

**AN ARCHITECTURE GUIDE**  
to the UN17 Sustainable  
Development Goals



**Sustainable Futures – leaving no one behind**

Hvordan arkitekturen kan bidrage til indfrielse af verdensmålene  
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# 1 NO POVERTY

*End poverty in all its forms everywhere*

Poverty is more than the lack of income and resources to ensure a sustainable livelihood. Its manifestations include hunger and malnutrition, limited access to education and other basic services, social discrimination and exclusion as well as the lack of participation in decision-making.<sup>1</sup>

Despite the fact that the global poverty rate has been halved since 2000, intensified efforts are required to boost the incomes, alleviate the suffering and build the resilience of those individuals still living in extreme poverty.<sup>2</sup>

To find out more about Goal #1, visit:  
<https://www.un.org/sustainabledevelopment/poverty/>

<sup>1</sup> Extract from UN's Sustainability Goals, available from  
<https://www.un.org/sustainabledevelopment/poverty>

<sup>2</sup> Extract from UN's SDGs Knowledge Platform, available from  
<https://sustainabledevelopment.un.org/sdg1>

## 1 NO POVERTY



**Architecture cannot lift people out of poverty, but the built environment can affect the impact of poverty on people's life through access to housing and institutions that are affordable.**

Through building design and planning architects can develop buildings and settlements that are cheap, safe and healthy. Examples of this can be found in social housing schemes, co-ops and projects for urban upgrading.

The overarching principle is that buildings and services must secure the highest possible value from available funds and resources. This demands the development of new architectural solutions. As part of this, buildings must be designed using products and materials that do not compromise the environment, while maintaining the affordability of current, environmentally problematic solutions, such as the metal sheet roof. Furthermore, architecture, landscape design and planning must adapt the built environment to climatic, geographical and cultural contexts, working with the surrounding environment and not against it, to increase quality of life while helping inhabitants save on electricity and other services. As part of this, architects working on development projects must engage the local communities and help weak and poor citizens gain ownership to the built environment of which they are a part. Finally, the building process itself must take place under conditions that protect the environment as well as poor and marginalized stakeholders.

# Non-profit Affordable Housing on Dortheavej

Photo: Rasmus Hjortshøj - COAST

## Origin/team

BIG – Bjarke Ingels Group,  
Lejerbo,  
MOE



# 3 GOOD HEALTH AND WELL-BEING

*Ensure healthy lives and promote well-being for all at all ages*

Ensuring healthy lives and promoting well-being for all at all ages is important to building prosperous societies. Yet, despite great strides in improving people's health and well-being in recent years, inequalities in health care access still persist.<sup>1</sup>

Many more efforts are needed to fully eradicate a wide range of diseases and address many different persistent and emerging health issues. By focusing on providing more efficient funding of health systems, improved sanitation and hygiene, increased access to physicians and more tips on ways to reduce ambient pollution, significant progress can be made in helping to save the lives of millions.<sup>2</sup>

To find out more about Goal #3, visit:  
<https://www.un.org/sustainabledevelopment/health/>

<sup>1</sup> Extract from UN report WHY IT MATTERS – Good Health and well-being – PDF

<sup>2</sup> Extract from UN's Sustainability Goals, available from  
<https://www.un.org/sustainabledevelopment/hunger/>

## 3 GOOD HEALTH AND WELL-BEING



**Most people spend the majority of their life indoors, making indoor climate an influential factor of health.**

Building design must enable a healthy in-door climate concerning light, acoustics, air quality and exposure to radiation and degassing. This is important in all buildings, but especially so in buildings with vulnerable users, such as hospitals. Building design must further avoid the use of environmentally hazardous materials and substances. Furthermore, transmission of diseases and illnesses often happens within the built environment and building-design as well as the layout of settlements and urban areas are crucial to curb the spreading of diseases and exposure to bacteria.

Infrastructure, health institutions and urban areas affect citizens' access to exercise. Buildings, settlements and urban areas must therefore be planned so that they allow and encourage physical activity. Urban layout also influences the risk of accidents, for example in traffic, and this can be addressed through design.

Architecture, simply put, plays a crucial part in creating a built environment that supports good health and well-being. Examples of this span greatly and can be found in housing that reduces the risk of infection with malaria, in patient-community buildings and in the design of workout equipment for public parks.

# The Magoda Project

## Origin/team

Architects: Ingvarsen Arkitekter.

