

Odile Schwarz-Herion  
Abdelnaser Omran *Editors*

# Strategies Towards the New Sustainability Paradigm

Managing the Great Transition to  
Sustainable Global Democracy

 Springer

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Managing the Great Transition to Sustainable  
Global Democracy

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*Dedicated to:  
Da Vinci de Via Romanorum  
and  
Don Giovanni de Via Romanorum*



# Preface

Currently, humankind seems to be on the verge of a Great Transition to new political scenarios possibly involving dramatic political, economic, social, and ecological changes.

It is obvious that transnational and especially global markets require an objective and fair regulation by politics, transnational treaties, and targeted activities of civil society to be sustainable in the long run. On the dark side, further globalization involves the risk of a global anarchy or a fascist dictatorship possibly lasting several decades or even centuries. On the bright side, the current period of transition equally offers the chance for a positive, democratic development by sustainable changes on a global base – ideally leading humankind to the ‘New Sustainability Paradigm’, i.e., sustainable global democracy.

The purpose of the book at hand is to show the current political, economic, social, and ecological development on a global base. This will be done by analyzing drivers and consequences of past and recent transitions and by discussing special issues of Sustainable Development as a base for recommendations of viable strategies to different social players (i.e., civil society, independent conservation groups, politically independent NGOs, scientists, artists, business people, diplomats, and open-minded future policymakers) for the successful implementation of the ‘New Sustainability Paradigm’. Descriptive model scenarios provide the base for this book. These scenarios had once been designed by the Global Scenario Group (GSG) of the Stockholm Environment Institute (SEI), published in three essays including ‘Branch Points: Global Scenarios and Human Choice’ (Gallopín et al. 1997) and ‘Great Transition. The Promise and Lure of the Times Ahead’ by Raskin et al. (2002), further elaborated in works of the Great Transition Initiative (GTI) paper series of the Tellus Institute and updated by Raskin in more recent publications.

My interest in the model scenarios designed by the GSG goes back to 2003 when I started to write my doctoral thesis at the University of Hohenheim. Back then, the supervisor of my thesis, Prof. Dr. W.F. Schulz, drew my attention to Raskin’s essay ‘Great Transition. The Promise and Lure of the Times Ahead’, expressly encouraging me to include aspects from this essay in my dissertation.



Raskin's essay increased my awareness of the political significance of Sustainable Development in the period of globalization and helped me to see the bigger picture behind the situation on the national and international job market and the importance of the different sustainability pillars for humankind on a global base. In the years and months preceding the beginning of my doctoral thesis, there had been an unusually lively discussion about the impact of globalization on the job market. Politicians from different parties discussed possible reforms to deal with this new situation impacting the economic, social, and ecological situation in Germany.

In my professional and social environment, the evaluation of globalization was highly controversial. The majority of middle-aged and older colleagues of the international car component supplier where I worked back then stressed the risks and negative consequences of increasing globalization, e.g., a possible loss of product and service quality due to globalization-driven outsourcing, expensive and risky global IT systems, loan dumping, bad chances on the job market for the future generation, and communication obstacles due to cultural differences and foreign languages spoken within the company. In contrast, young academics including myself tended to see mainly the advantages of globalization, firmly believing that globalization would open the doors for a fruitful exchange of know-how and culture with people from other nations and ethnicities, create synergy effects across national borders in favour of product and service quality, and provide the possibility to exchange know-how with managers and employees of foreign subsidiaries.

In the studies preceding my doctoral thesis when I attended courses of Prof. Dr. Helge Majer in 'Sustainability and Environmental Management' at the Stuttgart Institute of Management and Technology (SIMT), I had become familiar with sophisticated international agendas developed by the UN, possibly suitable to tackle the challenges of globalization successfully and to facilitate environmental protection, social-ethical fairness, and economic well-being across the globe. Raskin's work and the reflection about the question on which of the scenarios designed by the Global Scenario Group (GSG) might most probably come true over the next few decades inspired me to apply these scenarios to concrete examples in politics and the economy in the outlook of my thesis. Finally, I arrived at the conclusion that the 'New Sustainability Paradigm' seemed to be a rather improbable scenario in the light of events happening around the time when I finished my doctoral thesis almost a decade ago. In the following years when I attended many international Sustainability conferences in different countries, I happened to talk to several people who witnessed criminal acts under the cloak of environmental protection. Furthermore, I witnessed fraud in connection with CO<sub>2</sub> emission trade amounting to several billions of euros into which also a renowned German banking house has been involved. These experiences, along with revealing insider info from Sustainability colleagues and knowledge exchange with former FBI counterintelligence agents about greenwashing and whitewashing involving human rights violations, inspired me to found a Private Investigative Agency (PIA) focused on ecological crimes, sustainability fraud, and crimes against humanity.

Occasional insights into international conglomerates of secret societies due to accidental acquaintances made at business trips abroad over the last decade increased

my awareness of the significance of profound historical knowledge which is eagerly studied in secret societies where current and former heads of states as well as influential advisers of heads of states are located. Raised Roman Catholic, I was surprised to find out how closely powerful masonic grand lodges (e.g., United Grand Lodge of England UGLE and Scottish Rite) are linked to the Sovereign Military Order of the Knights of Malta (SMOM) and thus to the Vatican.

These personal experiences inspired me to evaluate the current situation with view to the question on what kind of changes might be needed to give humanity still a chance to implement the Great Transition to the New Sustainability Paradigm and to assess complex political and economic transformations and transitions in real life by means of the model scenarios of the GSG. I shared this idea with my scientific colleague and longtime friend Naser (Prof. Dr. Abdelnaser Omran) with whom I had done several publications over the last decade and who supported me in composing a team of highly qualified and committed authors from all parts of the globe to contribute to the book at hand. Hopefully, this book will serve humans currently seeking the path to the New Sustainability Paradigm as inspiration and practical guide for the peaceful implementation of the New Sustainability Paradigm on a global base.

Ettlingen, Germany  
October 30, 2014

Odile Schwarz-Herion

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March 2015

Odile Schwarz-Herion



# Contents

## Part I Scenarios of Raskin et al.: From Visions to Reality

<b>1</b>	<b>From Conventional Worlds to a New Sustainability Paradigm (NSP): Raskin’s Model Scenarios in the Light of Current Trends.....</b>	<b>3</b>
	Odile Schwarz-Herion	
<b>2</b>	<b>Seeking Realistic Pathways to the NSP: A Literature Review of Key Works in the Great Transition Initiative (GTI) Paper Series.....</b>	<b>9</b>
	Odile Schwarz-Herion	
<b>3</b>	<b>Transitions and Transformations in Western Countries .....</b>	<b>17</b>
	Odile Schwarz-Herion	
<b>4</b>	<b>From Neo-Stalinism to Sluggish Markets: Transition in Romania .....</b>	<b>35</b>
	Calin Valsan, Elena Druica, and Rodica Ianole	
<b>5</b>	<b>Transitions in the Middle East: The Arabian Spring with Focus on Libya .....</b>	<b>49</b>
	Abdelnaser Omran and Odile Schwarz-Herion	
<b>6</b>	<b>Sustainable Strategies for Economic Transitions in Malaysia .....</b>	<b>59</b>
	Datuk Amir Hussin Bin Baharuddin	
<b>7</b>	<b>Lessons Learnt from History: Analysis of Past Transitions and Transformations.....</b>	<b>75</b>
	Odile Schwarz-Herion	
<b>8</b>	<b>Performing the New Sustainability Paradigm: The Role of Culture and Education .....</b>	<b>95</b>
	Kanta Kochhar-Lindgren	

**9 The Role of the Different Players for the Great Transition Towards the NSP ..... 107**  
 Odile Schwarz-Herion

**Part II Ecological Challenges for the New Sustainability Paradigm**

**10 Ecological Pillar of Sustainability and Its Significance for the NSP: Major Problems..... 117**  
 Odile Schwarz-Herion

**11 Urgent Ecological Problems for the NSP ..... 121**  
 Odile Schwarz-Herion

**12 The Myth of Sustainable Food Supply and the Urgent Need for Radical Change from Competitive Corporatism to Sustainable Stewardship ..... 141**  
 Susan Mary Harris

**Part III Challenges in Developing and Threshold Countries to Facilitate the NSP**

**13 Innovative Sustainable Solid Waste Management in Nigeria ..... 157**  
 Abdullahi Nafiu Zadawa, Abdelnaser Omran,  
 and Guy Martin Robinson

**14 On Innovative Sustainable City Architecture Models for Sustainable Cities in Asia or in Europe..... 171**  
 Shabnam Yazdani Mehr and Abdelnaser Omran

**Part IV Summary of Problems and Strategies for the NSP**

**15 Summary of Problems and the Current State of Play ..... 187**  
 Odile Schwarz-Herion

**16 Implementation of the New Sustainability Paradigm: List of Recommendations ..... 191**  
 Odile Schwarz-Herion

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After having worked as project manager and sales engineer in large international enterprises, she became a Sustainable Development Consultant. In 2011, ZAD examined Private Investigator Dr. Odile Schwarz-Herion who also holds the extensive state security permission founded Dres. Schwarz-Herion KG Detektei, a private Detective Agency specialized in eco-criminality and crimes against humanity. Dr. Schwarz-Herion is author and co-editor of several books and journal articles about Sustainability Management, ethics, and crime investigation.



