

Policies and their enforcement in the process towards sustainability

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Abstract

The dilemma of sustainability is that it is difficult to enforce, and in general its enforcement is perceived to be accompanied with a reduced quality of lifestyle and profit. The majority of people agree that sustainability is important, hence the development of a number of policies and protocols that advocate a reduction in the exploitation of natural resources. The huge problem faced by these initiatives is that it is not sufficiently enforced and that the main initiators for the environment, the United Nations (UN), are seen to be insufficiently empowered to use coercion.

This paper discusses existing policies such as the Maastricht Treaty, The Brundtland report, The Kyoto Protocol and Agenda 21, to examine strategies to improve the earth's environment. The influence of major agencies that assist with sustainability such as the United States' Environmental Protection Agency (EPA), The World Energy Council and Major Financial institutions are discussed briefly.

The enforcement of environmental issues remains a complex concern that is best achieved through participation and co-operation rather than coercion. The difficulties in enforcing environmental policies are discussed, as are ways of overcoming possible pitfalls.

Keywords: social issues, environmental policies.

1 Introduction

Sustainable development is a complex concept that aims to reconcile two apparent contradictory processes: economic development and environmental protection (Baker [1]). Policies that promote sustainable development will make



all stakeholders aware of, and accountable for the environmental costs of their actions. As stated by Baker, this is bound to be deeply unpopular with consumers and producers because of the significant impact it will have on profitability and quality of life. It is the aforementioned fact that makes sustainability hard to enforce, and has provided a lot of summits, advisers, and policies that few are prepared to follow at the risk of disapproval. Most organisations are more prepared to donate money to development initiatives than to work towards their own accountability. The general attitude of ‘pay cash and your sins are absolved’ prevails in the arena of sustainable development. This paper aims to investigate a variety of policies available, and the way in which these policies can be enforced or implemented. This paper will not cover the problems of the exponential expansion of the global population, which is the major source of a non-sustainable future, but will instead look at theories on methods of how sustainable development can be achieved.

2 Existing models

Many policies regarding Sustainable Development have been created. The most important and far-reaching of these are the Maastricht Treaty, the Brundtland Report, and Agenda 21. The focus of these policies is to define sustainable development, and devise methods according to which the world can work towards a Sustainable Future.

2.1 The Maastricht Treaty

According to the Center for International Earth Science Information Network (CIESIN) [2] The Maastricht treaty (also known as the Treaty on European Union) is an amendment of the Treaty of Rome, and includes specific references to environmental policy and sustainable development, and was signed in 1992. This treaty is incorporated into the governing of the European Union (EU) and from a variety of source the EU seems to be globally the most progressive in achieving sustainability.

2.2 The Brundtland Report (known as “Our Common Future”)

The publication of the Brundtland Report, also known as “Our Common Future” in 1987 under the initiative of the United Nations stimulated a range of actions, including the Earth Summits in 1992 and 2002, and the Agenda 21 programmes. The Brundtland report focuses on strategies to improve short-term human well being without threatening the environment in the long term.

Sustainability defined by the Brundtland report is “the ability of current generations to meet their needs without compromising the ability of future generations to meet their own needs.”

The three main components of sustainable development are addressed in the Brundtland Report are social equity, environmental protection, and economic growth.



2.3 Agenda 21 and the Rio Principles

Signed in Rio in 1992, Agenda 21 is a global plan of action to be taken in every area in which human impact on the environment. It is a global partnership with the aim to protect the integrity of the earth, and to recognise the interdependence of existence on earth. The Rio Declaration consists of twenty-seven principles that support sustainable development and the importance of involving all stakeholders (from governments to the children in school) in sustainable development.

At the World Summit on Sustainable Development (WSSD) held in Johannesburg, in 2002, the full implementation of Agenda 21, and the Commitments to the Rio principles was re-affirmed. The list of participating and signatory governments to agenda 21 is not available.

2.4 Kyoto Protocol

The Kyoto Protocol is an agreement between the developed nations to limit their greenhouse gas emissions in comparison with the levels emitted in 1990. According to the Energy Information Administration, the US agreed to reduce their emissions by 7% in the period 2008 to 2012 [4].

