often invest in the inside of their homes, many are reluctant to make longer-term investments in building homes or in neighbourhood projects, because they do not have security of tenure. Another reason is the persistence in mismatched expectation of a state-subsidised house amongst informal settlement residents.

While not a specific focus of the JUT Framework, the question of tenure underpins the effectiveness of upgrading efforts, often impeding progress for long periods until it can be resolved. Furthermore, tenure is seen as a key factor motivating households to invest in their future – whether in the form of constructing more durable homes or other improvements to their living conditions or neighbourhoods, which can help mitigate the risks from climate change.

60 The draft White Paper for Human Settlements, released in December 2023, reiterates that national policy would promote in *situ*, incremental upgrading of informal settlements while considering relocation as a 'last resort'. National Department of Human Settlements (2023). Draft White Paper for Human Settlements: 49.

61 Poplack (2020). De-densifying and decanting: how the government hopes to contain covid-19 in informal settlements. Daily Maverick. URL: https://www.dailymaverick.co.za/article/2020-03-27-de-densifying-and-decanting-how-the-government-hopes-to-contain-covid-19-in-informal-settlements/. A similar view was expressed by 13 co-signatory CSOs in a letter directed at the DG for Human Settlements, Mr Neville Chainee, on 17 April 2020.

62 Georgiadou, M.C., Loggia, C., Bisaga, I. and Parikh, P., 2020, October. Towards sustainable informal settlements: a toolkit for community-led upgrading in Durban. In *Proceedings of the Institution of Civil Engineers-Engineering Sustainability* (Vol. 174, No. 2: 83–93). Thomas Telford Ltd.

Individual tenure security that is linked to a demarcated site is only one prerequisite that need to be in place before households may consider investing in self-build of top structures. Other basic enabling factors include the reduction of flooding and fire risks and flexibility of building and planning norms and standards. Tenure security does not necessarily have to be individual in nature. Greater surety can be secured over time through an incremental approach.[63] An area-based proclamation can give legal recognition to those living there that is not linked to a particular plot. Other communal modes of tenure security have been explored[64] as well as several innovative, local forms of tenure security (such as certificates of occupation) often developed by local CSOs (some with government endorsement) exist,[65] but how these could align with the notion of self-build have yet to be properly explored.

Top structure build

For South Africa's urban transition to be just and adequately support adaptation and mitigation strategies of informal settlement residents, addressing the question of top structure build for millions of people living in often flimsy, structurally unsound zinc shacks, is an obvious imperative.

Participants from informal settlement communities described how fierce winter gales had torn open the chinks and gaps in their homes during unusually strong storms in 2023. Many participants were effected by stifling heat – especially for those who live in baking areas such as Mfuleni on the Cape Flats, where there is little or no shade and where water supply is intermittent. Cities are increasingly recognising the vulnerability of informal settlement communities who often live in "heat islands".[66]

The JUT Framework points to the "obvious potential" of low carbon building materials as "more functional and sustainable alternatives to conventional zinc panels and concrete foundations.[67] Furthermore, the energy efficiency of buildings and labour intensive methods of installing, maintain and repairing such components (which should include fire-retardant paints or other materials) can also be considered.[68] Many participants living in corrugated iron shacks in places such as Mfuleni, where there is little or no shade and faulty water provision, thermal efficiency is indeed an obvious priority. However, it is unclear what role it is proposed the state could play in advancing the construction of improved, more resilient homes – for example, ensuring materials are widely available and affordable through procurement or improving the regulatory environment.

Part of the difficulty in answering these questions, is that conditions to enable top-structure construction at scale – particularly through self-build - do not appear to be met at present. The delinking of housing consolidation from the upgrading process in principle, places a greater emphasis on self-build as a *de facto* modality. However, the mismatch between what informal residents expect in terms of the state's capacity to delivery subsidised housing (expectations often actively encouraged by political leaders) and the realities of narrowed eligibility criteria and decreased state spending on formal housing, is impeding necessary conversations on these critical issues.

63 Royston, L. 2014, March. Incrementally securing tenure: promising practices in informal settlement upgrading in southern Africa. In *Proceedings of the World Bank 2014 Land and Poverty Conference, Washington, DC, USA:* 24-27. Urban LandMark (2013) Incrementally Securing Tenure: Promising practices in informal settlement upgrading in South Africa. Report by Lauren Royston. Pretoria: Urban LandMark; Isandla Institute. 2017. Securing tenure in informal settlements: Exploring an emerging approach.

64 HDA. 2015. *Informal settlement upgrading: incrementally upgrading tenure under customary administration.*

65 CSP. 2016: 20.

66 For example, the City of Cape Town has launched a 'heat risk and response' initiative and is collaborating with provincial government and CSOs to take this forward.

67 Cartwright et al. 2023: 30.

68 Ibid: 20.

Participants from informal settlements said that improved housing was greatly needed. Some said their shacks should be improved into proper houses. Furthermore, they saw an added advantage in this process if it were able to open up employment opportunities for communities, as long as local labour was prioritised. Participants from one community had initiated a community-led project that could produce materials that can be used to build affordable housing as well as skilling up local labour to build using these materials. This involved the community starting a development forum and auditing existing locally-based construction skills in order to be ready once they managed to get partners to help them drive the project forward.

