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As cities continue to grow in this age of climate emergency, it is essential to question how cities are planned and designed in order to be prepared for the future. With a background in the built environment ranging from macro to micro-scale projects, the framework was born from our research and practice while imagining the future for the Paya Lebar Air Base Conceptual Master Plan project in Singapore from 2021 to 2022. Building upon this work, further research and interviews with local experts from urban planning, architecture, public policy and community stakeholders led us to answer this crucial question: How can the built environment be designed to support a holistic way of life towards the well-being of Planet, People & Prosperity in a Tropical context?

In this book, readers will learn how well-being can be realised through 12 inter-reliant Principles, be equipped with the skills to analyse their urban environment through intangible and tangible objectives. Coupled with strategies across the scales from urban planning to the buildings and spaces we inhabit, the book is useful for all interested in improving our built environment for all, from urban planners to architects, policy makers, community stakeholders and the everyday city residents!

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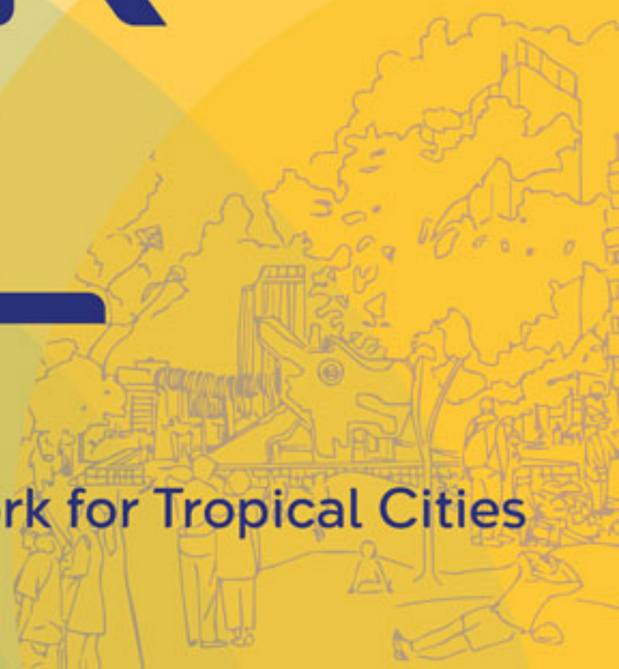
WELL-BEING FOR ALL

WELL-BEING FOR ALL

A Holistic Framework for Tropical Cities



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UNDERSTANDING THE NEED

There were several motivations for creating this well-being framework.

We noticed that while the topic of well-being has been increasingly discussed over the past twenty years with regards to its measurement, as well as become a growing agenda for policy making and research (Llena-Nozali, Martini, & Murtini, 2019), a majority of the theoretical and national well-being and happiness indexes developed globally are largely Western-centric. This poses significant challenges when applying them to tropical equatorial cities, like Singapore, since these frameworks are usually based on temperate climatic conditions and respond to a Westernised cultural context.

In addition to this, authorities' frameworks which regulate Singapore's built environment tend to focus on specific aspects of well-being, unwittingly leaving out others. Quantifiable and 'tangible' indicators, such as the green performance of buildings, are easier to measure and implement, whilst the more 'intangible' elements tend to be left out of project considerations, possibly due to the complexity of identifying, quantifying and measuring outcomes. These include indicators like cultural heritage, diversity of communities, freedom of creativity, the sense of agency, nurtured neighbourhood identities and the sensorial experience of environments, amongst others, which are equally essential in measuring the success of place-based implementations.

One of the frameworks which our research has heavily referenced is the United Nations Sustainable Development Goals (UN SDGs), a broad global framework for 193 countries, that aims to achieve a better and sustainable future for all by 2030. The 17 UN SDGs establish a strong basis for the basic human rights of survival and livelihood, sustainable communities, and the protection of the environment (UNDESA, 2023). Even this is limited in its scope as its indicators are meant to take into consideration first to third world countries, which each experience a different set of challenges in attaining well-being.

Our well-being framework focuses mainly on Singapore, and by extension, can be easily adapted for other tropical equatorial cities in the Southeast Asian region and the Global South, who share many similarities and challenges in the urban environment. In this way, we are able to ensure that our principles and objectives represent the most current and pertinent needs of our society, towards developing actionable strategies for future city planning.