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# Introduction

In the book at hand, the six scenarios developed by the Global Scenario Group (GSG) of the Stockholm Environmental Institute (SEI), categorized into three scenario classes with two variants for each scenario (*Conventional Worlds* with the variants *Market Forces* and *Policy Reform/ Barbarization* with the variants *Breakdown* and *Fortress World/ Great Transition* with the variants *Eco-Communalism* and *New Sustainability Paradigm*), will be used as a starting point for analyzing transitions and transformations in real life. Although the model scenarios developed by the GSG were mainly designed to depict possible future scenarios, they might also be applied to historical, recent, and current transitions as they help to understand and evaluate complex real-life events of significant impact on politics, the economy, the natural environment, and human society as a whole.

Inspired by the scenarios developed by the GSG, ten authors from five continents will contribute to the book at hand by identifying problems, risks, and chances of former and potential future transitions and by treating urgent socio-economic and environmental problems in some detail. The insights derived from these analyses will serve as a solid foundation for the development of strategies which might help civil society to succeed in implementing the Great Transition to the New Sustainability Paradigm as the most democratic and sustainable one of the six scenarios developed by the GSG.

A sophisticated structure will help the reader to get the whole picture in spite of the complexity of the topic and the variety of different issues covered in this book. The detailed analyses and interpretation of a representative selection of historical transitions with far-reaching consequences for the present time, the identification of hidden factors and invisible players triggering and steering former and current transitions of significance for a sustainable presence and a sustainable future, the identification of obstacles for the implementation of sustainable democratic transitions, as well as the discussion of burning ecological questions are indispensable to do a qualified prognosis for the future.

The book will consist of four main parts. The first part (Part I) will provide an overview of the scenarios developed by the GSG (Chap. 1) as well as a short literature

review of a representative selection of the paper series published by the Great Transition Initiative (GTI) of the Tellus Institute discussed in connection with potential pathways to a New Sustainability Paradigm (Chap. 2), followed by examples of historical and current great transitions in real life including summaries of some of the most dramatic historical and current transitions in selected geographic areas, i.e. countries in Western Europe, America, Eastern Europe, the Middle East, and Asia in Chaps. 3, 4, 5, and 6.

The insights derived from Chaps. 3, 4, 5, and 6 will be further specified in the following Chap. 7 by assessing them according to the model scenarios of Raskin et al. and by identifying the real or presumptive drivers behind them in favour of a better understanding of the current political–economic, social, and ecological situation and the potential of humankind to manage a Great Transition to the New Sustainability Paradigm. Chapter 8 will highlight the role of culture and education for the realization of the New Sustainability Paradigm. Chapter 9 will provide an overview of the role of different players for the implementation of the New Sustainability Paradigm based on insights from the preceding chapters, complemented by additional research. Although the focus of Part I is political, economic, and social problems, some ecological issues will be shortly addressed in this first part too.

The second part (Part II) will cover and discuss the most urgent ecological problems including issues of climate engineering, eco-criminality, bioterrorism, protection of biodiversity, as well as water, energy, and food security. The focus of Part II is on the ecological pillar of Sustainability, but economic, political, and social issues will also be occasionally addressed in this part of the book.

Part III, focusing on special challenges for the ecological pillar of Sustainability which especially developing countries and threshold countries are facing in big cities where the major part of the world population is currently located, deals with necessary innovations in sustainable waste management (Chap. 13) and sustainable city architecture (Chap. 14). Innovations in these sectors might facilitate the implementation of the New Sustainability Paradigm.

Part IV will analyze all insights derived from Parts I, II, and III (Chap. 15) and will provide a list of recommendations (Chap. 16) serving as guidelines for the implementation of the New Sustainability Paradigm by civil society, grassroots movements, objective and responsible scholars and scientists, politically neutral NGOs, sincere media players, and open-minded and enlightened politicians to manage and steer the Great Transition towards sustainable global democracy.

**Part I**  
**Scenarios of Raskin et al.:**  
**From Visions to Reality**

# Chapter 1

## From Conventional Worlds to a New Sustainability Paradigm (NSP): Raskin's Model Scenarios in the Light of Current Trends

**Odile Schwarz-Herion**

**Abstract** The “New Sustainability Paradigm” is considered the most innovative, democratic, and sustainable one of six different scenario classes (Market Forces and Policy Reform as conventional scenarios, Breakdown and Fortress World as Barbarization scenarios, and Eco-Communalism and the New Sustainability Paradigm as Great Transition scenarios) developed by the Global Scenario Group (GSG) of the Stockholm Environmental Institute (SEI) to depict possible future real life scenarios and further elaborated in Raskin's *Great Transition* essay from 2002. Civil Society will be the key player in a “New Sustainability Paradigm” in which the search for a liberating, humanistic, and ecological reform changes the character of global civilization, leading to global solidarity, mutual cultural enrichment, and economic ties. As shown in this chapter, an important precondition for this development is a clear definition of Sustainable Development, a term consisting of two elements: One element depicting stability and another element depicting a process of change. Thus, “Sustainable Development” is a development which manages to preserve existing essential items, systems, and values while adapting to new conditions in a flexible way.

**Keywords** Conventional Worlds • Market Forces • Policy Reform • Barbarization • Breakdown • Fortress World • Great Transition • Eco-Communalism • New Sustainability Paradigm • Civil Society

“Sustainable Development is a development which meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland 1987).

Finding a precise and suitable definition for the term “Sustainable Development” is an important precondition for the understanding of the “New Sustainability

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Paradigm” (NSP). Brundtland's definition from the report “Our Common Future” aka “Brundtland Report” (Brundtland 1987) is possibly the most widely known definition of “Sustainable Development”, but neither the first nor the most precise definition of this complex term.

The term “Sustainable Economy” was coined by the German forestry of the 18th century (Schwarz-Herion 2005, with further references) and meant that within a legally regulated area not more trees were allowed to be cut than were able to grow back within a certain cycle of regeneration (Schwarz-Herion 2005, with further references). In the nineteenth century, the term “Sustainability” was adopted by Great Britain and the USA and extended to other lines of business, e.g., in fishing. After 1800, the term “Sustainability” started to include also aesthetic and ecological aspects (Schwarz-Herion 2005, with further references).

Although “Sustainable Development” has become a widely used buzz word all over the globe since the new millennium, a clear definition of “Sustainable Development”, criticized as a “consensus creating empty phrase” (Schwarz-Herion 2005, with further references), is still missing, so that the term “Sustainable Development” is abused by all kind of people for different agendas.

According to the verbal meaning of “Sustainable Development”, the word “sustainable” is derived from the Latin word “sustinere” (=to sustain, to keep up), whereas the term “development” depicts a process of change – usually a change towards innovation and progress. So, the term “Sustainable Development” consists of two different verbal elements: One element depicting stability and another element depicting a process of change. Thus, “Sustainable Development” is an innovative change, which manages to preserve existing essential items, systems, and values.