People's expectations of what state-subsidised houses could look like in the future varied and included 'RDP' houses, 'beautiful brick houses' and 'flats'. The prevalence of continued expectations of subsidised housing is coherent with what representatives from CSOs working with informal settlement communities report from the field: that even though there had been talk that RDP housing was coming to end as far back as 2016, many communities still expect to receive subsidised houses, because politicians continue to make promises. There is a need for government to provide a clear message on the issue of housing and how realistic it is to get a house, and to offer something in the place of expectations, to enable self-build at scale.

Setting up a bottom-up brick-making project in BM section informal settlement (Khayelitsha, Cape Town)

1. **Members of the community set up a development forum.**
2. **Community leaders educated residents about their constitutional rights – in particular, those rights that apply to the right of communities to seek redress for historical wrongs related to racially discriminatory laws through tenure (section 25.6).**
3. **They designed a business plan for their brick-making factory.**
4. **A group from the community presented this plan to the City of Cape Town, but it was rejected.**
5. **In parallel they launched a successful application for land tenure on the basis of their constitutional rights.**
6. **They asked community members to contribute a small amount of money to the development forum. Some was invested in a process of community informal settlement profiling and enumeration. They audited existing, locally based construction skills so that when the project is at the final stage, local labour can be used.**
7. **They are currently looking for external investors and CSO partners to be able to take the project to the next step.**

Alternative building materials

Notwithstanding these challenges, there is promising work amongst start-ups to develop alternative, low-carbon building materials. The JUT Framework mentions a number of alternative building materials to top-structures traditionally constructed from corrugated iron (zinc) with a cement base, including wood, non-Crete and cement brick alternatives. Practitioners from CSOs indicated that more information is needed to understand the cost implications of using alternative building materials for housing in informal settlements – be this through incremental self-build initiatives or a combination of state support and resident-driven initiatives.

If alternative building materials are to become widely available and affordable to residents of informal settlements, changes would be required across the construction industry, including through regulatory measures to enforce key polluter controls, as suggested in the JUT Framework. Moreover, simplifying and fast-tracking the approval process to get low-carbon alternatives into the market is also critical, as it takes a very long time to pass stringent norms and standards, which doesn't make its use cost-competitive.

Things to consider

1. **Clarity is needed regarding how the state's (intended) programme of 'rapid land release' is integrated in the informal settlement upgrading agenda** and how this programme can result in just outcomes.

2. **Transparency is needed around all decision-making processes linked to relocation.** This includes the initial classification process and timelines within which people can expect to be moved. Communities must be involved in deciding where they will be moved to and around all steps in the process and expected timelines, aligning with the principle of procedural justice[69] – "nothing about us without us."

3. **A more nuanced understanding of the notional unit of a 'community' being considered for relocation needs to inform the process.** In some cases, a group of people living in an area considered by authorities to be one community turn out to be constituted by numerous distinct 'communities' once in-depth enumeration processes are carried out. These groups may have distinct aspirations and needs, which has a significant impact on relocation processes.

4. **It is essential that the state invest in public infrastructure to accommodate high/increased density,** including ensuring there are enough parks, libraries, clinics and schools within a safe walking distance from peoples' homes.

5. **Vertical densification offers interesting prospects in managing density and service access, but it needs careful exploration.** There are sensitivities around vertical densification if it is perceived to be a measure to 'contain' informal settlements and lock poor people into peripheral locations. However, vertical densification becomes more attractive if there is a clear cost benefit for residents, if it offers rental or mixed-use opportunities, if it is proposed as an alternative to relocating or decanting part of a settlement, or if it protects public/green spaces.

6. **Awareness is needed around alternative title regimes,** which could also provide incremental modes of tenure security (e.g. occupancy certificates). Both informal settlements residents, CSOs and government officials need an improved understanding of innovative approaches to tenure security.

It is essential that the state invest in public infrastructure to accommodate high/ increased density.

69 PCC. 2022.

More experimentation around, and support for, the use of alternative building materials and construction technologies is needed.

7. **More concerted attention needs to be given to self-build housing in informal settlements and the housing support needs of residents.** While some of this involves changes in policy (including possibly financial instruments) and the regulatory environment, many housing support needs are within municipal competencies and responsibilities. Without such support, unsafe and undignified structures will continue to characterise these settlements.

8. **Care should be taken to understand the economic interests involved in the housing market inside informal settlements, particularly rental and real-estate markets.** Whatever form housing consolidation eventually takes – whether it is to involve incremental housing builds driven by community-centric partnerships (that involve the state and other actors), it can be expected that such initiatives could disturb these existing informal economies, leading to unintended consequences.

9. **More experimentation around, and support for, the use of alternative building materials and construction technologies is needed.** Not only can this contribute to making settlements (and homes) climate-resilient; it also creates opportunities for local economic development. Specific considerations to explore include whether these materials can be produced locally; whether materials and techniques imply labour-intensive methods; how much can be recycled, sold, produced and maintained locally; and, what other opportunities for sustainable livelihoods can be created in this value chain. Another important issue to interrogate is whether these alternatives and methods have been 'stress-tested', not only for current conditions (particularly in informal settlements), but also for unpredictable future conditions.

