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Is environmental sustainability a case of failure of policy implementation?

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Abstract

Aim: The study's research objectives included identifying the factors that have led to policy implementation failure, identifying the impact of policy implementation failure on sustainability, and identifying the measures that can be implemented to achieve sustainability.
Method: The research methodology involved a systematic quantitative review of the literature conducted using the techniques outlined by Pickering and Byrne.
Findings: Findings from the literature's methodical review affirms that the failure to achieve the planned outcomes of environmental policies is because of communication, political, and economic factors. Additionally, these findings prove that the failure of environmental policies continues to be a growing concern.
Implications/Novel Contribution: The research outcomes identify that the main factors that lead to the inability to achieve environmental sustainability include the conflict between the roles of environmental policies and the objectives focused on economic development, the failure of communicating objectives to the key stakeholders, and a lack of incentives to adopt environmental policies. Therefore, policy-makers need to learn from such mistakes and still have the ability to set the globe on a path of sustainable development.

Keywords: Environmental Governance, Sustainable Development; Environmental Outcomes, Environment, Environmental Policy

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INTRODUCTION

Policies for sustainability have developed and grown from the international to the local level of governance over the few past decades (Organizatio, 2016). The concept of linking economic, social, and environmental issues was introduced in the 1970 United Nations International Strategy for Development and the 1972 United Nations Conference on the Human Environment held in Stockholm (Aldy, Hrubovcak, & Vasavada, 1998). In 1980, the World Conservation Strategy coined the term âĂŸsustainable development. The World Commission explained the terms on Environment and Development (WCED), which provided what, has become the preferably used definition; that is, sustainable development refers to development, which meets the needs of today without compromising the capability of generations of the future to meet their individual needs (Dutta, Lawson, & Marcinko, 2013; Rerkklang, 2018). This has resulted in the rise of interrelated concepts including âĂŸWorth-Living Development which seeks to make sure that every generation gets to hand over to the one that follows a better place to live in. At the Rio Earth Summit of 1992, 195 governments through Agenda 21 accepted to pursue sustainable development as well as conventions on climate change and biodiversity (among the various arrangements) (Beeson, 2010). This global commitment was supported by an array of complementary domestic policies from the local to national government levels. Subsequent summits including Rio + 5 of 1997, Rio + 10 of 2002, and Rio + 20 of 2012 showed that progress were really disappointing (Asara, Otero, Demaria, & Corbera, 2015). Therefore, in 2015, there was a renewed commitment to 17 Sustainable Development Goals, which expounded the Millen nium Development Goals (MDGs) through improved environmental, social, and economic links (Raj, 1999; Rex, Yetunde, Grace, & Pearl, 2017).

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Assessment of policies happens against three criteria: efficiency, appropriateness, and effectiveness, and they have a higher likelihood of success if they gain social support (Enu & Ugwu, 2011). One way to measure the effectiveness of the policies of sustainability is to track changes in the environmental state since their implementation. Even though there have been several patchy improvements in chosen indicators for specific few locations, the overall decline in the quality of the environment has continued incessantly and no nation has achieved environmental sustainability (Escobar, 2015). There is an increase in greenhouse gases emissions and the effects of global warming keep rising while the costs of both mitigation policies and impacts face issues of equity (Fukuda, Murakami, Noda, & Oki, 2016). Additionally, air pollution keeps killing millions of humans around the globe and has recently worsened in areas of east and Southeast Asia. Environmental policy failures have been noticeable in particular industries including transport and energy especially in developing countries (García, Pollard, & Rodríguez, 2003). This failure in achieving environmental sustainability to some extent has prompted the evolution of discussions on the necessity for a new economic paradigm focusing on "degrowth" and social-ecological change (Gomez & Naredo, 2015; Hsieh & Li, 2018). This evidence demonstrates that implementing sustainability policies has led to the failure in arresting the overall decline in the quality of the environment (Cuyugan et al., 2017; United Nations Millennium Ecosystem Assessment, 2005). This paper intends to address the question of why through a systematic review of the literature. The research objectives of this study included:

i. Identifying the factors that have led to policy implementation failure.
ii. Identification of the impact of policy implementation failure on sustainability.
iii. Identification of the measures that can be implemented to achieve sustainability.

Moreover, the theoretical and practical significance of the paper is investigating through conducted literature the milestones achieved by nations through environmental sustainability. However, overall decline in the quality of the environment has continued incessantly and no nation has achieved environmental sustainability. Therefore, the literature aids us in identifying where we are going wrong especially in policy implementation. Consequently, new policies will have to be formulated to ensure that environmental sustainability is achieved. This study is novel in that it analyzes studies conducted to identify exactly how policies either lead to the success or failure of environmental sustainability. The next section discusses the literature review, methodology used, the findings, research outcomes, and future scope (Hilden, 2014).