The majority of scholars agree that Sustainable Development consists of at least three pillars: The ecological pillar, the economic pillar, and the socio-political pillar (Schwarz-Herion 2005, with further references). A truly “Sustainable Development” provides stable ecological systems, socio-political fairness and stability, as well as economic stability. Sustainable ecological systems require clean air, fertile ground, water security, food security, energy security, as well as the preservation of the atmosphere including measures to avoid anthropogenic (man-made) climate change and the protection of the existing biosphere including humans, animals, and plants.

Sustainable socio-political systems would optimize equality between people regardless of national, social, or ethnical origin, gender, age, or religious and ideological affiliation and would foster tolerance between individuals and groups (e.g., between the young and the elderly as well as between Christians and Muslims). Furthermore, sustainable socio-political systems would strive for political empowerment of citizens and for peace by mutual agreements between individuals or entities (rather than by quasi-fascist global legislation or by military intervention to manufacture artificial peace by suppressing dissidents).

Sustainable economic systems would avoid existence-threatening debts on all levels (e.g., debts of states and cities, banks, companies, families, individuals). Beyond that, sustainable systems would ideally seek ways to offer every person on the globe all items and services which are needed to secure the physical and mental health of humans.

In 2002, the Global Scenario Group (GSG) of the Stockholm Environmental Institute (SEI) published their essay “Great Transition. The Promise and Lure of the Times Ahead” (Raskin et al. 2002) as the third in a trilogy by the GSG, building on the two previous essays “Branch Points” and “Bending the Curve” (Raskin et al. 2002, with further references). In their 2002 essay, the authors analyzed the long-term risks and prospects for sustainability by their three uniquely descriptive classes of socio-political scenarios (“Conventional Worlds”, “Barbarization”, and “Great Transition”) and their impact on the different pillars of Sustainability.

“Conventional worlds” describe scenarios which are neither ideal nor totally unpleasant, whereas “Barbarization” describes rather pessimistic scenarios as opposed to “Great Transition” scenarios as the most optimistic ones. Each of these scenario classes consists of two variants. The scenario class “Conventional Worlds” is divided into the two variants “Market Forces” and “Policy Reform”. In the “Market Forces” variant, global competitive market forces determine the global development and supersede environmental and social problems which rank only in the second place. In the “Policy Reform”-variant, the eradication of poverty and the implementation of sustainability require comprehensive and coordinated government action (Raskin et al. 2002).

“Barbarization” consists of the variants “Breakdown” and “Fortress World”: In the “Breakdown” variant, a no longer controllable spiral of conflicts and crises ultimately leads to the collapse of institutions. In the “Fortress World”, the “Barbarization” variant is curtailed by authority leading to the emergence of a global apartheid with an elite in protected enclaves and an impoverished majority outside these prosperous castles (Raskin et al. 2002).

The “Great Transition” scenario is divided into the variants “Eco-communalism” and “New Sustainability Paradigm” (NSP). In “Eco-Communalism”, bio-regionalism, localism, grassroots democracy, and economic self-sufficiency determine events. In the “New Sustainability Paradigm” (NSP), the search for a liberating, humanistic, and ecological reform changes the character of the global civilization, leading to global solidarity, mutual cultural enrichment, and economic ties. The key player in this scenario which is based on the assumption of a planetary society is the civil society. The latter scenario variant is considered the most sustainable, democratic, and desirable one by Raskin et al. (2002).

According to some scholars, a planetary society requires a process of global cooperation on the basis of local initiatives, enabling humans to exist as independent individuals. These authors (e.g., Habermas) point out that the model scenario of a planetary civil society was not only desirable with view to equality of all humans, but also that it was already “five to twelve” because states were only doing planetary politics in inner affairs with view to the financial markets. They stress that the huge gap between North and South made humans sacrifice their life to intrude into the “Fortress Europe” or over the Mexican border to intrude into the USA (NN 2008). This problem was already diagnosed back in 2005 with view to Raskin’s “Fortress World” scenario coming true (Schwarz-Herion 2005).

Nevertheless, it falls short to consider only the North-South divide regarding poverty and equality issues. Actually, it is more realistic to take equally a look at

the social differences within nations including the so-called “rich countries”. This concerns especially the USA with more than 46 million people (15 % of USA’s population) living at Third World level (Ritter 2013). Similarly, in Europe, millions of people do not have enough money to buy food. Since 2010, the number of those who are dependent on food supply increased in 22 European countries by 75 %. 43 million people in Europe cannot afford any food anymore; 120 million are at risk of poverty. In Greece, the youth unemployment rate has risen from 22.1 % (2008) to 55.3 % (2012). Even in seemingly affluent countries like Germany where 45 % of the employment contracts concluded since 2008 are mini jobs 5.5 million people lost their status as members of the middle-class and are now among the lowest owners as a consequence of the financial crisis (Deutsche Wirtschaftsnachrichten 2013). In Spain, the youth unemployment rate reached a peak of 56.1 % in 2013 (Burgen 2013), forcing even highly qualified young people into mini jobs (El Mundo 2013).

In contrast, 1 % of the world population owns about 50 % of the entire world’s wealth according to a study published by the British humanitarian and development organization Oxfam on January 21, 2014 (Roth 2014). Beyond that, the World’s 15 biggest private landowners hold 21 % of the world’s total land mass consisting of 36.8 billion acres of inhabitable land (McEnery 2011).

This shows that considering only the social differences between North and South is antiquated and unrealistic. Instead, the obvious socio-economic disparities between the different classes of society across the globe have to be accounted for and need to be removed to approach the NSP.

According to Ziegler, a planetary civil society should secure the global exchange of interests, requesting a return to a “principle of generosity” with a “normative world view” in which the economy works for and not against humans. Ziegler sees some progress in, e.g., the Movement of the Landless, the Via Campesina (global peasant club), and international NGOs like ATTAC and their connection in the annual World Social Forum (NN 2008). Actually, both the economy and environmental protection should work for and not against humans in the NSP scenario instead of serving elitist circles as a pretext to suppress and exploit people on a global base.

The global financial crisis shows that the global economy is anything but sustainable. Debts on a global scale and the externalization of internal costs in the economic, social, and ecological sector contradict the NSP scenario. Another problem is the increasing erosion of the existing middle-class because a large and stable middle-class would be an essential guarantor for equality, social stability, and a sound standard of living in a planetary society.

The NSP scenario is only feasible if the socio-political framework facilitates the empowerment and political participation of citizens as basis for the optimization of peace within and outside state borders since wars regularly have an extremely negative impact on Sustainable Development – at least on its ecological and social pillar (Westing 2012). Although wars are sometimes supposed to offer new chances for self-made men and self-made women, very few individuals and institutions actually ever reaped economic benefits from wars. Wars and revolutions fought with modern



weapon systems might lead to irreparable damage on nature, property, and human society. Nowadays, nuclear weapons in combination with even more innovative and destructive weapon systems, such as the hostile use of environmental modification technologies, have the capability to destroy the whole planet and all life on earth, thus leading to a final global breakdown instead of facilitating the NSP scenario. Therefore, the first part of the book will put a strong focus on political and social problems which might help to avoid such a scenario.

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## Chapter 2

# Seeking Realistic Pathways to the NSP: A Literature Review of Key Works in the Great Transition Initiative (GTI) Paper Series

**Odile Schwarz-Herion**

**Abstract** A literature review of some key works in the Great Transition Initiative (GTI) paper series based on Raskin's *Great Transition* essay shows that Raskin replaces his dichotomy of two Great Transition variants by a trichotomy of three different types of regions in his essay "The Great Transition Today: A Report from the Future" from 2006. This trichotomy consists of three different types of future regions: Agoria (a more conventional and capitalist region), Ecodemia (based on the primacy of worker ownership and workplace democracy), and finally Arcadia (self-reliant economies, small enterprises, face-to-face democracy, and love of nature). Raskin assumes that nations will be replaced by hundreds of regions as subglobal demarcations based on a global constitution to be created in 2032 ("one world, many places"). In another essay from 2006, Raskin stresses the key role of citizen movements for the implementation of Great Transition. Other essays in this series analyze the strengths and weaknesses of existing economic systems, cover global politics and institutions, design principles and visions for a new globalism, or deal with dynamics of global change. In an essay from 2010, given the unfolding crisis, Raskin doubts that the global "elite" will still be capable of organized cooperation.