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Livelihoods and economy

The concept of 'sustainable livelihoods' is a prominent feature of upgrading policy. A livelihood is considered sustainable when it "can recover from external stresses and shocks and maintain and enhance its capabilities and assets now in the future."[70] Bolstering sustainable livelihoods is seen as a measure that can increase resilience and the ability of vulnerable communities to recover from shocks, including natural disasters.[71] Beyond basic infrastructure provision, the UISP emphasises improved social services and diverse livelihood activities within informal settlements. In practice, however, municipal informal settlement plans often neglect the livelihood dimension, even when national funds are allocated to support livelihood initiatives.[72]

The JUT Framework locates economic considerations as central to any form of development. It places particular emphasis on localised interventions and place-based jobs and skills, in the provision of basic infrastructure, services and the housing value chain. In the context of informal settlement upgrading, localised job creation initiatives are particularly important in the stewardship, management and restoration of ecologically sensitive, biodiverse areas and "nature-based adaptation".[73]

Another opportunity lies in the creation of place-based jobs – or, in this instance, perhaps more appropriately termed 'place-making' jobs. On the one hand, this includes circular economy activities, particularly in the waste sector, with local waste pickers and community-run recycling depots incorporated into the plan. On the other hand, public employment programmes, such as the Extended Public Works Programme (EPWP) and, more recently, Presidential Employment Stimulus through the Social Employment Fund (SEF) can be – and have been – leveraged to implement initiatives in informal settlements related to food security, health and placemaking. CSOs involved in these initiatives have indicated that this has resulted in promising initiatives that have created more locally-focused jobs.

Currently informal settlement residents receive most of their services from private contractors. Stakeholders consulted through this project said they felt it was important that people who experienced the problem were usually not the ones employed through municipal to fix it, leading to diminished accountability between contractors and communities. They complained that the selection criteria used to employ people through the EPWP programme seemed random. Furthermore, they suggested that before initiating a project, officials should come to the settlement and select people who would be properly trained as this would give them skills they could leverage in the future.

Sustainable livelihood plans that are embedded in informal settlement upgrading plans can also incorporate measures that support the informal economy, including street trading and home-based enterprises. This can include land use regulations and zoning, but also the creation of market spaces with ablution and storage facilities, amongst others. Increasing digital access/connectedness of communities should also be considered a central aspect of any future approach.

Furthermore, improving access to economic opportunities outside the area where people live is also a critical part of informal settlement upgrading. Investment in transport networks, including non-motorised transport, is therefore critical. In turn, this improves access to the neighbourhood for non-residents, which can have positive economic spin-offs.

70 Housing Development Agency. 2014: 6.

71 NUSP. 2015: 6.

72 For example, the USDG includes a provision for improving the sustainability of livelihoods of poor households (source: Parliament of SA. 2021. Policy brief: performance on Human Settlement conditional grants.) The municipal ISUPG includes a sustainable livelihood implementation plan as part of the informal settlement upgrading plan for each settlement (Isandla Institute, Planning for Informality, 2022).

73 Cartwright et al. 2023: 33.

Adopting a just urban transition approach to development initiatives linked to upgrading means that an economic dimension is an integral aspect of every process. Notwithstanding the complexities of agreeing to procurement and standards for employing local labour, community-driven partnerships as well as the creation of place-based jobs to support ecosystem protection and maintenance as well as jobs through labour-intensive aspects of a 'green tech' housing value chain all represent real opportunities to tackle unemployment.

Things to consider

1. **Ensuring people have access to basic services and amenities can free them up to expend their time and energy on livelihood activities.** While existing policy recognises that sustainable livelihoods are supported through different aspects of upgrading, such as access to adequate housing and improved basic services, there is an argument that a sustainable livelihoods approach has been framed and approached as a separate development priority, creating a false partitioning between infrastructure priorities and livelihoods support. Participants argued that access to basic services and other amenities is foundational to livelihoods strategies (think of access to water for cooking, washing, etc.). As participants from informal settlements in Philippi suggested, this does not necessarily mean taking an either-or approach.

2. **Municipalities have various 'tools' at their disposal to unlock economic activity and support livelihood strategies.** Beyond the provision of basic infrastructure, less restrictive zoning and land-use management could help to unlock economic activity for those living in settlements that are being upgraded. Providing households located on erven that are not registered with digital addresses has allowed people to register to trade and for other services.[74]

3. **Conceptualising fair practice and 'local labour' within a just urban transition is complex.** While the preference for local labour, with economic benefits directly felt by affected residents and communities, is understandable, at this stage the concept of 'local labour' is poorly defined and experiences with embedding local labour requirements in procurement have been mixed at best. There is a danger that institutionalising the use of preferential, local labour could lead to 'hijacking' by procurement mafias. While there might appear to be a fine-line between systems of extortion and informal, democratic systems of decision making around who gets to benefit from available jobs, however, these practices are important forms of grassroots democratic decision making that need to be built upon and integrated into future place-based labour procurement. For example, the 'gooi-gooi' system (which equates to pulling names from a hat) to decide who in the community gets to benefit from local job opportunities offered by contractors is an example of a grassroots practice in democratic decision making.

4. **Draw on (existing) community infrastructure to coordinate and safeguard economic development opportunities from criminal appropriation.** In informal settlements, community development forums could be used as coordination hubs, where locally-owned small-scale contractors could register for service delivery or infrastructure construction linked projects. These could be linked with government initiatives such as the Contractor Development Programme (CDP), which is part of the EPWP programme in the Western Cape and provides training and mentoring to emerging contractors in the construction industry.

