Educating business on sustainability- why most attempts limit their own success.

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Summary:
Many traditional education programs on business sustainability involving provision of pamphlets and case studies have resulted in only minor improvements in the businesses targetted, despite the energy and enthusiasm of Project Officers and the willingness of business to be involved. This paper explores why this is the case and shows that many programs have unintentionally limited their own success. Suggestions of how systems approaches can help prevent this are highlighted. (For further information on the redesign of education programs see related paper presented).

Contents:
- Benefits to business of becoming sustainable
- Traditional Education Programs
- Case Study: Changing Streams Pollution Reduction Project- what was it, what was achieved and why didn't we receive larger changes
- Limits to success archetype
- How systems tools can help
- Conclusions

There are many benefits to business if they become sustainable these include:
Economic and Regulatory Benefits:
- enhanced competitiveness and efficiency
- reduced waste treatment and disposal costs
- reduced compliance costs of permits, monitoring and enforcement
- reduced production costs through better management
- increased income derived through sale or reuse of waste
- enhanced knowledge of how to stay in compliance
- reduced forced regulatory requirements
- reduce occupational health and safety costs

Liability and Public Image Benefits:
- reduced liability for environmental problems at onsite and offsite treatment, storage and disposal facilities
- reduced risk of spills, accidents and emergencies
- improved public awareness of environmental hazards and prevention measures
- improved image, seen as environmentally friendly.

Environmental and Health Benefits:

- protection of the environment from further degradation
- prevention of irreversable environmental problems
- increased longevity of natural resource supply
- reduced risks to human health and safety
- reduced worker exposure to toxic chemicals

There are so many benefits to business of becoming sustainable they should be jumping to come on board. But they're not, why not?

Traditional education programs usually focus on providing brochures and case studies, offering training and advice, site visits and sometimes grants for improvement. Such programs should in theory be effective. Yet the outcomes of such projects are minimal – why? Before giving you my opinions on part of the reasons we'll go through a case study.

The Changing Streams Pollution Reduction Project was a joint project between local government, the environment protection authority and a local catchment water management board. I managed the project which involved 2 000 businesses, and 56 000 households. It was designed to educate the community and business on sustainability and to reduce pollution into the environment.

Case Study: Changing Streams Pollution Reduction Project

Community Activities:

- Education kits to all households
- Competitions
- Olympic Champion- Kate Slatter, Gold Medal Rower
- Displays
- School visits
- Field Days / Cycle Tours

Case Study: Changing Streams Pollution Reduction Project

Industry Activities:

- Education kits to all businesses
- Industrial resource exchange
- Grants for improvement
- Demonstration Sites
- Site visits
- Displays
- Field Days
- Training

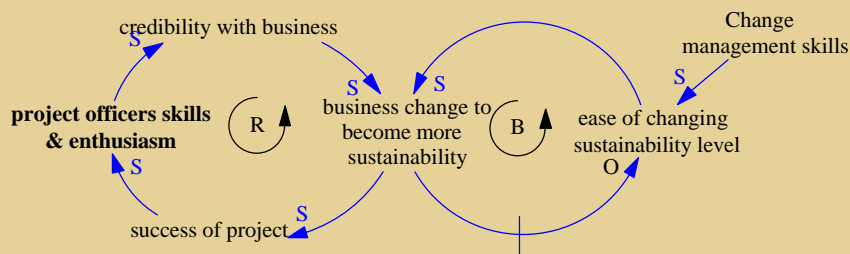**Outcomes of the Changing Streams Pollution Reduction Project:**
- awareness increases
- minor changes to business
- reduced pollution levels into waterways

- all parties feel it was worthwhile and want it to continue
- enables legislative teeth in future as natural justice fulfilled
- but could we have achieved more?

Why didn't we receive larger changes to business sustainability levels?
- Project Officers could only advise on generic, simple improvements so this is what was achieved
- Project Officers did not have business backgrounds or qualifications and talked in green language
- while we did highlight benefits to business of changing we didn't specifically address their mental models and the barriers these presented
- we didn't help business address the internal change management issues
- the system surrounding business affected their ability to change eg: competitor actions, laws, lack of enforcement
- people didn't understand the system and blamed each other

Limits to success archetype:

credibility with business   Change management skills

S

project officers skills & enthusiasm   R   S   S   business change to become more sustainability   B   ease of changing sustainability level

S   S   O

S   success of project

- Project officer skills and enthusiasm level can have +ve or -ve impact on project success -> new graduates

- Change management skills of business effect outcome -> projects don't address this

Many of these kinds of projects use new graduates from the environmental sciences to run the projects. The project officers generally aren't trained in business issues and do not understand business needs and speak in green language, this reduces their credibility with business and limits the success of the projects. Being new to the working world they don't have detailed knowledge of what business can do and can only advise on generic, simple improvements, so naturally this is what is achieved in the project.

Similarly the projects focus on telling business what to do but not helping them with the change. Change is very difficult in business and many who understand the need to become sustainable and want to, fail because of poor change management skills.

If one does not understand the whole system at play it is tempting to think that the way to improve the success of such programs is to simply spend more money on them, send out more case studies and information to business. I believe, that this is unlikely to result in significant improvements as it is the barriers to change, the system surrounding the project and the businesses that is affecting the success level and we need to change the design of our programs to better assist business.

Systems tools provide many ways to help improve such situations. Even if it is just identifying all the needs of the various stakeholders and their mental models. This allows you to design your educational material accordingly and to avoid the conflict that may occur when mental models clash.

There were many mental models of business managers identified during the project, some of these included:
- If I change before my competitors I'll go out of business
- I don't need to do it as the Government isn't enforcing the laws yet
- It's just another management fad that will come and go
- My business isn't polluting, its not relevant to me
- The world's not falling apart, this isn't really important
- Becoming sustainable means altering my business completely
- It's just too hard, too expensive
- You're hypocritical telling us to change, when the laws still allow brown activities, we can't change until they do

The mental model of the manager involved will effect how they respond to your efforts and material. For many of the mental models above providing them with details of the benefits of becoming sustainable and case studies is not going to result in action. Yet this is what many of our traditional programs do.

The use of group model building, influence diagramming, learning environments, the systems thinking pyramid and other tools all offer ways to help improve the outcomes achieved by such programs through increasing understanding and allowing managers to explore the situation on their own. (Further information on how ST/SD can help is presented in a related paper at this conference.)

Conclusion:
Traditional education programs for business sustainability have resulted in minimal improvements. Often the conditions that they operate in limit their own success. Systems

tools give us an opportunity to improve the design of such programs and hopefully gain further improvements. A link to change management is also required.

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