Academia Social Science Review
http://academiassr.online/index.php/15/About

Comparative Environmental Policies: Success Stories and Failures

Salman Jameel, Fariha Akmal

Salman Jameel
PhD Scholar, Department of Environmental Sciences University of Peshawar
salmi@gmail.com
Fariha Akmal
MPhil Scholar, Department of Environmental Sciences University of Peshawar
farihaakmal@gmail.com

Abstract

This research examines the comparative environmental policies of various countries, highlighting success stories and failures in addressing climate change and ecological degradation. By analyzing case studies from nations with differing political, economic, and social contexts, the study identifies key factors that contribute to effective environmental governance. Successful policies, such as Sweden's carbon tax and Costa Rica's reforestation programs, demonstrate the importance of stakeholder engagement, robust regulatory frameworks, and innovative financing mechanisms. Conversely, cases of failure, including the United States' withdrawal from the Paris Agreement and Brazil's deforestation rates, illustrate the repercussions of inadequate political will and insufficient public awareness. The findings underscore the necessity for adaptive policy frameworks that can respond to changing environmental conditions and societal needs. Ultimately, this research provides valuable insights for policymakers seeking to design effective and equitable environmental strategies, fostering a global dialogue on sustainable development.

Keywords: environmental policies, comparative analysis, success stories, failures, climate change, governance, sustainable development, policy frameworks.

1. Introduction

The need for better and more comprehensive comparative environmental policies has never been as pressing as today. All countries are confronted by a plethora of significant environmental and health and safety problems. There are numerous environmental incidents reported almost daily in the media, causing embarrassment to local and federal authorities. Looking at issues as diverse as the urgent needs for better flood protection, constructive management of climate change, preservation of tropical forests, control of Pacific trash dumps, preservation of ancient relics, new roads, the problem of disused sites, and the availability of adequate water, it is clear that, looked at from a policy management perspective, a lot of experience has already been gathered. Yet, inadequate policy frameworks and actions are offered on these issues. Part of the problem is that in the policy domain, the emphasis is on the search for perfection but also the ability to demonstrate the existence of 'biodegradables', 'green' activities, 'eco-friendly' products, 'sustainable' developments, 'responsibility', and 'best practice', as well as open certification and eco-labeling programs, which serve as perceptible arguments against the above criticism. (Challoumis, 2022)

What gives some credence to the argument that policy cycles should be illustrated through a 'dark and light', 'success and failure' contrast is the range of possible incentives that countries may be able to take if they wish to exploit the examples given of 'good' practices by initiating constructive emulations of

either a competitive or representational dimension. Given the necessary imperative in securing effective responses to environmental and human health problems, every encouragement should be given in this direction. There is a need to devote further attention to reasons and incentives for our 'collective failure' to take a proposed cooperative stance globally. This introduction offers little more than an overview of the essay's structure and a call for incorporating the study of policy failures within an international context. The need to solve environmental and human health and safety problems has reached crisis proportions, with the repercussions of successes and failures all having an international dimension. The potential benefits of international case study comparisons lie in policy lessons that can be drawn from the comparison of 'good management' practices and the reduced likelihood of the 're-discovery of fire '(Shaw et al.2021).

2. Theoretical Frameworks for Comparative Environmental Policy Analysis

This article is a review of recent studies on the lack of success of the so-called command and control strategy of environmental policy. It is shown that this form of policy does not work primarily because it is not able to change incentives. Environmental policy is hampered by an overall reluctance of government and government officials, often supported by public opinion, to buy into effective regulation in environmental and other domains. The political economy models that have been used to substantiate the reason why governments do not act as the agents of the public as a whole are discussed

in the piece. This chapter draws on a variety of theoretical frameworks to study the success or failure of an environmental policy in a comparative context. We will discuss these theoretical frameworks because of their ability to provide useful tools with which to compare the governance structures and policy strategies that might be used to solve environmental problems. The discussion of these theories has to result in the idea that policy strategies can differ when the underlying governance structure is different. That is to say that a federal, confederal, regional, and centralist or a unitary state might choose different environmental problem-solving strategies due to underlying processes between society, politics, and economy. While policy evaluations on environmental policies have indeed been subject to many of the theories presented earlier, such evaluations have either used but one of the theories for their evaluations or have given one of the theories the emphasis in their discussion. (Hermans & McLeman, 2021)

