

CIB2007-423:
*Ecological Sustainability in
Construction: A Vision for 2025*

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There are two separate languages now – the language of economics and the language of ecology, and they do not converge.
- Manfred Max-Neef

2025: Population growth and urbanisation

- Now: 6.5 billion
- 2025: 8 billion ...+80 million per year
- 80% of growth in developing countries
- 60% of people living in cities

...we are further removed from the rhythms of nature

2025: Nature and Resources

- Still the backbone of infrastructure
- Water scarcity and land degradation increasing
- Reliance on hydrocarbons continues
- Alternative energy forms and demand management
- Increased activism required from developing world

...increased activism required from developing world

2025: Human Poverty

- Starvation and malnourishment decreasing since WWII, except sub-Saharan Africa
- Disparity between rich and poor to grow
- Large disparities in earnings within and between countries

... focus of the MDGs

2025: Knowledge and Technology

- Super-computers
- Nanotechnology
- Violation of individual privacy
- Leapfrog obsolete technologies
- Best students have unlimited opportunities

...Developing world must invest in innovative research

2025: Globalisation and Governance

- Of 100 largest economies, most are corporations
- Geography no longer limiting
- Economic and political clout of corporations
- Increase in nationalism, xenophobia

... corporate citizenship a priority

An Ecological Approach

Networks

Cycles

Cooperation

Diversity

Ethical
optimisation

Networks

- Nested with soft boundaries
- Mutually dependent
- Crucial to evolutionary novelty

... mutually supportive systems

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- Zero net waste
- Construction is linear, wasteful
- Mentoring, coaching

... eliminate all forms of waste

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- Cooperation not competition is the most competitive strategy
- Competition vs excellence

*... from cooperate to compete,
to compete to cooperate,
to cooperate to cooperate*

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Diversity

- Confers resilience
- Nurtures innovation
- Not altruistic

... eg South Africa's BEE scorecard

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(Ethical)
Optimisation

- Dynamic response
- Communication and feedback
- Corporate citizenship

... solutions are interconnected

Conclusions

- Development professionals play a pivotal role
- Continuity beyond eco-political horizons
- Advocacy and pro-active involvement in policy development
- Will require a change in mindset: ecological literacy