LITERATURE REVIEW

Over 170 nations met at the Rio Earth Summit in 1992, and they came to an agreement to pursue sustainable development, prevent hazardous interference with climate systems, conserve forests and protect biological diversity. However, 25 years later, there continues to be degradation of the natural systems on which we rely. The literature review attempts to address why the world has failed to become much more environmentally sustainable despite decades of local plans, state laws, national policies, and international agreements. Therefore, 94 studies were reviewed to identify how sustainability policies have failed across each continent. The case studies include both developing and developed countries, and ranged in scope from local to international initiatives (Gomez & Naredo, 2015; Teng, Quoquab, Hussin, & Mohammad, 2016).

It is important to consider the following fundamental environmental indicators. Since 1970: the globe has lost over 48% of sub-tropical and tropical forests; the ecological footprint of humanity has exceeded the capacity of the Earth and has increased to the point where we would need 1.6 planets to sustainably provide resources; the biodiversity index has reduced by over 50% as the populations of other species keeps declining; greenhouse gas emissions which influence climate change have almost doubled while the effects of climate change have become increasingly apparent; and The rate at deterioration of these indicators occurred remained largely unchanged over the last twenty five years since the Rio summit. Additionally, humanity is quickly approaching various environmental tipping points. If these points are crossed, these could result in irreversible changes. If average global temperatures are allowed to increase 2°C above pre-industrial levels, for instance, feedback techniques will kick in that result in runaway climate change. Currently, we are already halfway this limit and there is a possibility that we pass it in the next two or three decades (Ahu Akgün, van Leeuwen, & Nijkamp, 2011).

Therefore, this is proof that there is something wrong with our sustainability initiatives. There are particular types of failure that keep recurring including political, communication, and economic. The economic failures come

from the basic issue that environmentally damaging activities are rewarded financially. Normally, a forest is worth more once it is cut down, which is a particular concern for nations that are shifting to a market-based economy. On the other hand, political failures occur when governments will not or cannot implement effective policies. Often, this is because large excavative industries including mining, are dominant players in a country's economy and they view themselves as having more to lose (Escobar, 2015). Mostly, this happens in developing and developed countries, but the former can face more difficulties enforcing policies once they have been put in place. Finally, communication failures center on poor community involvement or consultation in the policy process. Consequently, opposition flourishes, sometimes on the basis of misunderstanding how severe the issue is. Also, it can be fed by mistrust when there is a view by communities that their concerns are being overlooked. However, this occurs around the world (Asara et al., 2015).

For instance, there was community resistance in the rural areas of Australia when the government suggested to change the water allocation systems. Farmers in this situation were so opposed to the government purchasing back several water permits from them, that they burnt copies of the policy in the street. Such kinds of failure are mutually reinforcing. Moreover, poorly communicating the advantages of sustainable development creates the perception that it always costs money and jobs. Consequently, communities and businesses pressure politicians to water down or avoid legislation that is environmentally friendly. Ultimately, this is a representation of failing to convince people that win-win scenarios can result from sustainable development. As a result, decision-makers either experience difficulty in the coming up with policies or during implementation (Parto, 2003).

METHODOLOGY

Sampling Technique

A systematic quantitative review of the literature was conducted using the techniques outlined by Pickering and Byrne.

Sample

Papers dated to 2017 that used the terms "policy failure" and "environmental sustainability" were searched for in the Scopus database and it resulted into 8339 hits (Hou & Xu, 2012). To limit the available results to papers that would be more relevant, the search was further confined to terms found in the title of the article, abstract, or keywords in the humanities and social sciences subject area (Jabbour et al., 2012). This reduced the search results to 125 hits. Papers that met the three inclusion criteria from this list were chosen. First, the chosen publications had to focus on whether there was the achievement of environmental sustainability (Janković Šoja, Anokić, Bucalo Jelić, & Maletić, 2016). This included research looking at the success of efforts to attain general environmental sustainability and studies looking at a particular initiative, plan, or policy (Kanakoudis & Papadopoulou, 2014). These policies involved any area considered by the authors as essential for environmental sustainability, including conservation, water, and agriculture, as well as the environmental effects of different initiatives including transport, housing, and tourism (Kanakoudis, 2015). Second, chosen publications had to analyze some type of failure. This comprised failure to achieve outcomes that were environmentally sustainable with present and past initiatives, as well as anticipated failings of eventual initiatives (Kanakoudis, Tsitsifli, & Papadopoulou, 2012). Additionally, it included papers that were creating tools intended to beat failings or implemented predictive models for identification of scenarios in which sustainability of the environment would or would not be met (Kanakoudis & Karatzas, 2017). A policy was deemed to have failed if it did not meet its environmental objectives. Finally, chosen publications had to discover the cause or causes of the policy failing (Rogers & Wilkinson, 2000).

