A Review of the Appropriateness of International Environmental Assessment Tools for a Developing Country

Introduction

The concept of sustainable development has been defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" [10]. This was recognized as a balance between the environmental protection, economic growth and social development dimensions in 1992 at the Rio Declaration by the United Nations NGO Committee on Sustainable Development [17].

According to Cole [3] environmental assessments and labeling programs are currently undertaken on a voluntary basis, but are considered as having the potential to create market demand for green buildings.

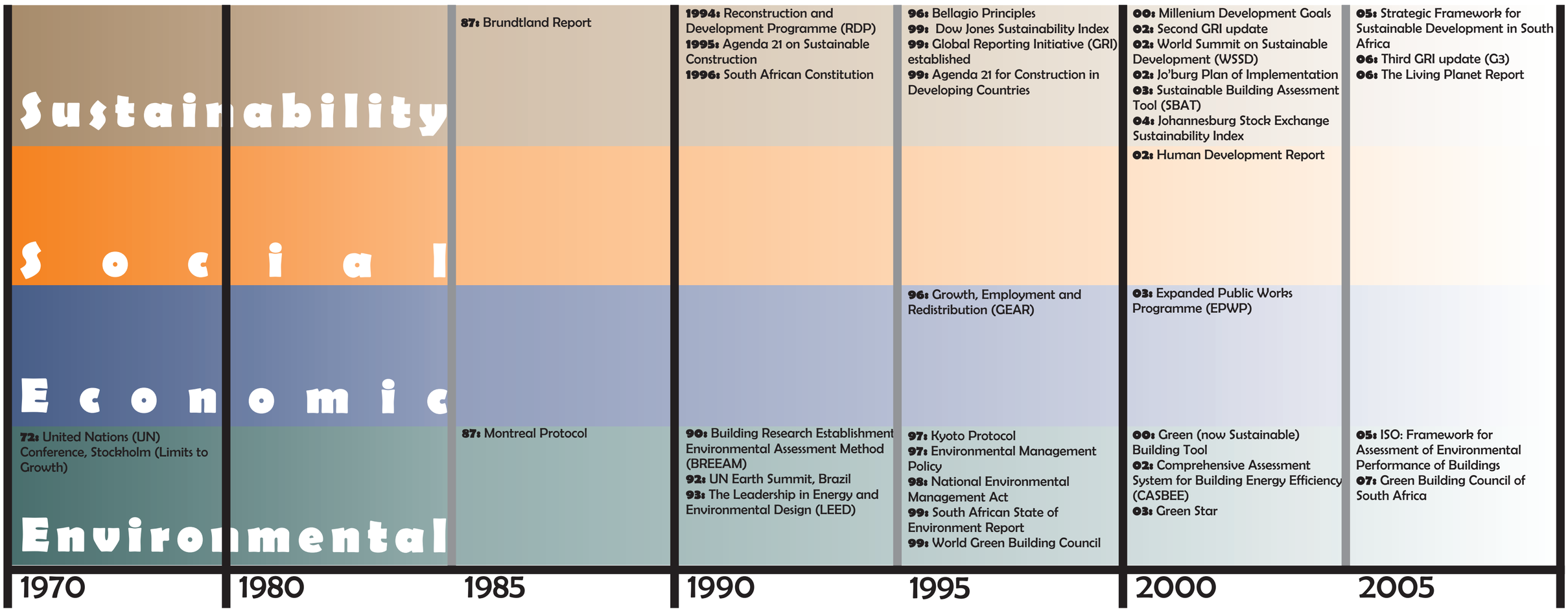
Building environmental rating systems provide a way of showing that a building has been successful in meeting an expected level of performance in various declared criteria [2]. Cole [3] adds that it is in the adoption and promotion of such systems that contribute significantly to the shifting of the public's awareness and perceptions of what building quality is. This can be confirmed by the increasing number of people demanding information on environmental aspects of buildings, such as whether or not a building was good for their health or if it fit into a sustainable society since the development of the very first building assessment tool, BREEAM.

Relevance: Currently almost each European country, the United States of America, Canada, Australia, Japan, Hong Kong and South Africa have their own assessment tool [4]. Da Silva [4] says that each of these tools shares a "common goal to stimulate market demands for higher environmental performance levels" and with "the remarkable exception of South Africa's SBAT," all of the existing tools "deal exclusively with the environmental dimension of sustainability".

Scope of Research: The research focuses on the review of current literature and the review of the five rating tools used by the existing member countries of the World Green Building Council (WGBC).

Research Aim: The research aimed to review changes that have occurred globally within the sustainable development field. Then in light of the changes, asked how this affected the SBAT and how the SBAT compared with international tools used by other national GBCs.

Chronology of selected Global Commitments to Sustainable Development [7, 17], Building Assessment Tools [5, 11, 12, 13, 14] and South African Legislation [15, 16]



South African Context

The Republic of South Africa is considered to be the most developed and modern country on the African continent. Since 1994, when the first democratic government was elected, South Africa has had positive economic growth [9]. However, on the other side of these positive aspects, is a country which still has major social and economic problems, including poverty, inequality, unemployment, HIV/Aids and property and personal insecurity [1].

Conclusions

There have been some activities within the sustainable development field since the SBAT was completed in 2003; however none of these activities negatively affect the SBAT framework.

In contract, they serve to confirm that the SBAT reflects the progress of the wider field of sustainability performance measurement, which seeks to broaden "the scope of discussion beyond environmental responsibility" by embracing "the wider agenda of sustainability" [3]. Kaatz et al [8] also found that the tool was the most suitable tool for a developing country context.

The SBAT is currently the only assessment tool which assesses all three aspects of sustainability; however, it has not maintained its potency through the release of updated versions as suggested by Cole [3].

Matrix of Selected Global Commitments and Environmental Assessment Tools

Summary of Selected Global Commitments to Sustainability (i.e. MDGs, ISO: Framework for Environmental Assessment, GRI Guidelines, The Living Planet Report)	BREEAM	CASBEE	Green Star	LEED	SBAT
Training and Education					■
Health		■			■
Public / Stakeholder participation and awareness					■
Poverty eradication					■
Employment					■
HR Investment and procurement policies					■
Economic performance					■
Ensure environmental sustainability	■	■	■	■	■
Env. impact on buildings (materials)	■	■	■	■	■
Env. impact on buildings (energy, water, waste)	■	■	■	■	■
Env. impact on buildings (emissions)	■		■	■	
Environmental protection	■		■	■	
Transportation	■		■		■
Accessibility		■			■
Adaptability	■	■			■
Durability / Maintainability	■				
Design and Innovation			■	■	

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