



ENGINEERS AND SOCIAL ISSUES

TRANSACTOR OR TRUSTED ADVISOR?

What are the issues?

- **Sustainable development**
 - Since 1992
 - Insufficient progress
- **Millennium Development Goals**
 - Since 2000
 - Won't meet 2015 targets
- **Climate change**
 - Since 1997
 - Adaptation vs mitigation
 - Not much progress on mitigation



What is the timeframe?

- **10 to 20 years**
- **Issues will come to a head during your working life**
- **Our projects designed for 25, 50, 100+ year lifetime – if you get it wrong we live with the consequences for a long time**

Why us?

- **World wide our industry designs 52% of the infrastructure that gets built each year – projects worth \$5.6 trillion – Canadian percentage far higher**
- **If you do things exactly the same as you used to, nothing changes**
- **Are we responsible?**
- **Transactors or trusted advisors?**
- **Who should lead?**
- **Ethical considerations**

What are the design issues?

- **Familiar**
 - Environmental protection
 - Energy use
 - Water use
 - Material use
- **Not so familiar**
 - Availability of Food
 - Health and safety
 - Human rights
 - Cultural rights
 - Development possibilities

What are the goals?

- **Effects of design to regulation**
 - **Obsolescence**
 - **No net improvement**
 - **Insufficient stimulus**
- **Real targets zero and 100%**



Reality

- **Decide for yourself**
- **Use influence with clients**
- **Focus your company**
- **Celebrate your experience**
- **Be selective**
- **Don't be afraid to lead**