74 Gauteng-based CBO, Planact worked with Google to create digital addresses (source: https://www.dailymaverick.co.za/article/2023-04-11-no-physical-addresses-just-another-hazard-for-those-on-fringes/)

A river, its risks and possibilities for "place-based" jobs. Experiences from Mfuleni, Cape Town

Situated roughly 30 kilometres from central Cape Town, several informal settlements in the area of Mfuleni in Cape Town are located adjacent to the Kuils River, which places them both in the position of stewardship of a sensitive, ecologically vital wetland and at the mercy of seasonal flooding from the river.

Burundi settlement has been identified by the City of Cape Town as a high disaster risk area. [75] This affects residents living on a flood-prone section (zoned for relocation) for whom it becomes impossible to move around the settlement and access ablutions and other amenities while stagnant water breeds diseases and affects peoples' health, particularly that of children.

When the communities now living in the area initially settled, authorities told them the settlement could not be provided with electricity, because it was on a floodplain. Over time, as the river increasingly flooded, they came to see this was true. The back section of the settlement, closest to the river, is zoned for relocation, an unresolved issue that fuels frustration amongst the community and mistrust towards local political leaders, because of a lack of transparency surrounding decisions over whom to move, which appear to be politically motivated.

Water outages, often for a whole day, are commonly experienced in the area. According to data collected through their networks, of 48 taps installed in Burundi settlement alone, 5 were working. Even these run dry in hot weather, for reasons the community did not fully understand, but which appear to have to do with low pressure. Even when water is available, people have to walk long distances to fetch water, because of the large size of the settlement.

The river, both a resource of the 'commons' and a periodic source of danger to life, homes and belongings, is potentially key to the future of this informal settlement. Past proposals on how to mitigate the risks of seasonal flood surges include: planting trees to absorb water and constructing a cement channel for the river – both solutions would limit the potential of this wetland to act as an ecological buffer capable of mitigating the effects of flooding as well as destroying biodiversity.[76]

An alternative solution proposed by project participants is that members of their community be employed to remove garbage and other pollutants from the river in order to clean it to make it usable for the community, who suffer from a lack of water for cooking, cleaning and ablutions. Ideally the water could be purified to make it drinkable. In a place where high unemployment, especially amongst the youth, is a pressing concern, the community felt that those who could be employed to do this work should be from the area as they are the ones who experience the problem. However, the public works programme, EPWP randomly selects people to employ for community projects from outside the area and therefore does not result in skills training that would stay within the community.[77]

As compelling as it is to imagine a future in which community stewardship of this commons results in environmental and social justice outcomes, to begin to make this community proposal viable, partnerships would have to be forged at an appropriate scale and with enough resources/ investment to make it viable over the long term. Cleaning the section of the river around Mfuleni cannot solve the problem, but would have to other initiatives further down and up-river.

How such an initiative would be resourced and managed over the short, medium and long term is a complex challenge. However, factoring in the cost of risk, both in human and ecological terms of not acting, is a key factor.

75 Report by Research Alliance for Disaster and Risk Reduction, Stellenbosch University (2017). http://lib.riskreductionafrica.org/bitstream/handle/123456789/1382/Burundi%20Risk%20Assessment%20Report%20August%202017.pdf?sequence=1&isAllowed=y

76 Culwick et al. 2016. *A framework for a green infrastructure planning approach in the Gauteng City-Region* (Vol. 4). Gauteng City Region Observatory (GCRO).

77 Summarized from experiences shared by participants during a workshop held in Mfuleni (November, 2023).

Lessons from elsewhere

The City of eThekwini experiences regular flooding and informal settlement communities frequently live close to rivers. The City has supported and, in some cases, initiated several riverine stewardship initiatives, the success of which can be used to make a business case for similar partnerships at scale:

- **The Sihlanzimvelo Project** is led and funded by the Metro since 2012. Community co-operatives are employed to clean 300 km of stream from which they remove litter, waste and invasive species to reduce storm-water blockages. The programme is managed by a consultant.
- **Green Corridors - Green Spaces:** A not-for profit company facilitates partnerships between the municipality and other stakeholder to employ local communities to clear invasive species and waste from rivers and other areas identified as needing intervention.
- The **Aller River pilot:** An environmental protection-oriented CBO in Kloof partners with other non-profits. The pilot is co-funded by the City and other donors to employ community eco-champs who build awareness of stewardship of riverine areas.[78]

Partnerships, governance and funding

Informal settlement upgrading should be a national priority. This should be evident, not only in policy statements, but, most importantly, in resource and capacity allocations of the state and its ability to harness the involvement of non-state actors in both private and civil society sectors. The JUT Framework both reinforces the importance of informal settlement upgrading at scale while adding further complexity in terms of the climate resilience imperative. However, economic austerity and the current freeze on public sector employment undermine the prospect of upgrading at scale – or at least, the likelihood of additional money and capacity being unlocked through the national fiscus.

Not all municipalities have equal capacity to forge the types of community-centric partnerships a just urban transition approach would necessitate, nor will they be able to respond equally to the changes in revenue streams occasioned by the widespread switch to private energy generation, resulting in different resourcing capacities at local level. And while CSOs provide excellent socio-technical support to informal settlement communities, a relatively limited number of organisations are doing this kind of work.

In this section we consider what a just urban transition approach to informal settlement upgrading means for partnerships, governance capacity and funding, so that upgrading at scale can be accomplished.