**Keywords** Transformation • Agoria • Ecodemia • Arcadia • Millennium Development Goals (MDGs) • State capitalism • Command socialism • Market socialism • WTO • Johannesburg Declaration

After having defined the basic features of the NSP, the next problem is the question on how to get there. First of all, this requires a basic understanding of the terms "transition" and "transformation" which are frequently used synonymously but actually have a slightly different meaning. While "transition" (from the Latin word

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“transire”=to go over to) might generally be defined as a flexible political change, a “transformation” (from the Latin word “transformare”=to transform) is sometimes a radical political change often taking place within a very short timeframe and frequently imposed on people by outside forces. Nonetheless, the boundaries between transitions and transformations are often blurred, and a consciously triggered transformation (e.g., a reform or revolution) can sometimes lead to a series of unforeseen or unwanted transitions. Although transitions usually emerge spontaneously, it is possible to steer, monitor, and manage them.

The next step is to identify not only valuable elements, but also gaps in currently existing solving approaches. This includes a summary of the insights and concepts of a representative part of the entire work of the Global Scenario Group (GSG) written after Raskin’s Great Transition essay from 2002 (shortly labeled *Great Transition*) as well as a look at current developments.

In “The Great Transition Today: A Report from the Future” from 2006, Raskin replaces the dichotomy of the two Great Transition variants (“Eco-communalism” vs. “New Sustainability Paradigm”) by a trichotomy, i.e., three different types of regions which are supposed to exist simultaneously in a Great Transition world by 2084 and which are based on a global constitution to be created in 2032 (Raskin 2006a). Based on the slogan “One world, many places”, Raskin assumes that nations will be replaced by regions as subglobal demarcations, so that the structure of the planetary society might consist of hundreds of regions (e.g., bioregions) differing in character and size. In this connection, Raskin expressly mentions three major types of regions: Agoria, Ecodemia, and Arcadia (Raskin 2006a).

Although Raskin admits that the formation of these regions might involve some conflicts and leaves it open who will form these regions in the first place (e.g., politicians or citizen movements), he supposes that, apart from some remaining tensions, the regional structure would largely stabilize after the crystallization of the regions and that there would be tendencies to end the “era of inter-state wars, colonialism, domination, and nativism” (Raskin 2006a). In spite of containing some traditional elements, the three types of regions described by Raskin (Agoria, Ecodemia, and Arcadia) are more progressive than any conventional political “ism”, i.e., capitalism, socialism, and anarchism.

*Agoria* is the most conventional and capitalist one of the three models. Although conventional consumer patterns prevail in this model which is dominated by large shareholder corporations, it is more democratic, social, and ecological than political models from the year 2000.

*Ecodemia*, an “economic democracy”, is based on the primacy of worker ownership and workplace democracy curbing expansionary tendencies of capitalist firms and focusing on socialized investment processes replacing private capital markets. This type of region is characterized by publicly controlled sub-regional and community investment banks and participatory regulatory processes, overseeing the distribution of tax-generated investment funds. Applications from capital-seeking entrepreneurs are only successful if they meet social, ecological, and traditional financial criteria.

*Arcadia* is a type of region, oriented towards self-reliant economies, small enterprises, face-to-face democracy, community engagement, and love of nature. This type embraces lifestyles favoring material sufficiency, folk crafts, and tradition, but, in spite of a strong emphasis on local values, allows people to participate in cosmopolitan culture and world affairs through advanced technology and transportation systems. Formed by rather time-rich and slow-moving societies, this model combines centers of innovation in the technology sector (e.g., organic agriculture and modular solar devices) and arts (new music, craft products, etc.) as export items with eco-tourism to support their rather modest trade requirements.

In spite of some significant differences among them, all these regional types share common values, such as political participation, healthy universal education, healthcare, social cohesion, exclusion of absolute poverty, and rather fulfilling lives for their populations. People in this scenario, in spite of living in different regional types, would feel as citizens of a world community due to these shared values (Raskin 2006a).

Taking reference to Raskin's (2006a) essay mentioned above, Kates et al. list freedom, equity, democracy, and sustainability as core values of Great Transition (Kates et al. 2006). These values are derived from the Millennium Declaration which lists additionally solidarity, tolerance, respect for nature, and shared responsibility for managing the worldwide economic and social development, securing peace and safety among the nations of the world. Kates et al. express serious doubts that the values stipulated in the Millennium Development Goals (MDGs) are shared by citizens on a global base, alluding that these values were rather utopian, theoretical, and idealistic because survey results regarding citizens' actual attitudes concerning Sustainability in general and Great Transition values in particular were currently missing (Kates et al. 2006). The authors quote a part of the Johannesburg declaration of Sustainable Development which encouraged a broader view of sustainable development beyond ecological and economic aspects by requesting "a collective responsibility to advance and strengthen the interdependent and reinforcing pillars of sustainable development – economic development, social development, and environmental protection – at local, national, regional, and global levels" (Kates et al. 2006, with reference to the Johannesburg Declaration on Sustainable Development 2002).

The Johannesburg Declaration confirmed and concretized the Agenda 21 by establishing Sustainable Development as a global political paradigm with the potential to contribute to the solution of numerous problems all over the globe (Schwarz-Herion 2005, with further references). Comparing the theoretical Johannesburg Declaration with reality, however, human well-being, including economic dimensions like employment opportunity, was dwindling, although public attitudes and actions were generally supportive of economic growth and technological innovation (Kates et al. 2006).

Rosen/Schweickart's essay from 2006 deals mainly with Great Transition economic prototypes "that build on the historical experience of the past century" (Rosen and Schweickart 2006) dividing modern economic systems into several varieties of capitalism and socialism. In Capitalist systems, most means of production are owned by private individuals or private companies. In a modern socialist economy,

the majority of the means of production are owned by the state. There are three kinds of capitalist systems: (1) The laissez-faire “Free market capitalism” (2) The social democratic market economy and (3) state capitalism.

The laissez-faire free market economy is based on neoclassical models, calling for “privatization, deregulation, and a sharp reduction in state sponsored welfare programs” (Rosen and Schweickart 2006) like in, e.g., the U.S. This type of economy largely ignores social and ecological issues because the market usually dominates the state.

The social democracy or social market economy, respectively, as, e.g., in Germany and the Scandinavian countries, tends to avoid the basic flaws of laissez-faire capitalism. This is done by state-provided social services and goods as well as by taking environmental concerns and other externalities into consideration. State and market act as co-partners (Rosen and Schweickart 2006).

In the third form of capitalism, state capitalism, pioneered by Japan and partly adopted by other East Asian societies (e.g., Singapore and Malaysia), the “state dominates the market” (Rosen and Schweickart 2006) and controls the allocation of capital, zoning, and credit restriction to control and to steer consumerism by compelling citizens to save before they spend. Other characteristics are more harmonious workplace relations, minimal stakeholder influence on corporate policy, modest returns on investments (ROI), and far less income inequality (Rosen and Schweickart 2006).

Forms of socialism are *command socialism* and *market socialism*. Command socialism has been introduced in the Soviet Union under Stalin succeeding two precursor models (radical war communism under the Bolsheviks and Lenin’s “New Economic Policy” NEP with some capitalistic elements) and was later on adopted by all communist countries. Command socialism is characterized by nationalization of all enterprises, the abolition of all market structures, and multi-years-plans for the entire economy. Prices for all goods and services as well as wage and salary rates are established by the state. Most social services (education, health care, childcare, and pensions) are provided free of charge. Employment is guaranteed and obligatory for all people of working age. Working conditions are imposed on the workers by the state or by state-appointed management. Command socialism did not respect economic freedom, decision-making, and the civil and political liberties of modern capitalist countries (Rosen and Schweickart 2006).