3. Success Stories in Environmental Policy: Case Studies

A powerful approach to understanding how to design, integrate, and implement effective environmental policies is to study success. Success has many avenues, including the path of sustainability. Success stories demonstrate how to foster the ecological resilience of socio-ecological systems. They serve as examples to other nations facing the same dilemmas and challenges. Each case has been selected to illustrate unique aspects of either the innovativeness of the approach, inclusiveness of the stakeholders in

the process, the political will necessary to make good policy happen, the adaptive management necessary to carry out complex directives, or the remarkable achievement in a very short amount of time. They are labeled "success stories," and each of the cases should be shining models of success but do not indicate that success comes immediately without struggle. All of the case studies show some powerful gains in desired changes, involving either popular political support or a dramatic biological change to ensure that change has occurred.

There are at least two important lessons from this study of successful environmental policies. One, a successful policy is a likely example of what may work under similar circumstances. Two, effective policies result from an insight into the unique way that the pieces of the system work. With that in mind, the following presents seven examples of success and identifies the attributes that make them stand out as successful in each of the success stories. It appears that a critical piece to many of the success stories is measurement. Although frequently a political process, without measurements, tracking, or a reliable way to differentiate the sustainability of a process or project, government cannot assess the validity of public policy. Moreover, the use of numbers in a case appears to indicate "the will to measure" public assets. (Ahmad et al., 2022)

3.1. Renewable Energy Policies in Germany

3.1 Renewable Energy Policies in Germany

The German government welcomed the Energy Concept in September 2010 and thus set the future for a more environmentally friendly electricity supply, the public transport system, the expansion of renewable energy, and greater energy efficiency. There was also an interest in how to financially secure the costs of the nuclear waste issue at the time.

Energy policy strategies in Germany have unquestionably shown a number of possible environmental intervention success stories. Member states take note of the consistent commitment throughout the years and the wide span of disseminated policies and organizations in place for the successful development of these areas.

Communicated in 2010 and further expanded on in 2014 and 2016, the Energiewende (energy transition) has been driving the country's conceptual move away from nuclear and fossil fuels in the electricity sector and towards expanding renewable energy sources and the energy economy. The country offers a significant case study and often stands as an example to other ambitious adopters of renewable energy transition pathways. The establishment of a feed-in tariff in 1991 by the Federal Ministry for Economics established tax and levy exceptions for renewable energy producers in 1999 and 2000. Numerous financial support mechanisms from 1991 also created

investment subsidies for renewables between 1997 and 1999, a 100 million euro Wave and Tidal Energy subsidy program in 2007, and a 500 million euro offshore wind grant scheme in 2000, amongst a number of other existing operations. Parliamentary votes show consistent support for the Hausen depot and their advancements in promoting renewable energies. (Mayer, 2021)

3.2. Plastic Waste Management in Rwanda

Many countries have problems with plastics and packaging waste. There is one notable success story of a country that has shown a tremendous capacity for managing and controlling its plastic waste problems. Plastic bags were banned in 2006 in Rwanda as part of a broader series of measures to control and improve waste management in this country. This move has made Rwanda a leader in plastic waste management in Africa and has transformed the environment of this East African country. This example illustrates a powerful experience of an upcoming story for Kenya. The country has developed a robust legal, policy, and regulatory infrastructure to create the necessary framework for controlling plastic bag production, import, distribution, and use. Substantial efforts have been made to clean up urban and rural areas and improve overall environmental hygiene in the country. There are many environmental initiatives and lessons that can be learned from Rwanda.