78 Adapted from: C40 Cities finance report on Transformative Riverine Management Projects in Durban (2019).

Partnerships

The UISP underscores the necessity of partnerships, emphasising that specialist socio-technical knowledge often absent in local government is essential for successful upgrading.[79] For some time, group such as the Slum Dwellers International Alliance have called for greater emphasis on partnerships, rather than participation.[80] In practice, calls for partnerships have often resulted in in municipalities contracting private companies to complete 'turn-key' projects, resulting in no long term relationship building with communities.[81] The JUT Framework places strong emphasis on partnerships, which include community-driven service delivery partnerships, but also partnerships with other actors. However, as noted in the JUT Framework:

> **Metros struggle to forge the partnerships and the procedures to conduct effective upgrades. Pooling experiences and learning from successes as to what constitutes effective combinations of work, risk and cost sharing in upgrading partnerships, represents a crucial first step.** [82]

Given the growing complexity and increasing unpredictability of the world we live in as a result of climate change, both the imperative and value of pooling expertise and resources from different sources (public, private, community, civil society) are obvious. The role of public-private collaborations or partnerships are increasingly recognised as playing a key role in driving urban sustainability in the Global South.[83] Less attention is often given to partnerships with CSOs, yet significant expertise and knowledge related to informal settlement upgrading is vested here.[84] If procedurally just partnerships are to drive South Africa's transition in general, and informal settlement upgrading in particular, the role of organised communities within such partnerships must be carefully understood.[85]

Building community-centric partnerships

CSOs who have partnered with local government and informal settlement communities around service delivery indicate the primary focus should be ensuring that the community gets to decide on and design services that make sense in their context. This can also help prevent vandalism and theft.

1. **The underlying requirement for successful social infrastructure is citizens' choice.**
2. **The financial sustainability of the service largely depends on whether the community buys into the service, whether through co-payment or other options.**
3. **Arriving at the right technology for the right context requires engaging with local realities and needs, as different options or baskets of services may be required for different households.**

79 City Support Programme (2017). Preparing to scale up informal settlement upgrading in South African cities: a toolkit: 120.

80 Slum Dwellers International (SDI) Alliance.2018. Partnerships. Available online https://www.sasdialliance.org.za/about/partnerships/; 2018. [accessed 1 February 2024]

81 Fieuw, W., 2015. Deep rooted knowledge? Assessing the lack of community participation in UISP projects. *In Pursuit of Responsible and Responsive Local Governance:* 66.

82 Cartwright et al. 2023: 30.

83 See for example, C40 Cities.2023. Public Private Collaboration to Accelerate Sustainable Urban Development: A guide for Global South cities. Available online. https://www.shiftcities.org/sites/default/files/2023-09/public-private_collab_guide_24092023.pdf

84 A notable exception is the NGO Framework Agreement of the Western Cape Informal Settlements Support Programme (ISSP), which created a mechanism to draw in CSOs in the roll out of the programme.

85 Cartwright et al, 2023: 14.

Governance capacity

At local government level in particular, a number of institutional challenges hinder its performance to advance informal settlement upgrading with the speed and at the scale required. These include:

- Insufficient capacity allocated to informal settlement upgrading, with sometimes a small unit or single person responsible for upgrading;
- A lack of social facilitation skills to enable meaningful community engagement;
- Weak partnership coordination skills;
- An organisational structure and culture that promotes siloes rather than transversal, inter-disciplinary approaches;
- A reporting burden towards other spheres of government, which takes energy and resources away from 'doing the work';
- A dominant paradigm (and political interests) geared towards public housing provision.

These factors are likely to prove an even greater impediment in pursuing a just urban transition approach to upgrading, which calls for a more holistic, systems-based and procedurally just process.

Funding

Metros can draw on different sources of grant funding and own revenue for informal settlement upgrading. However, uptake of even 'bespoke' funding has shown a mixed picture: in the 2021/22 fiscal year, six out of the nine provinces reported they had underspent conditional grant allocations under the Informal Settlement Upgrading Partnership Grant (ISUPG).[86] This suggests that one of the primary issues to be addressed is the ability to allocate and spend money, before exploring the need and prospect of additional funding.

Of course, the JUT Framework identifies a range of new service technologies and climate adaptation interventions that are likely to increase the cost of informal settlement upgrading, especially where it concerns relatively new technologies that haven't yet been made available at scale. Since community infrastructure and service delivery is not listed against any of the available grants In the Just Energy Transition Investment Plan (JET-IP),[87] at this stage the bulk of funding for informal settlements upgrading through a just urban transition would need to come from existing revenue streams.

A review is currently underway of the national grant system, which creates an opportunity for Metros (and other spheres of government) to advocate for grant conditions to be relaxed to enable experimental, innovative short and long term solutions. It further allows for the identification of funding needs and funding gaps for informal settlement upgrading premised on a just urban transition approach.

Metros can (and do), of course, seek to augment their funding base by accessing global funds. At the global financing level, the imperative to move ambitiously to upgrade informal settlements as a key development priority comes up against the problem of additionality, as some funds (such as the Green Climate fund) do not fund projects where the primary objective is development with a climate change or adaptation co-benefit. Where, for example, essential service provision in informal settlement upgrading takes the form of 'conventional' services, access to such funding opportunities may be restricted. African countries are pushing back against global climate mechanisms and more work is needed to show that upgrading, even without being focused specifically around decarbonisation and green technologies, can promote more resilient neighbourhoods.