The other type of socialism, *market socialism*, was applied in practice for the first time in 1950 after Yugoslavia’s break-up with the Soviet Bloc and was later on adopted by other Eastern European countries as well as in the final stage of the Soviet Union under Gorbachev. Market socialism combines elements of socialism with elements of capitalism: The state owns the means of production, but the markets determine production and prices according to supply and demand, thus creating competitive pressure in favor of efficient use of resources. Furthermore, the state provides social services and goods. This type of economy ended with the collapse of the communism and the breakup of Yugoslavia in this part of the world, but experiments with market socialism continued in China and Vietnam and were quite successful (Rosen and Schweickart 2006).

The authors consider *social democracy* as suitable for sustainable future scenarios because it increases human well-being and reduces environmental destruction. Although they appreciate the high degree of worker participation and the rather “small pay differential between upper management and average workers” (Rosen and Schweickart 2006) in *state capitalism*, they think that the state dominated planning involves the risk of power abuse and corruption. They embrace the full-employment in *centrally planned socialism*, since this goal has been failed in most other economies (Rosen and Schweickart 2006), but criticize the inefficient use of resources and a lack of orientation towards consumer needs which made this economy unsustainable and doomed to fail. The experience with *market socialism* (e.g., in Yugoslavia and in contemporary China) has shown that a combination of capitalism and socialism is feasible and has shown amazing growth rates for several years (Rosen and Schweickart 2006).

According to Rajan, the repeated desperate attempts of politicians to solve current global problems (e.g., poverty, widespread violence, and environmental catastrophes) basically failed, sometimes made things worse, and were not suitable to keep pace with new challenges due to missing clear visions and pathways; nevertheless, Rajan stays optimistic that a shift towards a Great Transition was possible within a reasonable timeframe (Rajan 2006). In Rajan’s opinion, “collective imagination and visionary leadership were influential in shaping at least some aspects of change” (Rajan 2006) in historical transitions, especially since the existence of print media allowed the wide dissemination of ideas. The internet brought about further progress by accelerating and optimizing an efficient exchange of visions, concepts, and ideas all over the globe (Rajan 2006).

In Rajan’s opinion, politics has to mitigate tensions created between the “multiple I’s” and the “we” which might be done, for example, by finding “roughly common objectives” (Rajan 2006). Movements addressing and appealing humanity as a whole have the potential to overcome national boundaries due to long-term mutual interests. Examples cited by Rajan include, e.g., Marxists, environmentalists, and, more recently, *dalits* (indigenous people).

Rajan distinguishes between the *governance*, referring to management and administrative matters concerning the stipulation of rules along with checks and balances to ensure a “well-functioning government” on the one hand and *politics* on the other hand. According to Rajan, “good politics” involves the ability to organize power relationships in a way which creates a power balance and mutual respect between different stakeholders, e.g., due to common values, thus providing a sound base for “good governance” (Rajan 2006).

Rajan defines the term “global institutions” as the “type of rules, practices, and constitutional and legal arrangements that either already exist at the global level or those that we can conceive of as being necessary to generate non-violent politics in a *Great Transition* world” (Rajan 2006). Rajan also addresses the problem of “sovereignty” of territorial powers against outside intervention. In this context, Rajan also criticizes the lack of clear rules for interventions of the UN Security Council and the opportunistic politics of its five permanent members by forming “odd coalitions around any specific situation” (Rajan 2006). This and the fact that only these

five members have a veto right in the UNO is a serious democracy deficit of the UN. Furthermore, Rajan diagnoses a strong shift of business regulation from the national stage to a global stage, citing several institutions, including the WTO, the OECD, the IMF, Moody's, the World Bank, and various NGOs as indicator for this trend (Rajan 2006).

In his essay "World Lines Pathways, Pivots, and the Global Future" Raskin distinguishes between different kinds of changes within human-ecological systems, i.e., between "adaptation – alterations of social relations within a given societal structure – and transformation – modification of the societal structure itself" (Raskin 2006b). According to Raskin, certain high impact events might trigger a chain reaction of de-stabilization, e.g., hydrological patterns by climate change, causing food shortages, economic collapse, social disruption, institutional breakdown, and international conflicts involving a wide application of biological weapons, or a collapse in the financial system, leading to massive international debt and a global depression with deep social, ecological, and geo-political impacts.

Two years after this essay, the global financial crisis of 2008 emerged – a crisis plunging many previously rich countries like the U.S. and several European countries into debts amounting to hundreds of trillions of U.S. dollars (see Sect. 5.3 in Chap. 5) – subjecting them to the geo-political plans of those individuals and dynasties who own the money which was previously partly owned by bank clients and partly by the now indebted states.

In the aforementioned essay (Raskin 2006b), Raskin stresses the key role of citizen movements in the implementation of the *Great Transition* even more than in his previous publications (Raskin 2006b). The implementation of a transition to put a new political framework in place, allowing empowered citizens to have sufficient influence on politics, the economy, and the natural resources, might be the only way to prevent these kinds of scenarios described by Raskin.

In one of his most recent essays, Raskin mentioned that the "organized cooperation of the global elite in Fortress World, in the face of unfolding crisis and the resistance, no doubt, of the excluded masses, would be extremely difficult" (Raskin et al. 2010). This scenario might be accelerated if the middle class will continue to be annoyed by a certain kind of self-righteous and small-minded elitist billionaires involved into the Sustainability Movement who enjoy luxury but preach modesty and a sustainable lifestyle to people of the middle-class like a certain man who would later on get involved into the oil-for-food scandal (Rosett 2008) and who did the following public statement at the 1992 Rio Earth Summit on the occasion of the introduction of the UN Agenda 21: "Current lifestyles and consumption patterns of the affluent middle-class – involving high meat intake, use of fossil fuels, appliances, home and work-place, air-conditioning, and suburban housing – are not sustainable. A shift is necessary which will require a vast strengthening of the multilateral system, including the United Nations." (Koire 2011, with further references).

The hidden message behind this statement is the resentment of some representatives of the ultra-rich establishment that the middle-class is also able to afford a touch of comfort. This attitude resembles the mentality and the conduct of medieval clergy: Preaching water and drinking wine.



Last but not least, a view back to history might help to identify possible pathways to the NSP. Studying history allows a bird's eye view of the mistakes humankind has done in the past as well as to positive drivers towards the establishment of more efficient, democratic, liberal, humanist, and ecological paradigms. Politicians, political advisors, ambassadors, high clergy, and intelligence agents regularly study history and develop strategies, e.g., in round table clubs and think tanks. Therefore, the drivers and agents of representative historical transitions in Western countries within the last five centuries with a certain focus on the last 200 years will be examined. Beyond that, more recent transitions in different geopolitically significant areas, including Western Europe, the U.S., Eastern Europe, the Middle-East, and Eastern Asia, will be analyzed to figure out transition drivers, processes, and consequences to facilitate the development of strategies to manage the Great Transition towards the NSP.

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# Chapter 3

## Transitions and Transformations in Western Countries

**Odile Schwarz-Herion**

**Abstract** Especially over the last five centuries many significant transitions and transformations occurred in Western countries. Since Luther's reformation and the Counter-Reformation by the Jesuits who tried to turn the clock back in favor of the Catholic Church, humankind underwent numerous intellectual, political, and economic transformations and transitions, triggered by new paradigms, revolutions, transnational wars, civil wars, and reforms until the emergence and further development of the globalization paradigm between 2001 and 2014. This sequence of historical occurrences, focusing on selected processes in Western European countries including Germany, France, and the USA over a period of five centuries shows that certain patterns of shifts towards revolutionary movements and restoration attempts by reactionary movements tend to repeat over the course of the centuries. This might also be due to the fact that some politicians or political advisors orient themselves on historical events and take political strategies from their historical role models as a guideline for their political decisions and actions.

**Keywords** Reformation • Thirty Years War • Enlightenment • French Revolution • Congress of Vienna • Metternich • Bismarck Empire • Weimar Republic • Perestroika • EU

### 3.1 From Reformation via Counter-Reformation and Thirty Years War to the Peace of Westphalia

The German Augustinian monk and theology professor Martin Luther (1483–1546) published 95 theses on October 31, 1517, inviting the scientific community to a theological disputation about major grievances in the church including the selling of indulgences. Luther challenged fundamental dogmas of the Catholic church (e.g.,

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the Papal Primacy), requiring church reforms (reformation) in programmatic pamphlets (1520) which were rapidly distributed in Germany and abroad due to the invention of the letterpress back in 1450 (Goerlitz et al. 1982).

