

sexes than biological factors. Countries where there were greater opportunities for women both at school and in the workplace produced better results among girls in technical subjects. In fact, both boys and girls benefited greatly when they were brought up in societies where the rights of women were protected.

### South Africa's TIMSS outcomes

To explore issues of gender and schooling more broadly, it is worth considering the results of the 2011 Trends in Mathematics and Science Study (TIMSS), which were analysed by a team of researchers at the Human Sciences Research Council (HSRC). TIMSS South Africa evaluates mathematics and science knowledge for Grade 9 learners. Internationally, girls did not always lag behind boys. In 22 of the 42 TIMSS countries surveyed, including South Africa, there was no difference in the national averages for boys and girls in Grade 9.

### Boys face their own set of challenges at school.



Equally important are the experiences of boys and girls while learning. Boys face their own set of challenges at school that are all too often overlooked. Boys attending public schools who progressed through school without delays or interruptions performed significantly better than their older peers. Our TIMSS data also showed that boys had lower aspirations about their academic careers, showed less interest in mathematics, and engaged less often with an adult regarding their schoolwork than girls. Boys were also at a higher risk of being victims of bullying than girls, irrespective of the type of school they attended. Taken together, these findings raise important questions about how seriously boys take school and how safe they feel in their educational environments.

### Conclusion

It is clear that gender issues should not be relegated to the backburners of the policy agenda. The cost of ignoring the challenges faced by boys and girls in pursuing maths and science careers is high. The South African economy cannot afford to be deprived of such a valuable pool of talent.

Policy makers need to take a closer look at whether gender imbalances are shifting and how to address the difficulties experienced by both boys and girls; whether it be addressing gender stereotypes in subject choice or dealing with a hostile learning environment. We need to move beyond prior research to probe new gender complexities more carefully so that schools can be better and safer places for all our children. ■

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# URBAN REGENERATION AND SUSTAINABILITY: DURBAN'S CONFLICTING AGENDAS

To what extent do cities take sustainability into account in their urban regeneration strategies?

*Sylvia Hannan* used three mega-projects in Durban as a case study to investigate whether and how sustainability was incorporated into the city's planning and development.

In recent decades, urban regeneration has become increasingly important to cities regarding their urban development goals and aspirations. Mega-projects can be classified as an urban regeneration strategy, and these large-scale urban development projects are strategically used by cities to reposition themselves within the global competitive landscape. In the context of globalisation and neo-liberal<sup>1</sup> urban restructuring, mega-projects aim to enhance the image of cities, and have become increasingly prominent as tools to promote cities, as well as attract investment and tourism. Mega-projects consequently play a vital role in the development and urban regeneration of cities, such as Durban.

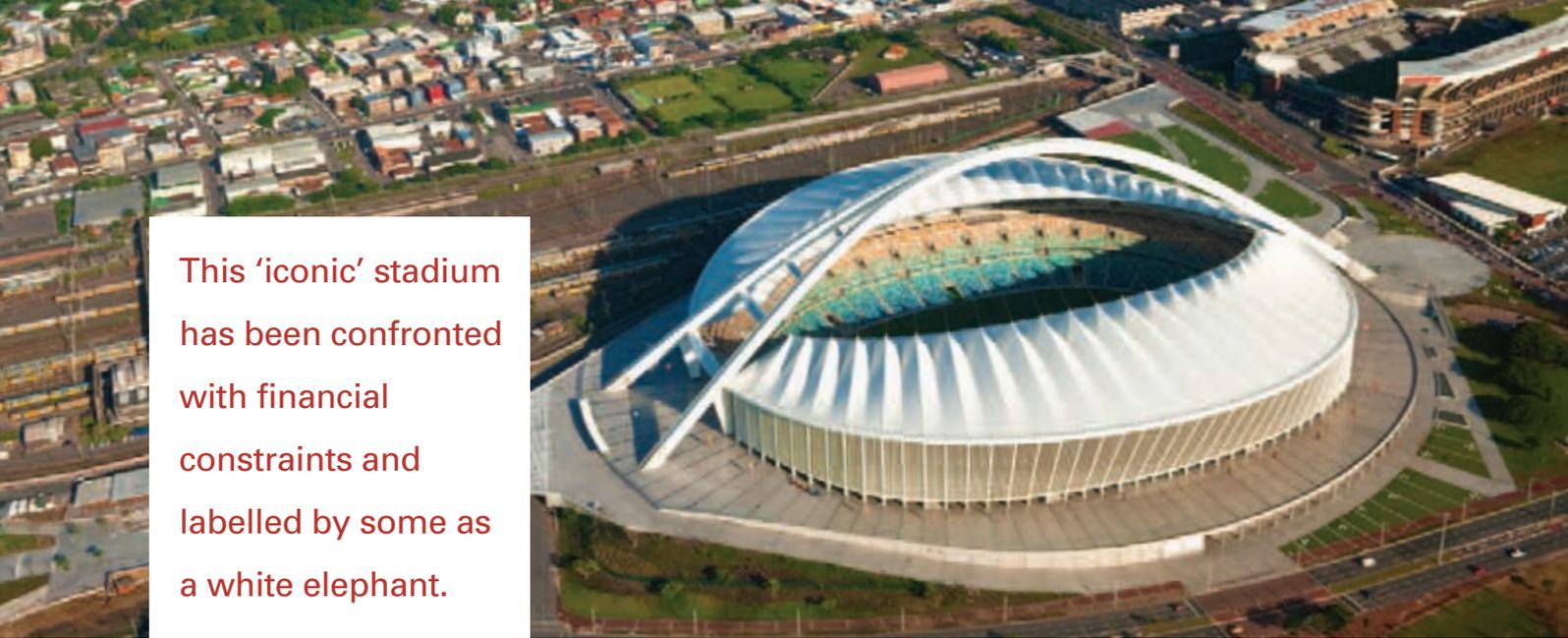
Within the same context, there is a need to promote sustainable cities, and sustainability has therefore emerged as a central concept in the management of cities. Sustainability represents the ideal scenario that adequately incorporates economic, social, ecological and governance aspects within the planning and development of cities.