Underpinning the need for such a framework is the urgent reality that humans are consuming resources faster than the Earth can replenish them. This has resulted in detrimental effects on planetary systems such as the thinning of the ozone layer from the over-production of greenhouse gases, intensive farming depleting the soil's nutrients, widespread deforestation leading to landslides, forest fires, decimation of flora, fauna and funga species, and overfishing causing damage to the ocean's ecosystems, to name only a few. Additionally, in densely built-up cities, the 'tabula rasa' approach of creating a clean slate through building demolition comes at a harmfully high carbon cost to the planet (Hourihane, 2021). Such activities, if left unchecked, will leave future generations vulnerable to the catastrophic effects of climate change, which is predicted to increase the frequency of natural disasters like droughts, heatwaves, famines, storms and flooding, amongst others (The Intergovernmental Panel on Climate Change, 2022). Not only does this pose a significant threat to urban resilience and the habitability of our planet, but communities will also suffer from an erosion of their sense of place, memory and heritage.

Our toolkit utilises the concept of 'Cathedral thinking', which is inspired by how grand cathedrals, like the La Sagrada Família, take generations to conceive, plan and build. In that regard, the ambitious vision to improve well-being through the built environment compels us to adopt a long-term approach to planning and execution, which will ultimately benefit and impact future generations. While short-term planning cycles often prioritise immediate concerns, this approach encourages us to extend our time horizons to look beyond ourselves and evaluate how our actions today will impact the natural and built environment of our grandchildren, and their own grandchildren. By doing so, we can advocate for more radical and transformative

city plans that leave a lasting legacy beyond our own lifetimes (The Alternative, 2020) (Krznaric, The Good Ancestor: How to Think Long Term in a Short-Term World, 2020). Urgent action is thus needed to adopt sustainable, regenerative, restorative, and circular development approaches which employ the responsible use of resources to guard against global planetary and social issues, whilst safeguarding the well-being of current and future generations.

The systemic and integrated approach of the framework hopes to be a springboard to propel further actions, discussions, and research to refine and expand localised strategies towards a better foundation of well-being in Singapore.

Figure 1. The systemic approach to well-being across principles and scales.

DEFINITION OF WELL-BEING

The ability of ***people*** *and* ***planet*** *to* ***live in harmony*** *in a way that brings about* ***sustainable flourishing, growth and restoration*** *in the dimensions of the natural environment; the heritage, development and circularity of the built environment; individual and community health (physical, social, psychological, eudaimonic); holistic education (technical skills, soft skills, creativity); resilient workforce and governance; participation in leisure and culture; economic contentment; a sense of play, agency and choice; resulting in the* ***highest possible quality of life for all current and future communities.***