86 Informal Settlements Upgrading Grant: National Treasury & Department of Human Settlements briefing (August 2022) Parliamentary Monitoring Group: URL: https://pmg.org.za/committee-meeting/35301/

87 The PCC's Just Energy Transition Investment Plan (JET-IP) for 2023-2027 prioritises three sectors for local and global investment: electricity, new energy vehicles and green hydrogen. Skills development and municipal capacity are identified as cross-cutting priorities. (https://pccommissionflo.imgix.net/uploads/images/South-Africas-Just-Energy-Transition-Investment-Plan-JET-IP-2023-2027-FINAL.pdf)

Potential sources of funding for a just urban transition approach into informal settlement upgrading

As part of the review of the current grant system, the **Local Government Equitable Share (LGES)**, an unconditional allocation to provide free basic services to poor households, could be geared towards JUT-type upgrading initiatives. Similar provisions could be included in conditional grants, such as the **Urban Settlements Development Grant (USDG)** and the **Municipal Emergency Housing Grant (MEHG)**.

The **Informal Settlements Upgrading Partnership Grant (ISUPG)**, designed to "facilitate a programmatic and inclusive approach to upgrading informal settlements"[88], can be amended to allow for a longer-term and more strategic approach in line with a just urban transition approach. There is also potential to leverage sector-specific subsidies and grants (such as for energy), so that these can be redirected to capitalise upgrading-related projects.

A proposed additional source of revenue is the creation of a '**JUT fund**', described as a "multi-level agreement" whereby unallocated Metro budgets could be redirected instead of being sent back to Treasury.[89] Although it is unclear where exactly such a fund would sit within government, nor how it would be administered, the advantage would be to give government some flexibility to try innovative approaches. There could be scope for such a government-directed approach to integrate with bottom-up initiatives in the form of **community funds**, which are local discretionary funds that can allow room for innovation and stimulate micro-enterprises. These funds can come from multiple sources, such as community savings, grants and assistance from governments and donors (sometimes in the form of loans).[90] Finally, there may be potential to leverage funding for upgrading-linked initiatives through climate investment and finance, including through the Development Bank of SA's **Green Climate Fund** and the **Loss and Damage Fund** (yet to be established),[91] **impact investment**[92] and the **national carbon tax and offset market**. In theory, 10% of South Africa's carbon tax raised from companies wishing to offset their carbon tax reductions could be used for upgrading initiatives. A framework for a domestic carbon offset programme, which would make this achievable, has not yet been signed into law.[93]

88 NDHS. 2023. Presentation to Portfolio Committee for Human Settlements, 22 February 2023.

89 Cartwright et al. 2023:43.

90 Adapted from Satterthwaite et al, 2020: 152.

91 The 'loss and damage' fund was proposed by countries attending the COP27 in Egypt in 2022 to fund the loss and damage incurred during climate-related disasters which are linked to past emissions by a few of the world's most developed countries. A mechanism has yet to be established to make this a reality in SA.

92 Impact bonds (IBs) use private funding from investors to cover the upfront capital required for a provider to set up and deliver a service. The service is designed to achieve measurable outcomes specified by the commissioner. The investor is repaid only if these outcomes are achieved.

93 The authors of the JUT Framework calculate Metros could generate carbon offset revenue (potentially over R15 billion per annum by 2030 from SA's carbon tax through generating projects that generate carbon offsets). Cartwright et al. 2023: 42.

Things to consider

1. **Sustainability of partnerships, particularly with CSOs, depends on fair remuneration.** CSOs feel that their socio-technical expertise is not valued equally, as they are often faced with assumptions that CSOs provide either an inferior service (compared to the private sector) or are fulfilling a 'public service' and therefore do not need to be fully compensated or should be remunerated at lower rates. This undermines the ability of CSOs to offer their expertise and potentially scale up their support.

2. **Specific mechanisms may be needed to assemble and manage 'fit-for-purpose' partnerships.** Partnerships may require a consideration of specific mechanisms and/or allocations within grant provisions. If such mechanisms are to be included, they would need to be carefully designed and mechanisms would also need to be put in place to manage these partnerships. Particular attention needs to be given to how to enable partnerships with CSOs, as the Municipal Finance Management Act (MFMA) places restrictions on municipalities to harness CSO partnerships. As such, the regulatory environment may need to change to enable partnerships and innovation that respond to community needs.

3. **Appreciating the institutional environment and requirements placed on municipal officials is key to developing good working relations.** Organisational expectations of, and demands on, municipal officials are significant and can hinder their ability and motivation to engage in time-consuming processes with uncertain outcomes. Some of this stems from the onerous reporting requirements, whereas the performance management system is also a factor. While long-term solutions must be found to these concerns, organisations that have successfully partnered with local government to provide socio-technical support on various projects suggest that being aware of these pressures and showing a willingness to help officials find ways to meet their targets has been useful.

4. **Urgent and considered attention must be paid to the issue of government capabilities** for informal settlement upgrading in line with a just urban transition approach. Unless more dedicated, suitably qualified and better coordinated capacity is leveraged, informal settlement upgrading will not happen with the urgency and at scale required. This is particular the case for municipalities, but is equally relevant to other spheres of government.

