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# Complexity in Small Island Developing States

This is a summary of a paper prepared by Max Everest-Phillips, Director, UNDP Global Centre for Public Service Excellence, for the conference on 'Development on Small Islands – What does a complexity approach have to offer?' in Singapore, 29 April 2014.

## WHAT IS THE ISSUE?

The UNDP Global Centre for Public Service Excellence (GCPSE), in partnership with the Lee Kuan Yew School of Public Policy, is holding a conference in Singapore on 29 April 2014 to consider the value of 'complexity-aware' approaches to improving public service in Small Island Developing States (SIDS). The event is in preparation for the United Nations' Third International Conference on Small Island Developing States in Samoa in September 2014.

Some 52 countries and 'associate states'<sup>1</sup> declare themselves to be Small Island Developing States, including 38 UN Member States listed on the website of the Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States. But there is no accepted definition—three SIDS are not even islands. SIDS are mainly located in two regions, with 23 in the Caribbean and 20 in the Pacific, and nine in the rest of the world (scattered across Africa, the Indian Ocean, Mediterranean and South China Sea).

Complexity science is the study of complex adaptive systems—the patterns of relationships within them, how they are sustained, how they self-organise and how outcomes emerge. The ancient Chinese philosopher, Lao Tzu, might be regarded as having founded complexity theory over 2,500 years ago when he observed that "everything is connected, and every matter relates to every other." The core insight of 'complexity' is that all systems of governance defy precise prediction because people, human society and the institutional components of its structures interact in nonlinear ways. Public service works in a non-linear environment because the overall 'system' cannot be understood simply by understanding individual components.

## WHY DOES IT MATTER IN INTERNATIONAL DEVELOPMENT?

SIDS have long been seen as sharing characteristics that pose specific development challenges. In addition to small size and insularity, shared characteristic may also include: a) geography—often remoteness, an archipelago, mountainous, being landlocked and tropical; b) society—ethno-linguistic complexity; small, but growing populations with high inequalities, a deep divide between urban elites and rural poor, high youth unemployment and deep pockets of poverty; c) politics—high public service and institutional costs; and d) a wide range of economic challenges. These shared economic characteristics may include the following: limited capacities in the public and private sectors; high volatility in national incomes, high costs of tertiary education and limited opportunities for high-skilled employment, and high volatility of GDP; 'natural monopolies' leading to market distortions; remoteness from large markets, vulnerability to natural disasters and other external shocks; significant dependence on foreign aid and/or international trade; fragile environments and climate change; inability to find economies of scale; lack of market competition; higher cost of living; excessive dependence upon a few dominant activities, exports and export markets; and small domestic

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<sup>1</sup> American Samoa, Anguilla, Aruba, Bermuda, British Virgin Islands, Cayman Islands, Commonwealth of the Northern Mariana Islands, Curaçao, French Polynesia, Guadeloupe, Guam, Martinique, Montserrat, New Caledonia, Puerto Rico, Turks and Caicos Islands, and the United States Virgin Islands.

markets. Small domestic markets deter investors, as costs of doing business are higher including from expensive infrastructure development and high communication, energy and transportation costs. Small domestic markets limit any import-substituting industrialisation.

Complexity has become fashionable in international development. Complexity science, not just respect for complexity, can offer insights on institutions. But is the art of governing small countries less complex, the same or simply different from that of larger nations? Does the 'islandness' of small island states, as well as their 'developing' status, affect public service? And, if there are particular administrative challenges in these small jurisdictions, can insights from complexity theory assist UNDP to help its partner governments more effectively?

A variety of possible factors are involved in applying ideas from complexity theory to reforming public service and tackling related development problems in small countries, and especially SIDS. It explores whether such core attributes as the degree of smallness and/or the nature of 'islandness' create specific characteristics of the state that may simplify coordination across government, or make the problems that a public service faces no different, or different but no less complex than in other contexts. Better planning and foresight capabilities, rooted in effective political economy analysis, may be needed.



*Aerial View of Marovo Lagoon (Solomon Islands)*

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The evidence shows the nonlinear nature of development; there are no simple answers, even in the SIDS context. But public service in SIDS can translate complexity approaches into practical steps. These activities can improve their capabilities to respond to complex interdependencies that are inexplicable, emergent and difficult to predict. The evidence also shows that combining foresight and 'complexity theory' from adaptive systems science can promote anticipatory and agile planning. This matters. For instance, Singapore's extraordinary success over the last 50 years was in no small part achieved by developing the capacity to undertake long-term planning.

## WHAT CAN WE DO ABOUT IT?

This conference is a landmark in three ways. First, it considers the relevance of complexity theory explicitly to SIDS; second, it seeks to investigate whether and how insights from complexity theory may have particular relevance for improving public service in SIDS; and third, by looking at the context of SIDS, it is able to investigate the wider applicability of 'complexity' thinking (such as on dynamics, co-evolution or self-organisation) to development challenges, not least those relating to UNDP's principle of open, democratic governance in different political economy contexts. 'Complexity' also helps to confront a fundamental problem underlying all development efforts: that the evidence consistently indicates the messy, poorly understood complexity of the development process. This partly arises from the fact that 'institutions matter', and that behind institutions lie the complexity of politics. Too often, governments, bilateral donors and multilateral institutions insist on continuing to pretend, in designing their programmes and projects, that the development process follows the logical sequencing of applying a technical fix (often implicitly dictated by the clear-cut progression of modernisation theory) and is conceptually well defined. Yet research suggests the real problem is not the 'what' but the 'how'.

Moreover, policymakers are dealing with increasingly complex, multi-dimensional issues that are frequently interconnected and interdependent. Globalisation resulting from and combined with technological innovation has accelerated change on all fronts—political, economic and social. In today's global environment, events and trends in various spheres interact with one another in complex and sometimes mystifying ways. The growing complexity means avoiding those 'toolkits' and 'frameworks' that insist on squeezing the wide variety of governance institutions into fixed problem diagnostics that come up with the same formulaic solutions.

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