



Eco-shift

Holistic transformation towards
environmental sustainability

ZAINI UJANG



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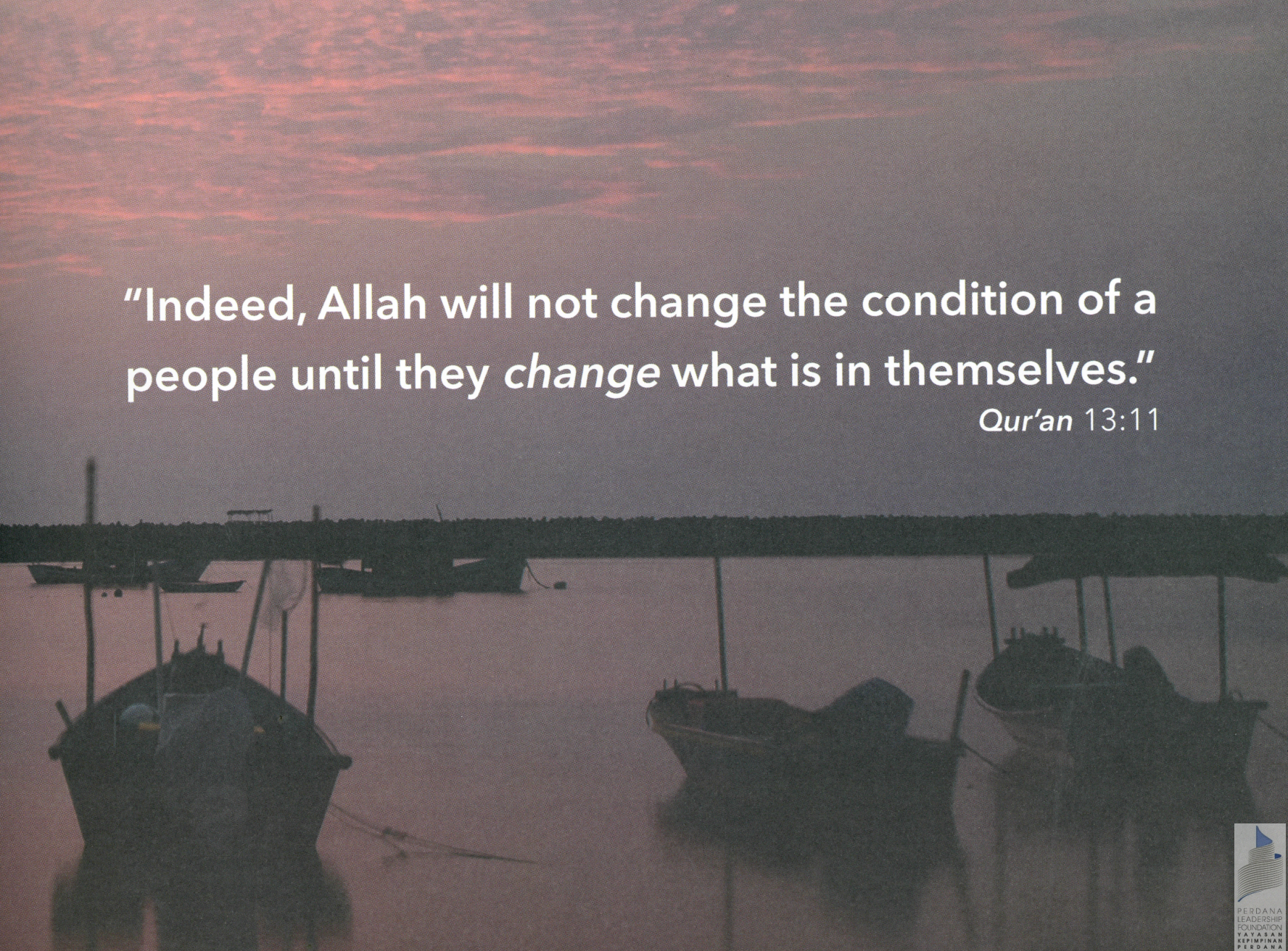
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TABLE OF CONTENTS

Important Concepts in Eco-shift	ix
Preface	xi
1 Change and Eco-shift	1
2 Why Does Eco-shift Matter?	19
3 How to Implement Eco-shift?	47
4 Public Participation	95
5 Eco-shift for Individuals	111
6 Eco-shift for Corporations	129
7 Eco-shift for Governments	155
8 Postscript	189
References	195
Index	203
Photo Credits	209
Biodata	213





“Indeed, Allah will not change the condition of a people until they *change* what is in themselves.”