Although Emperor Karl V 1521 had pronounced the outlawry over Luther (*Edict of Worms*) and Luther's innovative doctrine was banned, many German Sovereigns joined his doctrine. Luther's fight against the authority of the church triggered other revolutionary movements including uprisings of peasants. Luther supported the violent suppression of these uprisings by the Sovereigns; the reformation finally became an affair of the Sovereigns, not an affair of the people (Goerlitz et al. 1982).

A protest of the Lutheran imperial Estates (Elector Princes, Sovereigns, und free cities) against the Edict of Worms led to a military conflict between the allied protestant Sovereigns and the imperial troops in 1531. Some years after Luther's death, the protestant Sovereigns finally achieved the *Peace of Augsburg* in 1555, entitling the Sovereigns to determine the confession on their territories by themselves (principle: "*Cuius regio, eius religio*"). Later on, the reformation spread to the Scandinavian countries, to German Switzerland (Zwingli), and – under Calvin – also to West Switzerland, France, Scotland, and the Netherlands (*Calvinism*) (Hilgemann and Kinder 1986).

In 1534, the *Order of the "Societas Jesu" (SJ)* aka "Order of the Jesuits" or simply "Jesuits", founded by the Spanish knight Ignatius of Loyola, started the Counter-Reformation to restore the power of the Roman Catholic Church. As confessors and educators at princely courts, as teachers in schools and at universities, and by successful missionaries in America and Eastern Asia, the Jesuits gained significant influence on society and politics by psychological skills and innovative education. By a church reform at the "Council of Trent" (1545–1563), the Jesuits wanted to take the wind out of the sails of the Reformation. Additionally, the Jesuits protected the Catholicism against critical voices by strict censorship ("*Index librorum prohibitorum*") (Goerlitz et al. 1982).

After the Catholic Church had won large areas back in Germany due to the Jesuits, an armed conflict between Catholics and Protestants emerged in 1618. This conflict developed into an intra-German power fight between the Emperor on the one hand and the Sovereigns and free cities on the other hand, before escalating into an European war into which also France, Spain, Denmark, and Sweden interfered (Thirty Years War:1618–1648). Germany's population decreased from ca. 18 million people to ca. 6 million people due to this war. Finally, the *Peace of Augsburg* was confirmed by the pan-European *Peace of Westphalia* from 1648 into which the Calvinists were equally included. The Thirty Years War changed the power situation in Europe: While Sweden and France benefited geopolitically, the German states were economically and politically severely damaged by this war. Notwithstanding, the German Sovereigns gained political and social influence by leading prestigious lifestyles, whereas the majority of exploited farmers fell into adscription (Goerlitz et al. 1982).

### 3.2 From Absolutism via Enlightenment to Revolutions in America and France

Since the seventeenth century, absolutism became the predominant form of government in Europe. The Sovereign who was above the law (“*princeps legibus solutus*”=Prince is not bound to the law) ruled absolutely. In France, the absolutism reached its peak under Louis XIV The King as focus of the centrally governed state was considered the only source of law and power: “*L’état c’est moi*”. The politically powerless nobility and the high clergy served at the King’s court, whereas citizens and farmers were exploited by high taxes. (Hilgemann and Kinder 1986).

Based on the rationalism of the seventeenth century, a rationally oriented way of thinking spread among Europe’s educated classes capturing all aspects of life. Trusting in the power of the intellect, one tried to enlighten the darkness and the ignorance (*Enlightenment*). One didn’t accept any authority which might draw any boundaries of thinking, but acted on the assumption of the freedom of the individual and the natural equality of humans while demanding tolerance for dissenters. Well-known representatives of enlightenment are Kant who postulated a reasonable balance between liberty and tolerance in his Categorical Moral Imperative, furthermore Montesquieu who established the principle of *separation of powers* (legislative, executive, und judiciary), and Rousseau who promoted equality by the unlimited power of the people (“*volonté générale*”). Adam Smith applied the concepts of the Enlightenment on the economy, requiring that the state should abstain from any interference into the economy (*laissez-faire principle*) (Kinder et al. 2011).

In the second half of the eighteenth century, the intellectual inspiration by rationalism and the Enlightenment quickened technological innovation (e.g., steam-engine) which, coupled with Adam Smith’s economic liberalism, led to the beginning of the industrial revolution in England. Due to the switch of the agriculture towards *landlordism* along with population growth, many people were forced to leave the countryside, leading to a rural exodus and to an oversupply of workers in the cities. The extraction of cheap raw materials (e.g., cotton) due to the colonization additionally favored the industrialization in England (Bergeron et al. 1975; Goerlitz et al. 1982).

The ideas of the Enlightenment paved the way for the American War of Independence (1775–1783) and the French Revolution. The American War of Independence brought about the “Virginia Bill of Rights” (based on the 1776 “Declaration of Independence”), containing the trend-setting definition of human rights as formulated by Jefferson (“life, liberty, and the pursuit of happiness”) which would later on become the base for the USA’s republican constitution (1787). Since the ca. three million colonists didn’t have any trained troops, money, and war materials, and furthermore lacked a unified command, the congress transferred the supreme command to George Washington who fought against the British colonial army which included 17,000, partly unreliable mercenaries from Hesse-Kassel and Brunswick who were sold by their Sovereigns. As first ambassador of the USA,

Benjamin Franklin managed to win volunteers from France including La Fayette and, beyond that, acquired the Prussian General von Steuben as organizer of the American army. Spain additionally supported the American War of Independence. The American War of Independence led to Great Britain's first defeat since the 100-years war, forcing Great Britain to acknowledge the independence of the North American colonies in the "Treaty of Versailles" in 1783 (Kinder et al. 2011).

Although the mercantilist economy had created prosperity for many citizens, the absolutist state didn't grant them any political rights. The members of the third Estate (rich merchants, bourgeois middle class, free farmers, and low clergy) were equally politically powerless. The wars and the extravagance of the Kings had caused a permanent *financial crisis* of the French state. Urgently needed tax reforms were steadily blocked by the first and the second Estate (nobility and higher clergy) who feared for their privileges. Therefore, King Louis XVI convened representatives of all three Estates on May 5, 1789. On June 17, 1789, the deputies of the third Estate along with some enlightened aristocrats declared themselves the National Assembly and insisted on the elaboration of a constitution (Goerlitz et al. 1982).

On July 14, 1789, when the bread price had reached a centuries maximum (Bergeron et al. 1975), the storm on the Bastille took place because the Parisians wanted to procure weapons in the almost empty and soon-to-be demolished state prison, resulting in violent acts with some dead before the Bastille was surrendered without any further fight (Meidenbauer 2007). In the countryside, the farmers rose against clergy and nobility. In August, the National Assembly declared all privileges of Clergy and Nobility abolished; human rights and civil rights were declared. In 1791, the King had to do an oath on the constitution which contained the separation of powers. France became a constitutional monarchy. There was a preponderance of Republicans in the newly elected National Assembly, among them radical Jacobins and mitigated Girondins (Kinder et al. 2011).

Threats uttered by the Prussian Commander against the opponents of the French Monarchy led to the overthrow of the King who was executed by the Jacobins in 1793. The meanwhile elected National Convent elaborated a republican constitution which was supposed to implement the idea of equality, but should be abrogated "until end of the war". France *de facto* became a Republic. The Jacobin Robespierre and his supporters established a dictatorship and used state terror to defend themselves against the opponents of the Republic. In 1794, Robespierre and his supporters were toppled and guillotined (Goerlitz et al. 1982).

In order to confine the terror from the left (early communists) and from the right (royalists), a new Republican constitution with indirect census suffrage privileging the possession-bourgeoisie was elaborated in 1795. Since the government, the *Directoire* (directoriate), consisting of five people wasn't able to dam the left-wing and the right-wing terror, a coup d'état with the aim to clean the state from royalist corruption in 1797 converted the *Directoire* into a *Triumvirate* (inspired by the Triumvirate between Caesar, Pompejus, and Crassus back in 60 B.C. due to Napoléon's interest in ancient Roman history) which became increasingly dependent from the victorious General Napoleon Bonaparte who had defeated the revolution hostile coalition of Prussia, Austria, and Great Britain in the coalition wars (1792–1795).