5. **A JUT approach implies greater accountability for public servants, but also rethinking accountability measures and indicators.** Currently, the performance of municipal officials in particular is largely tied to quantitative measures. For a just urban transition approach to be effective, other metrics need to be applied that can relate to interrelated goals of environmental and social justice as well as deep, community-centric engagement. These could include linking the efficacy of upgrading processes to key metrics such as health, safety and education, which allow for a tracking of whether an initiative has advanced social justice.

6. **Flexibility around budget cycles (both donor and public funding) is required**, especially to enable deliberative engagement on options, choices and sequencing of informal settlement upgrading interventions. Budget cycles of only one year can undermine this. Investing in the process takes time, but it can make implementation more efficient.

7. **Funding for pilot initiatives is vital, but to upscale and replicate successful initiatives sustained funding is needed.** To source funding beyond pilot scale projects, more work must be done to source concessionary finance. There is potential in the emerging impact investment field, but more needs to be understood about the potential of this type of investment for informal settlement upgrading. Innovative use of public funds could include support for start-ups and investors with an interest in providing services to communities, such as through the creation of a 'first loss facility' to drive the uptake of the private sector in the space.[94]

8. **Risks must be factored into funding and budgetary conversations.** A narrative has yet to be built at either a local or national level to convince insurers and private sector investors to incubate risk. Disasters such as the devastating floods in eThekwini in 2022 have exposed both city managers and investors to the consequences of not supporting the upgrading and 'climate-proofing' of informal settlements. Hidden costs of not supporting adaptation measures in informal settlements include providing fire-trucks every time there is a fire in an informal settlement, fixing infrastructure following natural disasters, such as floods, and financial burdens to residents themselves.

9. **Role of community data in determining risk.** Rather than it being a technocratic, top-down process, climate risk can be determined through bottom-up processes that use community-generated data, and resources can be allocated through a system able to respond to this data. The flip-side to this is that communities must be able to see that their data is being used or that it will yield results. Communities get fatigued from constantly providing data without seeing any impact of their efforts.

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94 A first-loss guarantee is commonly used to secure assets or private credit enhancement. Often a third party agrees to indemnify holders/investors for a given amount.

TOWARDS RESILIENT, VIBRANT NEIGHBOURHOODS

Ultimately, the goal of informal settlement upgrading is to bring about liveable, safe, dignified, vibrant and resilient neighbourhoods. Key to this are interventions targeted at household living conditions, namely essential services and top structure, that address underlying vulnerabilities and risks (socio-economic and environmental) and anticipate climate risks. But a neighbourhood is more than these component parts. So what makes for a 'good' neighbourhood, especially from a just urban transition perspective?

In Philippi, Cape Town, people live in informal settlements that have not been upgraded despite being in existence for 35 years, due to complexities surrounding multiple ownership of the land they are on. Among their key concerns are the high level of crime in the area and unemployment, especially among youth. For them, the end result of informal settlement upgrading is a neighbourhood that is safe, with street lights and walkways so that children in particular can walk around safely, that has good roads and pedestrian paths, with creches and schools close by. It would have a community park where children would play and public space, like parks and green spaces, for people to enjoy. It would offer work and income-generating opportunities, especially for youth who need to have a sense of purpose and be kept away from the influence of criminals. As the area houses excellent car mechanics, a hub would be created somewhere central, from where they could run their business. Improved water access, flush toilets, regular refuse collection and proper homes, with solar panels on each roof to provide energy, also form part of their neighbourhood aspirations.

Alongside the need for improved household conditions, safety and access to employment, residents also spoke about the particular 'social ecology' of their area. This aligns with the literature on social and ecological urbanism that suggest that a neighbourhood is defined less as a discrete geography, and more as 'loosely knitted communities of place' where social networks are geographically localised.[95] This way of thinking is useful, because it emphasises the social networks residents can draw upon and provides a way of thinking from a local level, where (extra-)ordinary people and their networks matter.

Essentially what this community vision shows is what is encapsulated in a just urban transition approach to informal settlement upgrading. As the JUT Framework suggests, this goes beyond the upgrading already envisaged in the UISP in that it foregrounds justice (in its various dimensions) and resilience in the face of climate change.

As highlighted by informal settlement residents, improved access to services and public amenities such as schools, creches, libraries and police stations in the neighbourhood, or in close proximity, are key characteristics of 'good' neighbourhoods. Some of these facilities, as suggested previously, may well offer strategic opportunities for advancing climate resilience – such as solar panels on roofs of public buildings to provide energy to local residents. Space for paved roads, open spaces and the amenities mentioned above can be created by re-blocking initiatives by communities and support organisations working with local government. All these interventions can contribute to improved safety and a 'sense of place'.

95 Hajer, M.A., Pelzer, P., Van Den Hurk, M., Ten Dam, C. and Buitelaar, E., 2020. *Neighbourhoods for the future: a plea for a social and ecological urbanism.* Transcity Valiz: 32.

Investing in 'green infrastructure', such as parks, green spaces and the protection of rivers and wetlands, is another important aspect of neighbourhood development that promotes resilience. This can include home gardens and food gardens, which can simultaneously offer residents a buffer against hunger. Neighbourhood level initiatives such as communal food gardens in Mfuleni are already impacted by increased heat and therefore residents are concerned that climate change threatens their food security. In an area where water access is already intermittent, addressing this issue involves complex questions relating to factors outside of their control, such as city-scale interventions focused on 'heat islands', upstream watershed management and water access so that people can irrigate their crops.