3 Agencies for sustainability

3.1 EPA (United States' Environmental Protection Agency)

The EPA [9] is a group of professionals such as engineers, scientists, and policy analysts employed by the president of the United States, working for a cleaner, healthier environment for the American people since the 1970s. Their primary functions involve the development and enforcement of regulations, the performance of environmental research, the sponsoring of voluntary partnerships, and furthering environmental education. The EPA has full law enforcement authority since 1988, and work closely with the other law enforcing authorities of the US to bring environmental criminals to justice. The author suggests that an international EPA is needed to aid global sustainable development.

3.2 Financial institutions

As stressed by Dibble [3], Institutions could do a number of things to promote sustainability. Among these are the promotion of transparency by making information available, promote co-operation between the IMF (International Monetary Fund), the World Bank, the WTO (World Trade Organisation) and the UN.

The World Bank is in a position of power where it can dictate conditions under which it can lend money to governments. Some of its conditions under the "Structural Adjustment Programs" on recipient countries seem to be against sustainability. Downsizing public programs for social programs in developing



countries is not a good approach towards “fighting poverty”. The author believes that the World Bank has a hidden agenda just as the US has a hidden agenda in its “war on terrorism”. It is indeed worrying that one of the most powerful institutions in the world is not geared towards sustainability on earth.

One of the issues that came from the Rio+10 summit in Johannesburg is that there is not sufficient corporate accountability, and that multinationals should improve their practices. This could only be achieved through pledged commitments by the multinationals, and proper follow-up mechanisms.

3.3 World Energy Council

The World Energy Council (WEC) [11] is an independent (non-governmental, non-commercial and non-aligned) charity registered in the UK. It covers all the types of energy available today, including renewables. As stated on their web site: “WEC is well known on the global energy scene for its authoritative reports, analyses, research, case studies, medium and long-term energy projections, and policy and strategy recommendations”. Over ninety of the world’s largest energy consuming and producing countries have member committees of the WEC. In this light, the WEC is a good resource for obtaining support for renewables. The WEC focuses on the following aspects in their work regarding energy policies:

- Market restructuring and liberalisation
- Energy pricing and subsidies
- Sustainable development
- Energy poverty
- Assisting developing countries
- Enforcing and implementing policies

The difficulty of sustainable development lies not in creating policies for its existence any more, but in the execution of the policies. The very nature of Sustainability is extremely unpopular with traditional expansionist economic views, because the principles go against private selfishness whether it is a corporation or a single person. For this reason it is important to find ways of implementing Sustainability.

3.4 Rio+5

In 1997, the Rio+5 global campaign was launched by several organisations that support the principles of sustainability. This was done to translate the Earth Summit Commitments into reality.

Rio+5 identified key issues hindering the implementation of sustainability. People feel inadequate and that an individual can have no impact on the environment, Municipalities are not involved in the decisions that affect them, and local governments expect handouts from federal governments, and feel powerless to influence national policies. The population’s mistrust in local politicians also inhibits meaningful participation.

Issues that drive the implementation of sustainability were perceived as using a Local Agenda 21 as guidance, combined with political willingness for a



successful Local Agenda 21. Rio+5 emphasise the importance of the exchange of information among local governments regarding the implementation of Agenda 21, and the facilitation of civilians to take the initiative in sustainable development, as well as good communication between local authorities and stakeholders. Stress is also placed on allowing for development from local level first, then moving towards national levels, and to acknowledge that poverty issues are related to the environment.

The mechanisms for implementing sustainability identified by Rio+5 are campaigns to educate the public, using peer tutors for specific projects and data collection, and a village-based approach to participation – even in cities. A neighbourhood would be treated as a village where its residents get “empowered”. Another important mechanism is for local politicians to work at gaining the trust of people for meaningful participation.