Urban regeneration and sustainability have therefore emerged as parallel agendas within urban policy and planning. An investigation into three of Durban's mega-projects, to establish whether these agendas were mutually supportive or conflicting, revealed some important findings.

### Planning and development in the city of Durban

Durban, as a South African city, has been shaped by the legacy of apartheid as well as processes of globalisation. As a result the city faces a particular set of challenges, as it must aim to compete within the global economy through urban development and regeneration strategies, while at the same

<sup>1</sup> Neo-liberalism refers to governance strategies promoting the free market, and is associated with the adoption of pro-growth and entrepreneurial strategies.



This 'iconic' stadium has been confronted with financial constraints and labelled by some as a white elephant.

time tackling issues of poverty, inequality and unemployment. Decisions therefore need to be made regarding the pursuit of pro-growth and pro-poor objectives within urban regeneration strategies, while also ensuring that sustainability is considered within development.

The need to pursue economic growth has become a national imperative, and South African cities, including Durban, have therefore predominantly focused on the implementation of pro-growth strategies. These strategies prioritise the neo-liberal agenda, and include the development of mega-projects.

The focus on mega-project development intensified when South Africa was selected as the host country for the 2010 FIFA World Cup, as this sparked the planning and development of a number of mega-projects throughout the country. However, the role of mega-projects in the country has been critiqued by some, and they are consequently surrounded by debate, and in some cases extensive opposition.

**Methods**

The relationship between urban regeneration and sustainability in Durban was examined through the exploration of the city's urban policy and regeneration landscape, and the specific role that mega-projects play in the city. Subsequently, the three mega-projects were assessed in terms of 16 sustainable city principles that were developed to determine the extent to which they encompassed sustainability, and thus the extent to which the city's urban regeneration strategies incorporated sustainability. To achieve this, the relevant literature, policy and planning documents, newspaper articles, and internet sources were reviewed, and a number of interviews with relevant stakeholders were conducted. These data sources also contributed to the development of the 16 principles (Figure 1).

Figure 1: Sustainable city principles



Source: S.Hannan

## Durban's mega-projects

The three mega-projects<sup>2</sup> that were examined at various stages of planning and development in the city were the Moses Mabhida Stadium, the Point Development and the proposed Warwick Mall. The planning and implementation of each of these projects involved the local state as well as the private sector, to varying degrees. The location of these projects in the city is shown in Figure 2.

Figure 2: Map showing the location of the three mega-projects within Durban



## The Moses Mabhida Stadium

The Moses Mabhida Stadium was constructed on the site of the former Kings Park Soccer Stadium for the 2010 FIFA World Cup. The stadium and its precinct were designed to be used on a daily basis by the residents of the city, and feature an entertainment node consisting of an amphitheatre, retail space, restaurants, a sky car and the People's Park. This 'iconic' stadium has however been confronted with financial constraints since its completion, and has been labelled by some as a white elephant.

## Warwick Mall

These illustrations depict an artist's impression of the previously proposed Warwick Mall. The plan for the 22 000m<sup>2</sup>, R400 million mall emerged from the city's plans to revamp and reconfigure the transport hub of Warwick Junction as part of the urban regeneration associated with the World Cup. The plan was met with extensive opposition from market traders, citizens and academics, and court proceedings resulted in the plan being set aside in 2011.

<sup>2</sup> The definition of mega-projects is contentious, however these three projects were defined as such for the purposes of the study.

## The Point Development

The aim of the Point Development was to create a prestigious mixed-use environment consisting of commerce and hospitality industries and leisure activities, including a five-star hotel and retail zone, apartments, offices, canals, a marine theme park (uShaka Marine World), and the construction of a small craft harbour. The development has had some success, however uShaka Marine World has encountered a number of financial issues, and the proposed small craft harbour has not progressed past the planning stage as it has been surrounded by criticism and controversy.

**Sustainability was not effectively addressed within urban regeneration initiatives in the city.**



## Results and conclusion

Elements of both urban regeneration and sustainability were identified within Durban's policy and planning rhetoric and documents, which highlighted that planning goals within the city were aligned with both of these agendas.

When examining the practical incorporation of the sustainable city principles within the three mega-projects, it was found that some of these principles were addressed to varying extents. However, some of the principles, such as 'ensuring social justice' and 'contributing to intergenerational and intragenerational equity'<sup>3</sup>, were not incorporated to a significant degree, or were even disregarded in some instances. It was therefore concluded that, particularly with regard to mega-project development, sustainability was not effectively addressed within urban regeneration initiatives in the city.

Consequently, it appears that although urban regeneration and sustainability exist as parallel agendas within the city, there has been a lack of co-ordination between them, and greater emphasis has been placed on achieving pro-growth urban regeneration. The neo-liberal agenda has therefore become dominant in the city's planning and development landscape, resulting in sustainability being sidelined. It was therefore determined that these agendas were conflicting rather than mutually supportive within Durban, which could have negative impacts on the future development of the city.

To conclude, to ensure a sustainable future for Durban, sustainability needs to be practically incorporated within urban regeneration and development strategies to a greater extent. This will require a fundamental shift in the priorities and culture of the city, with further emphasis being placed on a long-term strategic view that includes social, economic, ecological and governance dimensions. ■

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<sup>3</sup> Intergenerational equity highlights the importance of considering the needs of current and future generations, while intragenerational equity is concerned with reducing inequality within the current generation.