

# 台灣永續發展 DSR 架構研究

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## 摘要

基於聯合國永續發展架構為基礎，本研究試圖建構出台灣永續發展 DSR 系統架構，且首開進行 DSR 量化系統檢定，以說明台灣的歷史資料符合永續發展 DSR 架構關係，結果顯示，未來台灣進行永續發展規劃時，可以納入該系統架構，而成為具有邏輯因果及回饋關係的架構體系。本研究利用所建制的永續發展多目標規劃系統，選定永續發展的四個構面變數（平均餘命、人均綠色所得、水資源品質（BOD）及空氣品質（PSI）），進行決策變數與目標變數間之迴歸配適度檢定，而所得結果，可做為國家追求永續發展施政之參考。

**關鍵詞：**永續發展，DSR 架構，迴歸適合度檢定

## I. INTRODUCTION

Over the past few decades, the striking levels of economic growth achieved in Taiwan has been accompanied by environmental degradation that exceeds the maximum loading of environmental self-purification and the carrying capacity of supporting ecosystems in this island. Obviously, efforts should be made as early as possible to assist Taiwan to plan the strategies towards sustainable development. The classic definition of sustainable development, "meeting the needs of present without compromising the ability of future generations to meet their needs", was produced with the Brundtland report by the United Nation's World Commission on Environment and Development (1987) entitled "Our Common Future". This broad concept gained prominence at the 1992 United Nations Conference on Environment and Development (1992) in Rio De Janeiro, Brazil, now known as the Earth Summit. The concept of sustainable development in the dynamic operation concerns for the ecosystem's health, social justice, and ideals of responsibility to future generations. Such a broad conception is likely to give rise to various different interpretations, since people all have different goals and sensitives.

Danaher (1998) illustrates that the concept of sustainable development remains a multi-dimensional term and is

increasingly becoming more important as a policy objective and as a policy tool. Krotscheck and Narodslawsky's (1998) social economic environmental research does not exclusively deal with ecological aspects of human activities, but includes social and economic factors on the same level. Spangenberg (2002) states that objectives of sustainable development are defined for the economic, social, and environment dimension, but for sustainability characteristic they must be complemented by core institutional objectives. Giddings, Hopwood, and O'Brien (2002) summarize Haughton's five equity principles as principles of sustainable development, that is, futurity-inter-generational equity; social justice-intra-generational equity; transfrontier responsibility-geographical equity; procedural equity-people treated openly and fairly; inter-species equity-importance of biodiversity.

The Organization for Economic Cooperation and Development (1991) has developed the application and research of the Pressure-State-Response (PSR) framework for environmental indicator and has also adapted the indicator strategies for sustainable development. The PSR framework indicates that the pressure from the human influences and activities, when combined with environmental conditions, causes environmental state change. As the environmental