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Eight Principles of Sustainability

- 1** Any materials extracted from the earth should not exceed the environment's capacity to disperse, absorb, recycle or otherwise neutralise their harmful effects to humans and the environment
- 2** Synthetic substances in their manufacture and use should not exceed the environment's capacity to disperse, absorb, recycle or otherwise neutralise their harmful effects to humans and the environment
- 3** The biological diversity and productivity of ecosystems should not be endangered
- 4** A healthy economy should be maintained, which accurately represents the value of natural, human, social and manufactured capital...
- 5** Individual human skills, knowledge and health should be developed and deployed to optimum effect
- 6** Social progress and justice should recognise the needs of everyone
- 7** There must be equity for future generations
- 8** Structures and institutions should promote stewardship of natural resources and the development of people



Challenges for Environmental Management Businesses

Challenge Example	Response	Implications for sustainable development	Challenges for the sector
Growing interest in visiting the countryside leading to more visitors to gardens, areas of natural beauty, etc. More traffic on rural roads, greater demands on infrastructure etc.	Increased protection of natural environment. Expansion of visitor facilities. Greater encouragement to use public transport, influence on transport providers etc.	Positive: rural business and employment opportunities, need for environmental management etc. Negative: Increased traffic, congestion, pollution and accidents, overcrowding and environmental damage at popular places etc.	Coping with increased demand for services. Greater expectations from the public, funding bodies etc. to protect the environment. More competition.



Summary of the Five Capitals

Capital is traditionally understood as accumulated wealth in the form of investments, factories and equipment. In reality, our economy and all companies need five types of capital to function properly.

Natural Capital

Natural Capital is any stock or flow of energy and matter that yields valuable goods and services. It includes:

- Resources, some of which are renewable (timber, grain, fish and water), whilst others are not (fossil fuels)
- Sinks, which absorb, neutralise or recycle wastes
- Processes, such as climate regulation.

Natural capital makes possible not only manufactured capital, but life itself.

Human Capital

Human Capital consists of our health, knowledge, skills and motivation, all of which are required for productive work. Enhancing human capital, for instance through investing in education and training, is vital for a flourishing economy. Poverty is both morally indefensible and socially inefficient in that it prevents millions of people from fulfilling their potential and becoming engaged in the creation of wealth. The indigenous skills are those passed down through generations, which we could be in danger of losing today in our rush to embrace new technology.

Social Capital

Social Capital is the value added to any activity or economic process by human relationships and co-operation. Social capital takes the form of structures or institutions that enable individuals to maintain and develop their human capital in partnership with others. It includes families, communities, businesses, trades unions, markets, schools and voluntary organisations.

Manufactured Capital

Manufactured Capital comprises material goods such as tools, machines, buildings and other forms of infrastructure that contribute to the production process but are not used up in it.

Financial Capital

Financial Capital plays an important role in our economy by reflecting the productive power of the other types of capital. It enables them to be owned and traded. However, unlike the other types, it has no intrinsic value: whether in shares, bonds or banknotes, its value is purely representative of natural, human, social or manufactured capital.



Analysing my Business using the Five Capitals

Activities in my business that increase or decrease the capital	
Natural	
Human	
Social	
Manufactured	
Financial	



Action Planning

For the short term and the long term, consider one or more actions that will improve the sustainability of your business and analyse the actions with regard to the Five Capitals.

	Short term	Longer term
Natural		
Human		
Social		
Manufactured		
Financial		



Evaluation

Put a mark in the appropriate column and add any comments you wish.
0 = poor, 3 = excellent

Activity	Thought-provoking				Helpful for my business				Comments
	0	1	2	3	0	1	2	3	
Introductory activity									
Global challenges									
Case study and Business case for SD									
Joined-up practice									
Applying systems thinking: Task 1									
The Five Capitals model									
Applying systems thinking: Task 2									
Action Planning									

How will the PP4SD training help your business planning?

Is there anything else that you would have liked included in the training course? If so, the PP4SD team at Swansea University would be pleased to hear from you. Indeed, we would be pleased to hear any comments you may have. Thank you!