Project Team: Jakob Knudsen, Lorenz von Seidlein,  
William N. Kisinza, Konstantin Ikonmidis, Emi Bryan,  
Salum Mshamu and Kiondo Mgumi



Photos: Konstantin Ikonmidis





# 7 AFFORDABLE AND CLEAN ENERGY

*Ensure access to affordable, reliable, sustainable and modern energy for all*

Our everyday lives depend on reliable and affordable energy services to function smoothly and to develop equitably. In fact, energy is central to nearly every major challenge and opportunity the world faces today. Be it for jobs, security, climate change, food production or increasing incomes, access to energy for all is essential.

Focusing on universal access to energy, increased energy efficiency and the increased use of renewable energy through new economic and job opportunities is crucial to creating more sustainable and inclusive communities and resilience to environmental issues like climate change.

However, the challenge is far from being solved and there needs to be more access to clean fuel and technology and more progress needs to be made regarding integrating renewable energy into end-use applications in buildings, transport and industry.<sup>1</sup>

To find out more about Goal #7, visit:  
<https://www.un.org/sustainabledevelopment/energy/>

<sup>1</sup> Extract from UN's Sustainability Goals, available from  
<https://www.un.org/sustainabledevelopment/energy/>

## 7 AFFORDABLE AND CLEAN ENERGY



**The built environment is a major source of energy consumption and a potentially crucial energy producer.**

Buildings must be designed both to limit energy consumption, for example by using materials and layouts that minimize overheating, and to produce and recycle energy, for example by storing excess heat during the day and employing it at night. This means designing and constructing buildings, settlements and urban areas that employ appropriate energy technology under given geographical, climatic and cultural conditions. Examples of this can be the use of daylight, natural ventilation or a choice of materials that support heating or cooling, such as heavy exterior walls in a hot and dry climate. The built environment can also contribute through the development of solutions that employ innovative sources of renewable energy.

Furthermore, the building industry must put a focus on total energy consumption from the extraction of materials, through the construction phase to the use and disassembly of buildings and structures. As part of this, energy intensive materials and materials produced with non-clean energy, such as coal-fired bricks, must be phased out or find new forms. Buildings must also be adapted to local climatic conditions so that solutions that would consume a high level of energy in use in a given context are avoided, such as exposed all-glass facades in a hot climate.

# Paramit – factory in the forest

**Origin/team**  
Paramit Malaysia Sdn Bhd,  
Design Unit Sdn Bhd,  
IEN Consultants Sdn Bhd



Photo: Lin Ho

# 17 PARTNERSHIPS FOR THE GOALS

*Strengthen the means of implementation and revitalize the global partnership for sustainable development*

A successful sustainable development agenda requires partnerships between governments, the private sector and civil society. These inclusive partnerships built upon principles and values, a shared vision, and shared goals that place people and the planet at the centre, are needed at the global, regional, national and local level.

Urgent action is needed to mobilize, redirect and unlock the transformative power of trillions of dollars of private resources to deliver on sustainable development objectives. Long-term investments, including foreign direct investment, are needed in critical sectors, especially in developing countries.<sup>1</sup>

To find out more about Goal #17, visit:  
<https://www.un.org/sustainabledevelopment/peace-justice/>

<sup>1</sup> Extract from UN's Sustainability Goals, available from  
<https://www.un.org/sustainabledevelopment/partnerships/>

## 17 PARTNERSHIPS FOR THE GOALS



Every city is built by many hands, and similarly we need to work together to reach the 17 sustainable development goals, as no single stakeholder can reach them alone.

The challenge of achieving the goals requires the involvement of all; from governments and institutional actors to researchers, businesses and citizens. Architects, designers and planners can contribute by sharing knowledge, promoting sustainable solutions and engage in collaboration with research and institutional partners, to develop and implement sustainable solutions. Examples span from non-profit partnerships to provide homes for the homeless to commercial partnerships to develop new sustainable products and services to the building industry. Key to the partnerships is a willingness to include new knowledge, test new practices, engage with local climate, culture and resources and work with end-users to ensure commitment and ownership in a life-cycle perspective.

Partnerships for the goals also include associations and networks of professionals who have committed to working for the goals. From the International Union of Architects (UIA) which brings together architectural associations from all over the world and represent architects in 124 countries to local study groups sharing know-how of green roofing systems. The challenges addressed by the goals are global; to achieve them we must work together across professional fields and national borders.

# The Climate Tile

**Origin/team**  
THIRD NATURE,  
IBF and ACO Nordic,  
City of Copenhagen,  
Malmo A/S, Technological Institute,  
Orbicon, Kollision, Smith Innovation,  
Realdania,  
The Market Development Fund