HOW TO USE THE TOOLKIT

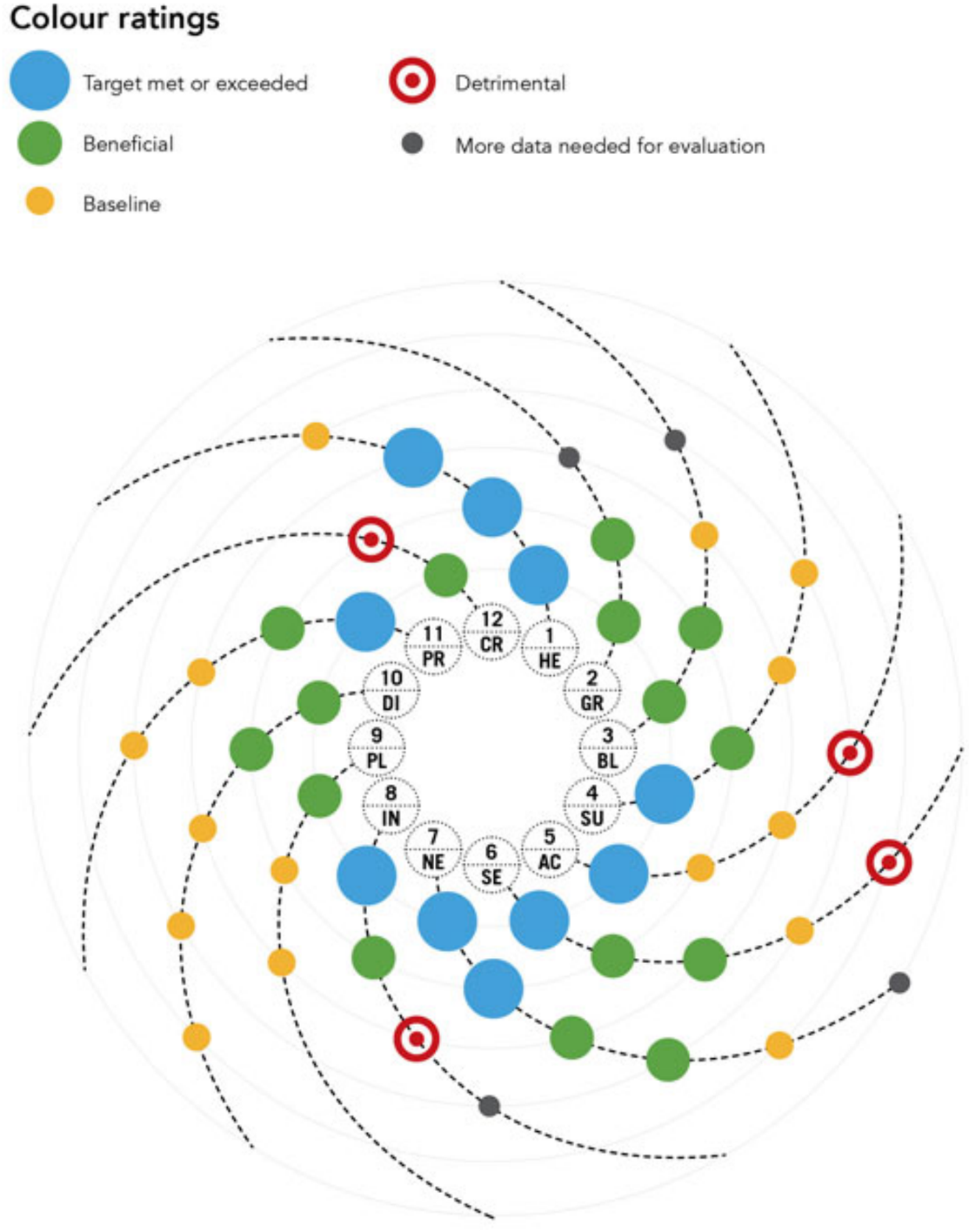

Figure 5. A sample scorecard of a project or site using the Traffic Light Evaluation system and colour rating (top)

Figure 6. The continuous cycle of evaluation during the lifetime of a site. (right)

HERITAGE

PLANET | PEOPLE | PROSPERITY

The principle of Heritage recognises the need to rejuvenate former structures to suit the uses of the future, easing the need to erase the past. Editable and adaptable structures enable communities to intensify and grow in place into the future, supporting the development of distinctive and familiar towns with communities in touch with their tangible and intangible heritage.

ABOUT THE PRINCIPLE

Many cities around the world are now facing the dilemma of how to develop a city beyond its current state, having to make tough decisions with respect to ecology, infrastructure, built elements and cultural elements. Some older buildings, which were previously well-utilised by former communities, have now fallen into disuse and disrepair. On the other hand, other buildings, which had gotten their identity from the various informal groups which frequent them, still end up earmarked for demolition, due their prime location, political factors, or the prospective economic benefits of a brand-new development.

There has been more research to suggest that the health and well-being of a city not only depends on its socio-economic and political stability, but on the well-being of the communities which inhabit them, as well as the well-being of the physical landscape and biodiversity (Anielski, 2018). How can cities be adapted to current communities, landscapes and uses, yet retaining a sense of place?

The concept of the 'palimpsest' was key to visualising the multiple layers of history that make up a city, whereby the traces of the past, the ever-evolving landscape of the city, and new constructions constantly build upon the legacy of the past. This is accomplished through preservation of built structures and adaptive reuse (Flint Ashery & Stadler, 2021). As an alternative to razing forests and buildings to the ground, cities ought to build upon the legacy of ecology, infrastructure, built elements and culture to truly make progress.

Dance studio

Muay Thai studio

Art mural

Outdoor hawker centre with lively shopfront

Food trucks

Sky garden

Water activities

Shading trees

Public rooftop exhibition

Pop-up stalls for local businesses and ground-up initiatives

Colourful painted textures invite play and demarcate safe usage

Climbable playscapes

Sociable and engaging seating

Platform seating beside water