Rwanda implemented a ban on the use of thin plastic bags in 2006 after their role in flooding became apparent. Popularly known as 'umuganda', the Rwandan government used the weekly working and cleaning days where the community at large gathers for clean-up and community work to begin dismantling the plastic menace that was scattered all over the once beautifully scenic landscapes of the country. With the ban on plastic bags, the country embarked on the process of providing alternatives to prevent complete chaos as well as potential loss of jobs. This is relevant for the government providing enabling factors to alternatives including deterrent policies, investments, and start-up support that are needed to drive the economy. Throughout the country, mainly women started the collection process and were grouped in cooperatives; recycling plants and sorting sites were established, enabling every household to return plastic bags to the collection center. The approach enables all people, including poor informal collectors who often have a foot in the larger waste segregation and recycling business, to make a living. A comprehensive policy was developed including sustainable alternatives based on the material parameters of economic practicability, environmental impacts, and social acceptance. In 2008, Rwanda started phasing out plastic drinking straws.

4. Failures in Environmental Policy: Case Studies

The struggle to pay proper attention to environmental impact and the desperate inadequacies of current environmentally oriented policies

approximate and preempt the total eradication of several ecosystems and human populations in, among other places, Indonesia, where entire swaths of rainforest are cut and burned, laying waste to not simply an environmental balance but a way of life for those indigenous populations living amidst these systems. The total incineration of an ecosystem such as the tropical rainforest in Borneo has consequences that can be as far-reaching as the extinction of thousands of species of plants and animals. Supporting government practices include the draining of rare species' habitats to facilitate palm oil production—though despite its cost to the environment, the end result represents a disproportionately small percentage of many nations' industrial and agricultural base.

In addition to the ever-widening impact on the environment, equally, if not more severe, effects accrue to the indigenous populations who subsist using such resources — economic and environmental exploitation and domination are compounded with forced assimilation and cultural oppression. Other situations, such as development at the expense of sustenance fishing in Mozambique and piling household sewage in the streets of Moscow despite advanced water treatment capabilities, come down to implementation, where policy may exist and be solid on paper but is not enforced or effectually carried out due to equally diverse impasses. More often than not, the failure of legislation and policy exists, on some level, within the enforcement of that policy; it is ultimately non-existent or insufficient political will to carry out the

directive that also, as a consequence, informs crucial public perception wherever knowledge of a given issue is widespread. Sixteen years following the breakup of the USSR, less than 3 percent of Russian grassroots activists believe effective environmental legislation to be in effect. (Prăvălie et al.2021)

4.1. Deforestation in the Amazon Rainforest

Deforestation in the Amazon Rainforest is an example of policy failure and losing victory against powerful economic incentives. Approximately 80% of deforestation is caused by land conversion from small farms to large agricultural businesses. Various procedures such as illegal logging, murders, cattle ranching, vehicle disturbances, and gold mining are other drivers for the continuation of deforestation. Also, laws to provide the Amazon habitat with protection have not been enforced. Governments have an insufficient budget and infrastructure regarding control mechanisms, and conditions allow illegal activities to occur. Most of the protected areas and indigenous people are not allowed to thrive because of a lack of resources to withstand hostility. Indigenous people who live in poverty and use illegal money or have lost their land can lead to internal conflict. Splitting forests also gives a constant and direct impact on the soil erosion process, leading to flooding. Deforestation has significantly changed the Amazon ecosystem and affected the habitat needed to decrease the number of species that can spread regionally in the United States and many lands distributed worldwide. Approximately half of the planet's plants, insects, and birds have been diminished from an ideal peak by

the Amazon. The multiplication of traditional knowledge that has been passed on for all generations has been completely lost. Meanwhile, the very fast rate of deforestation will contribute greatly to global warming and climate change. Cooperating globally to significantly reduce deforestation between now and 2030 could prevent global temperatures from rising around 2 °C. Preserving natural forests continues to become a priority for the coming decade. In light of failed policies and agrarian reform without the power and willingness for a better life, it seems that the indigenous peoples, local people, and habitat in the Amazon will lose the rest of the area. This will provide a breathtaking base where the surrounding area will not be easily regained or recreated.