The development of early evacuation plans is a crucial element of neighbourhood-level responses to local disasters. An aspect which is not often considered is that people need to have safe spaces to temporarily store their belonging in case of disasters, allowing them to more easily bounce back afterwards.

If neighbourhoods are places where ordinary people and their networks matter and can be tapped into as resources for development, then greater attention should focus on these networks. When thinking through the kinds of neighbourhood initiatives that could potentially increase resilience in the face of debilitating heatwaves, participants in Mfuleni suggested that volunteer groups in the community could be formed to help the elderly move around and also make sure children got to school. The efforts and labour of social networks do not substitute for the state's responsibility in building risk-reducing infrastructure, such as heat-reducing housing modifications. Nonetheless, community networks and the ethos of care are key to thinking through the social and technical assemblages it will require to address current and future challenges in the context of climate change, and ensure informal settlements are transformed into vibrant, resilient neighbourhoods where people enjoy security (including job security) and wellbeing.

CONCLUSION

Approaching informal settlement upgrading through a just urban transition lens offers an opportunity to revisit existing practices, ideas and assumptions and prioritise the principles of justice, resilience, empowerment and outcomes-focused development. In particular, the notion and practice of deliberative engagement – in the first instance between municipalities and informal settlement communities, but ultimately involving a wide range of stakeholders involved in aspects of neighbourhood development – need to be located at the heart of informal settlement policy and practice. After all, if upgrading through a just urban transition approach is to be truly transformative, adaptive and climate resilient, it requires particularly strong engagement at local level, including strong community-local partnerships alongside the support of other spheres of government and other stakeholders.

As an immediate first step, the anticipated White Paper on Human Settlements must provide guidance on how a just urban transition approach directs informal settlement upgrading and how a social compact can be animated to enable deliberative engagement on all aspects of upgrading.

While the just urban transition approach holds potential to give teeth to progressive provisions contained in upgrading policy, its essence lies in empowering a broader societal movement capable of meeting the scale of current and future challenges. This necessitates placing affected communities at the forefront of transformative change, moving beyond mere policy realignment to engage informal settlement communities through deep democracy and bottom-up processes.

We acknowledge that upgrading which seeks to address the profound injustice(s) present in many informal settlement contexts, will be contested. Civil society must continue to play a prominent role in pushing for accountability from the state and other actors, through available avenues.

Based on a range of promising initiatives around the use of community-generated data spearheaded by CSOs working in informal settlement communities, community data has emerged as a potential game changer. There is potential to use this data: 1) to increase responsiveness and accountability on the part of municipalities for inadequate service provision; 2) to help define 'real-time' risks to inform investment decisions and to influence the allocation of resources to respond the community-defined needs. However, 'community data' cannot be a panacea to tackle all challenges. It matters for whom and by whom data is generated, who it is managed by and what it is used for.

For many human settlement stakeholders and practitioners, whether in (local) government or civil society, climate change is still a relatively distant reality and knowledge of climate adaptation and alternative technologies is limited. Knowledge sharing and self-education will be critical to strengthen sector competencies for the daunting challenges ahead. A critical aspect of this is to translate just urban transition concepts and jargon for informal settlement residents. There is a low level of awareness amongst informal settlement communities about the just urban transition, what it could mean for them and how they can potentially drive local process of change and adaptation.

The imperative to address spatial injustice, biodiversity protection and social injustice through a just urban transition approach implies the need to focus on the provision of low-cost housing in well located areas of cities and to think deeply about how informality relates to these conversations. Critically, exploring what 'self-build' means and how it can best be supported to result in dignified, resilient homes should be part of a national conversation.

Nonetheless, the immediate challenges faced by informal settlement residents are basic, revolving around access to toilets, solid waste removal and fire control. Urgent attention must be given to these challenges, rather than hastily diverting a development focus to alternative technologies.

Yet, the need for urgency should not distract from the importance of forward-looking, outcomes-based conversations and strategies, nor should it quash innovation. Finding a workable balance will be challenging and may well differ from place to place.

All this points to the need for more conversations about a coherent, shared imaginary for informal settlements and informality and its role in our cities. These conversations must include informal settlement communities and resonate with grounded realities, whilst drawing on practices and expertise from elsewhere in coming up with diverse solutions.

Immediate challenges faced by informal settlement residents are basic, revolving around access to toilets, solid waste removal and fire control.

Annexure: organisations and individuals consulted

- African Centre for Cities
- Built Environment Support Group
- City of Cape Town: Sustainable Energy Markets Department
- Community Organisation Resource Centre (CORC)
- Development Action Group
- Environmental Monitoring Group
- eThekwini Municipality
- Informal Settlements Network (ISN)
- Kuhle Solutions and Development Services
- GreenCape
- Gauteng City Regional Observatory
- Groundwork
- National Treasury (Cities Support Programme)
- People's Environmental Planning (PEP)
- Planact
- Project Preparation Trust (PPT)
- South African Cities Network (SACN)
- South-South-North
- Socio-Economic Rights Institute of South Africa (SERI)
- Sustainable Energy Africa
- University of the Western Cape: Politics and Urban Governance Research Group
- Western Cape Government: Department of Environmental Affairs and Spatial Planning

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