Qur'an 13:11



IMPORTANT CONCEPTS IN ECO-SHIFT

An **ecosystem** is a community that includes all living things (plants, animals and organisms) in our physical surroundings, interacting with each other, and with their non-living environments (weather, soil, climate and atmosphere).

Ecology is a sub-discipline of biology that deals with the relations of organisms to one another and to their physical surroundings.

The word "**eco**" originated from a Greek word *oikos*, which means house. In a modern context, "eco" is a prefix to indicate connection to the environment, ecosystem and the means of going "green".

"**Green**" usually symbolises a pristine environment, as well as environmental movement and thinking. Both "eco" and "green" can be used interchangeably reflecting sound environmental and less damaging practices to the environment based on environmental laws such as "green products" or "eco-products"; "green building" or "eco-building".

Sustainability is a socio-ecological process to meet human needs, aspirations and ideals in a balanced approach.

Sustainable development,¹ is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

1 Brundtland, G. (1987). *Report of the World Commission on Environment and Development: Our Common Future*. (online). Retrieved from <http://www.un-documents.net/our-common-future.pdf>



PREFACE

This book is about *change* that encompasses the attitudes, habits, behaviours and cultural transformations towards an environmentally-friendly and sustainable development. *Change* is about taking actions by proper implementation. *Change* is not about abstract ideals or philosophical theories.

Change happens easily if we can understand its reasons, rationales, driving forces, methodologies and pathways and if we were steadfast to be committed to it. *Change* happens naturally if we can correlate its aims with our values, thinking process and philosophies of life. *Change* happens inevitably if it were part of our values

and religion. And *change* is the only constant for survival, and staying relevant.

This book is not a textbook that discusses the origins of processes involved in a *change*. On the contrary, it is a summary of experiences and examples based on my understanding on transformative change that I had gone through in the academia and ministerial settings. Academic institutions are quite relaxed and fragmented in their administrative structure; while ministries are quite hierarchical and relatively rigid. It is easier to mobilise the academic community if we can engage as many people as possible, and to get them to contribute ideas and prepare the

work plans. In ministries and public agencies, *change* has always taken place using the top-down approach i.e. by strong leadership and stewardship.

Eco-shift is about blending the approaches and methodologies of *change* from the top-down to the bottom-up. Eco-shift is not a rigid programme of transformation where specific steps are to be followed religiously. Eco-shift provides insights, aspirations and understandings on various issues related to transformative *change* from individuals, family, organisation, national and global perspectives.



From the global perspective, Eco-shift provides ideas and guidelines for everyone to act upon, according to the United Nations' Sustainable Development Goals (SDGs).² Eco-shift promotes and motivates *change* at various levels and in various situations. Eco-shift defines the priorities and systemic approaches towards sustainable development and implementation.

I began thinking, reflecting and lecturing about Eco-shift in 2016. Prior to that, my theme has always been about eco-strategy since 2011. After attending the Conference of the Parties (COP) - United Nations Framework Convention

on Climatic Change (UNFCC), COP22 in Marrakech in September 2016, I realised that the critical success factors for the SDGs to be implemented are by taking actions, more actions and improved actions! We have exhaustively deliberated a lot about environmentalism, facts and data on environmental degradation, climate change and its impacts. We have spent too many resources on arguing and blaming each other, but very little progress had taken place on significant actions. Why?