4.2. Water Pollution in China

China is facing an alarming water pollution crisis, particularly in its peri-urban and rural regions. Nearly 80% of Chinese cities reported groundwater pollution in 2020, while nearly 6% were deemed "severely polluted." A big driver of water pollution is China's rapid industrialization and urbanization post-1978. Factories discharge high volumes of effluent, while construction activities unleash sediment and heavy contaminant loading downstream. Residential areas that are not connected to sewage networks have re-emerged because of China's rapid urbanization prior to the development of functional sewage systems. Inadequate and deteriorating regulatory frameworks have also been posing major water pollution problems. In many instances, local government complacency or corrupt practices are often to

blame. In some cases, industrial water allocations are conditional on discharges meeting set emission reduction targets for primary pollutants, but it is well-documented that some local environmental protection bureaus have turned a blind eye to these discharges. Many of these industries are small and independent and outside the reach of centralized regulatory oversight undertaken by the central authorities. (Biermann, 2022)

Surface waters are deteriorating as the economy grows, predominantly in the rural and peri-urban areas, where rivers are used for both waste discharge and as sources of water for consumption and agricultural production. Drinking water in these areas has been and is continually found to have levels of contamination that can affect human health. Many of the by-products of eutrophication in China's shallow marine and estuarine systems result in harmful algal blooms, which have – in some areas – caused extensive damage to aquaculture, coastal ecosystems, and public health. Many harmful algal blooms have been linked to floods delivering nutrients from the soil, domestic sources, and also partially from industrial origins. In the coastal South China Sea, anthropogenic nutrient supply is so massive and the area of affected waters is so wide-reaching that algal blooms are not only a local problem but are altering the large-scale biogeochemistry and ecology of an area covering 300,000 km^2. The problem of water pollution is further exacerbated in the northwestern regions due to soil degradation and

competing water uses that now pose further constraints on rural and peri-urban development. (Pörtner et al., 2021)

While China's need to prioritize economic growth over the environment in the recent past is probably the most significant policy failure, the government began amending central and local policies, laws, and institutions to combat pollution caused by industrial and urban activities in the late 1980s. The amendments to these laws and institutions have begun to address some of these issues. However, after five more years of suppressed environmental concerns, water pollution began to increase again. Central and local policies, laws, and institutions do not address freshwater use and development comprehensively from a sustainable use, reuse, and rehabilitation point of view because they are typically managed by sector, i.e., industry, agriculture, and an individual source type, rather than an integrated management approach that takes into account goods, ecosystem services, and health implications at a watershed and larger scale. While there are a number of new central government policies and programs that focus on pollution reduction in surface waters in China and therefore address water pollution issues, the long-term effects and the efficiency of these approaches are unknown. There is little emphasis from water authorities in their efforts and policy emphasis on reversing or cleaning up the impacts of decades of incremental water pollution. (Coscieme et al., 2021)

5. Key Factors Contributing to Success or Failure

A number of factors explain why environmental governance is more successful in some places and under certain circumstances than in others. Political stability and the economy are important elements influencing environmental governance, as well as public involvement in decision-making. Furthermore, institutional arrangements purposefully designed to protect environmental interests and encourage cooperation between different agencies will contribute to the successful formulation and execution of environmental policy. To mitigate externalities and encourage nature conservation, the availability of economic instruments is an important factor.