### 3.3 Napoleon's Rise and Fall

In 1799, Napoleon dissolved the *Directoire* and the second chamber of the Parliament (Council of 500). Afterwards, he formed a provisional government along with Talleyrand who is considered one of the worst political turncoats by historians until today (Stockmann 2013).

Since 1799, General Bonaparte became the First Consul of a military dictatorship, masked as a democracy, and held all the power in France, before his promotion to Emperor was confirmed by a plebiscite in 1804. This way, the separation of powers and the political participation of French citizens were *de facto* removed. Nevertheless, the personal freedom and the legal equality were acknowledged in private life. The new code (*Code Civil*) supported mainly the rights of the possession-bourgeoisie and became the model for other European codes.

Napoleon tried to push France's hegemony in Europe through by armed conflicts with Great Britain, Prussia, Austria, Russia, and Spain. The reorganization of Germany by Napoleon ended the Holy Roman Empire of the German Nation in 1806 when the Emperor Franz II resigned the crown.

After the downfall of Napoleon's *Grand Army* in the Russian winter in 1812 and his defeat in the Battle of Leipzig in 1813, Napoleon was trounced by a coalition of England, Prussia, and Russia in the battle of Waterloo and sent into exile. Little later, the Bourbons returned to the French throne. Nevertheless, the achievements of the French Revolution would inspire revolutionary forces in nearly all European states (Goerlitz et al. 1982; Bergeron et al. 1975).

### 3.4 The Age of Restoration: The Congress of Vienna, the New European Order, and the Holy Alliance

After Napoleon's wars and reforms had significantly changed Europe's political landscape, the Congress of Vienna (1814/1815) led to a new European order, referred to as "New World Order" (Flathe 1883). The driving forces behind this Congress were the German-Austrian diplomat Metternich who considered all national and liberal movements as supposedly dangerous for the state and the French diplomat Talleyrand who wanted to end the revolution in Europe in order to create "genuine peace" and to allow the principle of monarchy to overcome the republican principle (Bergeron et al. 1975). The main objective of the Congress of Vienna, attended by Sovereigns and diplomats from nearly all states of Europe, was the establishment of solidarity among Sovereign Princes against liberal movements (Kinder et al. 2011).

Talleyrand supported the ultra-royalists' principle of restoration, i.e., the re-establishment of the political situation before 1789, inspired by the restoration of the Stuarts in England in 1660 after Oliver Cromwell's republic. Traditionalists and revolutionaries agreed, however, that one could not turn the clock back completely (Bergeron et al. 1975).

The 1815 Congress of Vienna file, a transnational contract, restored the balance of the five great powers (“pentarchy”): Austria, France, Great Britain (in personal union with the new kingdom Hannover), Prussia, and Russia. The new European order gave way to a century in which the number of transnational wars declined in comparison to previous centuries, whereas the number of civil wars and revolutions within countries rose significantly (Bergeron et al. 1975).

The German states were equally subject to reorganization. The “Deutsche Bund” (German Confederation 1815–1866) consisted of 39 members, including 35 Sovereign Princes, among them Kings of other countries (e.g., Great Britain) due to personal unions with some German states. Austria and Prussia belonged only partially to the German Confederation. Instead of a representative body of the people, there was only a permanent congress of ambassadors from the partial states (“*Bundestag*”); decisions of the Confederation were binding the government, not the subjects. The Prussian-Austrian dualism and the princely sovereignty requirements prevented a strong German government. Metternich implemented his ideas in the “*German Federal Act*” – allegedly in favor of Germany’s inner and exterior security (Kinder et al. 2011).

Tsar Alexander I designed a program, supposed to protect religion, peace, and justice (Flathe 1883; Bergeron et al. 1975) which led to the creation of the “Foundation of the Holy Alliance” in September 1815: The monarchs of Orthodox Russia, Roman Catholic Austria, and Protestant Prussia obliged themselves to a Christian patriarchal government regarding home affairs and to solidarity concerning foreign affairs, deriving their supposed privilege to intervention against all national and liberal movements from a “divine right” (Kinder et al. 2011). Nearly all European monarchs joined the Holy Alliance, the first transnational peace organization of the modern age, used by Sovereigns as an efficient tool of power to strengthen conservative-authoritarian politics (Hilgemann and Kinder 1986).

The British Prime Minister Castlereagh basically supported this politics of cooperation between the European great powers regarding a “Balance of power”. Later on, Great Britain gradually dissolved itself from the political bounds in Europe (“splendid isolation”) and became a palladium for the liberal movements of the small nations. Over time, the solidarity of the powers got split into a more liberal Western bloc (Great Britain/ France) and a conservative Eastern bloc (Russia/ Austria/Prussia). Conservative political leaders and nobility violently suppressed the desire of citizens to participate in politics by insinuating that the subjects were allegedly not able to understand and steer politics (Bergeron et al. 1975).

### 3.5 The Riots and Revolutions in Europe from 1817 to 1848

In 1815, a national and liberal German student fraternity was established in Jena. Following a political murder, committed by a radicalized student, Metternich issued a resolution (“*Karlsbader Beschlüsse*”) to establish a central inquiry commission, resulting in the prohibition of the fraternity, the persecution of all revolutionaries

(“demagogues”), and the supervision of the press and the universities, thus suppressing the national and democratic movement in Germany by police state measures (Kinder et al. 2011).

Since 1820, several revolutions (e.g., in Spain and Italy) against Metternich’s suppressive and reactionary politics spreading throughout Europe were crushed by France and Austria. Greece’s fight for freedom against the Turkish reign (1821–1829), successfully supported by England, France, and Russia against Metternich, caused a Russian-Austrian conflict concerning Turkey. This led to the dissolution of the Holy Alliance, thus facilitating future revolutionary movements.

In France, the “July revolution” of 1830 led to the fall of the ultra-conservative Bourbon Charles X who was replaced by the liberal Bourbon Louis Philipp I, paving the way for the “golden age” of the bourgeoisie (upper classes) due to capitalization and industrialization of the country (Hilgemann and Kinder 1986).

Afterwards, revolutionary movements spread throughout Europe. Uprisings in Brussels led to the creation of the new, independent state named *Belgium* in 1831. Europe’s revolutionary movements culminated in the revolution of 1848, kicked off by Switzerland’s civil war between the liberal cantons and the conservative-Catholic cantons in 1847. The Jesuits were banned from Switzerland; a democratic constitution according to the American model was established.

The key event of the revolution of 1848 was the February Revolution in France: Students, workers, and the national security guard jointly forced the Bourbon king Louis Philipp to step down and proclaimed the Republic (*France’s second republic*), leading to the formation of a provisional government and the establishment of national workshops (unemployment support). The first universal elections for the National Assembly led to a civil majority. In April 1848, an uprising of workers in Paris in June following the closure of the national workshops was violently suppressed, leading to the death of ca. 10,000 workers.

In November 1848, the constitution of France’s second republic, including a 4-years-presidential term without re-election, was issued. In the first presidential elections, Napoleon’s nephew Louis Napoleon received 75 % of the votes due to the concern of voters for security after the Paris riots.

In December 1848, Louis Napoleon became Prince President. Supported by the Jesuit-run church, he dissolved the parliament after a *Coup d’Etat* in December 1851, issued a new constitution (10-years presidential term, press censorship, and control of the national security guard) in 1852, and received 97 % of the votes in a plebiscite which made him *Hereditary Emperor Napoleon* who would later on become Napoleon III (Kinder et al. 2011).

### 3.6 The Rise and Fall of the *Paulskirche* Parliament: Suppression of a New Paradigm

The French February Revolution spread to Germany in March 1848. Demonstrators required freedom of associations, freedom of the press, and national unity. The revolution started in Southern Germany (Baden) and spread to the great powers Austria



and Prussia. In Vienna, Metternich was finally expelled as a consequence of the riots (Flathe 1883).