Sampling Size

These criteria identified a complete list of 94 articles (Seyfang, 2005). The articles' content was then scrutinized against specific categories including bibliographic information; methods of data collection including the location and inclusion of a case study; techniques for sustainability assessment; the environmental issue which the paper focused on and the proposed solution; detailed information of the initiative/policy/plan; and, the reason behind policy failure (Soloviy & Cubbage, 2007). Categorization of the causes of policy failure was done according to the synthesized implementation traps (Tisdell, 1999). The list was then expounded with new categories that rose

from analyzing the content of the articles. The frequency of publications discussing the failure of environmental policies has heightened, with a notable rise in publications just before and following the 2012 Rio + 20 summit (Lynagh & Urich, 2002). Short-lived surges of publications also seem to be connected to the 1997 Rio + 5 and the 2002 Rio + 10 summits as well as the launch of the publication of Intergovernmental Panel on Assessment of Climate Change Reports, especially those published in 2007 and 2013-2014 (Pastakia, 2002). These findings prove that this review is a convenient addition to the academic literature as the failure of environmental policies continues to be a growing concern (Pelletier, 2010).

RESULTS AND DISCUSSION

Almost every publication included in their research methodology and relevant studies, mostly supplemented by interviewing key stakeholders (20% of reviewed papers) or surveys (11%) (Pickering & Byrne, 2014). Several publications imitated official data, including census statistics (10%), and a few utilized workshops/focus groups or comparable methods (4%). 69% of the papers made use of a case study to investigate the reason(s) why environmental sustainability had not been met (Quesenberry, 2000). The remaining 30% looked at the failure of environmental sustainability in more global or general terms (Zalasiewicz, Williams, Steffen, & Crutzen, 2010). These case studies covered a variety of locations such as developing and developed nations as well as bigger multi-country studies (Intergovernmental Panel on Climate Change, 2014). 48% of the papers reviewed a particular government plan, strategy, or policy (McGuire & Perivier, 2011). The rest of the papers investigated environmental sustainability failures more generally (Edenhofer, 2015). All papers connected their findings to others through identifying a point at which applying an individual policy had failed to achieve environmental objectives; factors that caused policies do not lead to environmental sustainability; or the hindrances to future policies to be implemented successfully (Stocker, 2014). The papers used for this review identified several causes of failure and categorized them as implementation, traps, structural causes and knowledge/scope issues. These were the main causes of failure to achieve sustainability.

Discussion

The 94 different studies on the failure to boost environmental sustainability from many distinct regions of the world including both developing and developed countries identified that there were particular factors similar to this study which led to failure to achieve sustainability. What is clear from this review after studying the rest of the papers is the inability to augment environmental sustainability as a result of a complex number of causes. Moreover, the link between previous studies and this study is that an important element is the failure of policy implementation from the national to the international, local and regional locals of government (Paker, Adaman, Kadirbeyoğlu, & Özkaynak, 2013). The reasons that lead to this failure involve a complex set of interlinked structural causes, knowledge/scoping issues, and implementation traps (Parto, 2003). While the particular reasons for personal policy failures are many and varied, there was a recurrence of three key factors. First, there are continuing economic incentives backed by policy for public and private activities to keep exploiting natural resources lacking deeper consideration of the correlated damage to the environment (Environment Programme , 2012). Second, governments either lack the political will and/or the capacity to implement effective sustainability policies (United Nations, 2015). Third, the urgent necessity for change and the seriousness of issues of stability has not been effectively made known to key stakeholders (Aldy et al., 1998). There are notable differences between developing and developed nations concerning the relative impact of several types of causal factors, which lead to failures of policy implementation (Organizatio, 2016). Therefore, policy-makers learn from such mistakes, and may still have the ability to set the globe on a path of sustainable development. While the past cannot be altered, the future is still up for negotiation (Kamieniecki & Kraft, 2013).

CONCLUSION, RECOMMENDATIONS AND IMPLICATIONS

In conclusion, the past policy implementation failures explained in the studies which have been reviewed do not show that it is impossible to achieve environmental sustainability. Simply, they catalogue what has gone wrong with trials to bring about the required change so far. This paper looked at a macro-level analysis of the literature on the failings of sustainability policies but it is essential that a significant deal of further research be done (Patton &

Sarwicki, 1993). First, it is important to acknowledge that additional data is essential in order to generate a better analysis of both the effectiveness of policies and the state of the environment (World Wide Fund for Nature, 2014). Moreover, analyzing individual situations could discover context-specific reasons for failure and investigate the complexities in the development and implementation of sustainability policies. In addition, a micro-level analysis of particular issues across various situations would further improve the analysis (Althaus, Bridgman, & Davis, 2007). Finally, tools including highly sophisticated biodiversity assessments, life-cycle analysis, and pollution inventories would be extremely useful (Environment Programme , 2012; World Wide Fund for Nature, 2014). Combined, these various strands of research should aid in connected effects that are measurable to the wider principles of sustainability. Therefore, policy-makers can still set the globe on a path of sustainable development if they learn from such mistakes. While it is impossible to change the past, the future remains open for negotiation (Howes et al., 2013).

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