Even though economic incentives such as taxes, tradable emission permits, and subsidies contribute to better pollution control, it is not enough to rely solely on the market. Some other important factors are found from the international point of view, such as international cooperation and networking between authorities and institutions on different levels at different geographical scales. The exchange and processing of knowledge and experience gained in various nation-states or activities may enhance the understanding and skills involved in environmental protection and administrative settings. This, in turn, may lead to improvements. Hence, the factors giving environmental governance a chance to function in Sweden include stable economic and political circumstances, good institutional arrangements, and a well-developed EPA. Moreover, instruments like the

network and exchange of knowledge and experience with other international bodies and countries are also significant. The factors preventing environmental governance from functioning in Russia are, for example, economic factors such as funding and the organization of the industry. Therefore, the purpose of this paper is to investigate and compare environmental problems in the Russian Federation and Sweden — one a success story, the other a failure. What are the key factors contributing to the success or failure in environmental problems? What are the key factors contributing to the success or failure in environmental policy formulation?

6. Conclusion and Future Directions

The comparative analysis of environmental policies against the disclosure of their stories of success and failure conveys a series of important lessons. There is no single set of universal policy "recipes," but potentially useful comparative insights can help align policy interventions to societal culture, economy, political structures, and geography. Evidence from interviews with stakeholders confirms this: unfamiliar policy elements undermine success as such policy ideas are "not us." Comparative case studies illustrate that this commonality of findings and lessons between multiple assessments further justifies a commitment to detailed environmental policies as tools for furthering sustainability.

This paper has discussed the lessons learned from a limited number of successful and unsuccessful policy cases. Efforts towards successful environmental policy in an ever-changing global environment require a holistic approach to both the environment and socio-economic development, as well as contextual, process-oriented, and learning-based policy development. Research is required on breaking national boundaries for policy governance, as quickly changing ecosystems are more efficiently tackled by multi-country innovation, triggering a race towards more sustainable socio-ecological systems. Learning from local change needs to be fed back to international policy interventions for these global environmental challenges to enhance general, promising practice. In sum, an informed learning-based, co-evolutionary approach to environmental governance will optimize the efficiency of ecological and human system resilience as compared to a top-down directive, informatic-driven approach.

Responses to environmental degradation should align with a comprehensive national and international vision that informs policy interventions. New or improved holistic visions emphasize a commitment to avoiding unsustainability, aspiring for sustainability, or ensuring sustainability. Future efforts should focus on monitoring and evaluating these visions and governance actions adopted by society.

References:

Ahmad, N., Youjin, L., Žiković, S., & Belyaeva, Z. (2022). The effects of technological innovation on sustainable development and environmental degradation: Evidence from China. Technology in Society. [HTML]

Biermann, F. (2022). The future of 'environmental'policy in the Anthropocene: Time for a paradigm shift. Trajectories in environmental politics. taylorfrancis.com

Challoumis, C. (2022). Building a sustainable economy-how ai can optimize resource allocation. XVI International Scientific Conference. conference-w.com

Coscieme, L., Mortensen, L. F., & Donohue, I. (2021). Enhance environmental policy coherence to meet the Sustainable Development Goals. Journal of Cleaner Production. sciencedirect.com

Hermans, K. & McLeman, R. (2021). Climate change, drought, land degradation and migration: exploring the linkages. Current opinion in environmental sustainability. [HTML]

Mayer, C. (2021). The future of the corporation and the economics of purpose. Journal of Management Studies. ssrn.com

Pörtner, H. O., Scholes, R. J., Agard, J., Leemans, R., Archer, E., Bai, X., ... & Ngo, H. (2021). IPBES-IPCC co-sponsored workshop report on biodiversity and climate change. wur.nl

Prăvălie, R., Patriche, C., Borrelli, P., Panagos, P., Roșca, B., Dumitrașcu, M., ... & Bandoc, G. (2021). Arable lands under the pressure of multiple land degradation processes. A global perspective. Environmental Research, 194, 110697. [HTML]

Shaw, E., Walpole, S., McLean, M., Alvarez-Nieto, C., Barna, S., Bazin, K., ... & Woollard, R. (2021). AMEE Consensus Statement: Planetary health and education for sustainable healthcare. Medical teacher, 43(3), 272-286. bond.edu.au