3.5 Rating systems

Rating systems are one of the most effective ways of influencing the consumer into sustainable development. By educating the consumer, a demand is created for more energy-efficient appliances, buildings and vehicles. Positive results have come from rating systems in California. With the Californian federal standard for refrigerators’ use of electricity, sales of refrigerators in 1980 were not allowed if they use more than 45 units of electricity. By 1997 the use of electricity by the average refrigerator sold was down to 25 units (Hawken et al. [6]). Developed by members of the U.S. Green Building Council, LEED (Leadership in Energy and Environmental Design) [10] is voluntary, national standard for creating sustainable buildings. The rating system was created to promote integrated building design practices, raise consumer awareness of green building benefits, and to create a common standard of measurement. Australia is also progressive towards Green Building Rating systems, and under the guidance of the Green Building Council of Australia, a number of rating systems are currently in use.

3.6 The Tragedy of the Commons applied to co-operation

In order to develop a sustainable outcome for the future, it is important to get the co-operation of all stakeholders. This in itself provides a social dilemma called The Tragedy of the Commons (Hardin [5]) where a shared finite resource is over-utilised. When a small percentage of users over-utilises the resource, it is to their benefit, and against the common good. When more users over-utilise the resource, it gets destroyed, and nobody benefits from it anymore. Nickerson [8] suggest the best outcome for sustainability is privatisation combined with socialism, where small, manageable groups are held accountable for their own resources. With smaller groups, freeloading is easier to identify.

Nickerson [8] states that there are a number of suggested approaches by about eight different experts. These approaches include governmental initiatives such as laws to regulate commons uses and the enforcement of compliance, the use of education and persuasion, and appeals to peoples’ moral convictions and



religious beliefs. Privatisation and the provision of incentives for co-operative behaviour are also suggested. Nickerson further states that laboratory research showed that coercion is more acceptable when there is clear lack of co-operation and the gains from collaboration are high. Offsetting short-term benefits to long-term negative consequences can also modify behaviour. The behaviour's immediate cost can be increased, and the long-term consequences can be made obvious to encourage behaviour with positive long-term consequences.

Nickerson found that the specifics influencing the ease with which a resource is managed are:

- The resource's natural rate of renewal
- The reversibility of the resource's depletion
- The value of the resource to its users.

3.7 Axelrod's 'The Prisoner's Dilemma' and sustainability

As stressed by Dibble [3], co-operative players of the prisoner's dilemma can only expand in a world of cheaters (competitive players) if they get to play against other co-operative players most of the time. When equating co-operative players with those attempting sustainability, and competitive players with those benefiting from co-operation without contributing, the theory brings to mind the success of Eco-villages where the majority of players are perceived to be altruistic, and the community is small enough to identify competitive players. The other way of overcoming the problem of dispersement among competitive players is to be able to accurately identify other co-operative players through signature marks such as clothing, handshakes and customs (Dibble [3]). The importance of reputation also becomes significant, such as among traders on eBay.

Nickerson's [8] comments suggest that an important finding with the prisoner's dilemma situation, is that when it is played continuously with the same players, and one player is playing co-operatively or competitively, it evokes the same response with the other player. These "tit for tat" results are believed to be the origins of co-operative or competitive behaviour.

With the aforementioned theories in mind, it is easy to see that governments and especially the media have a big responsibility to advocate correct behaviour. It is suggested that media watchers be positioned to report on environmentally and behaviourally unsound media projections.

4 Conclusion

There are a number of policies in place to aid sustainable development. The technologies for sustainable use of resources and development exist, and should be used to aid developing countries to achieve sustainability. This is an opportunity for developed countries to prevent the absolute destruction of natural resources that was the result of their development. In spite of the disappointing rate of ratification of the Kyoto Protocol, developed countries do seem to place a big emphasis on environmental issues, as seen with the Environmental Protection



Agency (EPA), and the World Energy Council. The most promising factors coming out of environmental consciousness are the energy ratings policies for appliances and buildings that are created by local governments.

The Rio+5 document identified issues that can aid and hinder the implementation of environmental policies. The best way forward is to achieve sustainability through clear guidelines and policies, and through empowerment and accountability of all stakeholders. According to Hawken et al. [6], the World Bank's 1995 Wealth index found human capital to be three times greater than financial capital reflected on global balance sheets. Humans are the most important feature in sustainable development, and should be sufficiently empowered to create a turn-around in global results towards sustainable development with the aid of clear guidelines and accountability of all stakeholders.

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