This is partly because no transformative changes had taken place in most parts of the world. *Change* in policies and regulatory

frameworks is easily implemented, but has yet able to be translated into behavioural and cultural change. In addition, like other global issues, the environment, climate change and the SDGs have been extensively used merely as a political cliché, and hijacked for their economic opportunities.

Therefore, I write this heartfelt book about Eco-shift. The ideas are mainly from my personal journey, experiences, observations, reflections, exposures and field work, not solely extractions from literature reviews or conference proceedings. There are many other topics that I would like to include in this book, but I try

2 United Nations. "Sustainable Development Goals." (online). Retrieved from <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

to make it as concise as possible to allow readers to complete the reading process in a short period of time. In addition, I try to use as many graphics as possible.

I also try not to be too technical and scholarly in my deliberation as to accommodate a larger readership to benefit from the Eco-shift.

References are inserted accordingly to encourage readers to find out more on the resources available to deepen their understanding on a particular topic.

This book is suitable for policy makers, professionals, environmentalists and those who are interested to

embark on a journey of environmental stewardship and sustainability. This book is not recommended to be used as an academic research or intellectual discourse. Nevertheless, this book is about actions to be implemented, about what we can do as individuals, family, organisation, community and as a nation to contribute to environmental sustainability.

I would like to thank the Universiti Teknologi Malaysia (UTM) for allowing me to conduct my “sabbatical” at the UTM Kuala Lumpur Campus, especially the Chairman, Tan Sri Abdul Halim Ali and the Vice- Chancellor, Professor Dato’ Wahid Omar. My heartfelt appreciation goes to the former Chief

Executive Officer (CEO) of Malaysian Institute of Books & Translation (ITBM), Mohd Khair Ngadiron and his team for publishing this humble book. To my family, especially my wife Zainah, my children and in-laws, all of them deserve a special mention for their understanding during my “hibernation period” to enable me to complete this book.

ZAINI UJANG
Bangi, Selangor, Malaysia
August 11, 2018



“Achieving the SDGs will require **deep transformations** of education systems, healthcare, energy use, land use, urban planning, and deployment of information technologies. These transformations require strong government leadership working in partnership with business and civil society. Integrating the SDGs by 2030 into national strategies, budgets, audits, procurement policies, regulatory and human resource management, and other dimensions of public policy poses major challenges for developed and developing countries alike. While some countries have proven to be better than others at long-term planning and implementation, all countries need to improve their public policies if they are to achieve all the SDGs within the next 12 years. Success will require massive innovation, learning, and sharing of best practices within and among countries.”

Aart de Geus , Chairman and CEO of the Bertelsmann Stiftung
Jeffrey Sachs, Director of the Sustainable Development Solutions Network

Foreword, *SDG Index and Dashboards Report 2018*³

3 Sachs, J. et al. *SDG Index and Dashboards Report 2018*. New York, Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN), 2018.

CHAPTER 1

CHANGE AND ECO-SHIFT

Eco-shift

Holistic transformation towards environmental sustainability

Eco-shift means making radical changes that involves transformation in the way of thinking, decision-making, practices and lifestyle of an individual that could proactively contribute to environmental sustainability. In a community or corporation, Eco-shift means holistic transformation of an entity in its philosophies, policies, strategies, governance, decision-making, financial, technical prowess, standard operating procedures and practices for environmental sustainability. Eco-shift begins with a state of mind and decision framework that could lead to major changes in national policies, corporate strategies, personal lifestyle and cultural transformation.



Zaini Ujang was the fifth Vice-Chancellor of Universiti Teknologi Malaysia, where he graduated with Bachelor of Engineering, in Chemical Engineering in 1988, and became a full professor in Environmental Engineering in 2002. Having served as the Secretary-General in charge of the higher education and Secretary-General for the Ministry of Energy, Green Technology and Water, gave him opportunities to impart his knowledge into public policy and practice. He spearheaded a team to develop Malaysia's Green Technology Master Plan (GTMP) for 2017-2030, to innovate and manage resources strategically to ensure availability, reliability and affordability of the energy and water services, and to advance the application of green technology as well as to promote the Green Economy and Green Living.



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