In Germany, students initiated the first riot on March 13, 1848. After bloody barricade fights in Berlin on March 18, 1848, the Prussian King Friedrich Wilhelm IV withdrew the troops, appointed a liberal ministry, and had to pay tribute to the 230 March fighters killed in action.

Following motions to appoint a German parliament, the “Bundestag” accepted the election of a parliament. In May 1848, the constituent National Assembly in *Frankfurt Paulskirche* was opened. 330 of the 586 delegates were academics. The *basic rights*, elaborated by this “Parliament of Professors”, were declared in December 1848 and became a *Paradigm* for all future German democratic constitutions.

Conflicts with Denmark regarding Schleswig-Holstein led to a crisis within Germany which strengthened the reactionary forces. The memory of the Paris June riots massacre made the mitigated liberals and the bourgeoisie rather join the “old authority and government” than democratic-republican revolutionaries (Kinder et al. 2011).

From October 1848 to March 1849, the constitution was debated in an attempt to synthesize tradition (empire, monarchy, and federalism) on the one hand and progress (universal franchise and parliament) on the other hand. Finally, the constitution granted basic rights, universal franchise, a parliament to whom the government was obliged, and a German federal state without Austria, thus having the King of Prussia as Germany’s emperor and head of state instead of the Hapsburgian Catholic emperor.

In March 1849, the King of Prussia was elected head of state and was offered the dignity of a hereditary emperor, but Friedrich Wilhelm IV rejected this dignity offered to him, leading to the dissolution of the *Paulskirche Parliament*. The rest of the German National Assembly was blown up by military in June 1849. In Southern Germany (Baden/palatinate), Dresden, and Berlin, Baden Revolution troops were knocked down on the request of the Grand Duke of Baden by the Prussian Crown Prince (so-called *Grapeshot Prince*). The revolution of 1848 ended with mass executions based on state court shootings (Hilgemann and Kinder 1986).

After the resurgence of reactionary forces in the 1850s, the politically disappointed German bourgeoisie turned towards the economy. Inspired by the industrialization in England (see above), Germany equally did a shift from agriculture to industry. The economic unification of Germany due to the German customs union along with the construction of railway lines, financed by large joint-stock companies, accelerated the industrialization (Goerlitz et al. 1982).

### 3.7 Bismarck and the German Empire: The Age of Reforms

In Prussia, Wilhelm I became Prince Regent in 1858. He appointed Otto von Bismarck as Prime Minister. Bismarck, a political realist who tended to use war only as “ultima ratio” did some short and resource-saving wars by which he



managed a unification of the fragmented and externally determined Germany. Prussia's and Austria's war against Denmark to free Schleswig-Holstein from the personal union with Denmark and the Austrian-Prussian war (1866) ended with Prussia's victory at Königgrätz (Sadowa). This led to the dissolution of the German Confederation and the establishment of the *North German Confederation* in 1866/1867 (Kinder et al. 2011).

The North German Confederation established a constitution with the following features in 1867: The King of Prussia as hereditary Federal President was entitled to appoint the Federal Chancellor; the federal Council was in charge of the legislative, and the "Reichstag" (parliament) resulted from general, free, and secret elections for the first time in German history. The Southern German states did a protection agreement with Prussia against potential territorial claims by France.

The nomination of a Hohenzollern Prince for the Spanish throne caused a diplomatic crisis between Paris and Berlin, leading to France's declaration of war against Prussia in July 1870 (Oncken 1890). The Prussian-French war which became a German-French war due to the protection agreement of the Southern German states resulted in France's defeat, Napoleon III's fall, and the Establishment of the *Third Republic in France*. Alsace-Lorraine fell to Germany.

On January 18, 1871, the *German Empire* (later on also known as *Bismarck Empire*) was proclaimed, adopting the constitution of the North German Confederation in a slightly modified form. Germany became a federal state under Prussia's leadership. The King of Prussia became German emperor in personal union. After 1871, the internal unity of the German Empire was strengthened by the introduction of a national currency ("*Reichsmark*") and the standardization of the legislation. In the 1870s, the German parliament took legislative measures against the influence of the Roman Catholic Church, including the prohibition of the Order of the Jesuits, the Supervision of the education by the state, and the obligatory civil marriage.

Germany's progressive socially-oriented legislation of the 1880s granted workers a state-aided old-age provision and coverage for sickness and invalidity. Free trade was replaced by protective duty to protect the national iron manufacture industry and agriculture against cheap competition, leading to a significant upturn concerning industry, trade, and big banks in the early years of the empire ("Gründerjahre" = Founders' Years).

At the 1878 *Congress of Berlin* in favor of a European peace framework, Bismarck negotiated a complex European system of alliances. Generally, Bismarck supported colonial aspirations only in favorable situations regarding foreign affairs (Kinder et al. 2011).

Wilhelm II who became Emperor in 1888 dismissed Bismarck in 1890, demanded a "place in the sun" for Germany regarding the colonial race, and operated free trade policy by commercial contracts. Heavy industry, electrical industry, and chemical industry concentrated in corporations (e.g., Krupp, Siemens, AEG, and IG-Farben). Germany temporarily ascended to the strongest industrial nation in Europe whose foreign trade and merchant fleet competed with England (Kinder et al. 2011).

After Bismarck's retirement from politics in 1890, his alliance system which had been focused on peacekeeping was gradually eroded because Wilhelm II,

convinced of a mystical divine right, took incalculable risks with his aimlessly wavering foreign policy under the influence of his consultants. This led to a new power constellation, splitting Europe into two power blocs: The central powers (Germany and Austria-Hungary) stood against England, France, and Russia (Goerlitz et al. 1982).

### **3.8 WWI and WWII: Breakdown Scenarios, Transitions, and the Rise of Fascism in Europe**

The power struggle within the European state system mentioned above, the arms race of the Great Powers, and the German-British rivalry led to growing tensions in Europe. A rash mobilization and ultimatums based on military operation plans aggravated the situation (Kinder et al. 2011).

The assassination of the Austrian heir to the throne in Sarajevo by a Serbian nationalist on June 28, 1914, is generally considered the immediate trigger for the first world war (WWI). One month later, Austria declared war on Serbia, whereupon Austria's ally Germany declared war on Russia and on France and marched into Belgium. Due to the entente with France and the German invasion in Belgium, England declared war on Germany on August 4, 1914 (Kinder et al. 2011). After Germany's initial successes in the West (France) and in the East (Russia), the English blockade had an increasingly negative impact on the German food supply and supply of raw materials. Peace efforts failed due to the rigid adherence of the war partners to their objectives (Goerlitz et al. 1982).

Due to the Bolshevik Revolution in February/March 1917, the overthrow of the Tsar, Lenin's grip to power in Russia (October Revolution 1917), and the Peace of Brest-Litovsk, forced on Russia by Germany, Russia withdrew from the war. The USA entered the war on April 6, 1917, after having efficiently supported the allies (England, France, and Russia) – allegedly out of respect for international law. After a last German United offensive had failed in 1918, the German Command did a ceasefire offer and caused a conversion of the Empire into a parliamentary monarchy on April 3, 1918 (Goerlitz et al. 1982; Parker 1975).

Starting from a Mutiny of the High Seas Fleet initiated by socialists, a socialist-dominated revolution emerged in Germany on November 9, 1918. This revolution led to the resignation of the Emperor, the deposition of all other German Sovereigns, and the proclamation of the German Republic by Scheidemann, forestalling a proclamation of a Soviet Republic by the radical communist Spartacus Union. The armistice negotiations based on the 14-point plan of the American President Wilson led to a truce for Germany on November 11, 1918.

The 1919 Contract of Versailles in which the allies obliged Germany to pay high reparations was based on mutual fear of the European countries instead of trustful international cooperation (Parker 1975). This contract regulated the breaking up of Austria-Hungary, the confinement of Germany's political power and sovereignty,

and the reorganization of the borders in Europe. Austria's annexation to Germany, repeatedly desired by Austria, was denied by the victorious powers.

At the suggestion of Wilson, the *League of Nations* was established in favor of peacekeeping in 1919; the defeated powers and Soviet Russia were temporarily excluded from the membership. The accession of the USA was prevented by a senate resolution.

On November 9, 1918, the last Imperial Chancellor rendered his office to the social democrat Friedrich Ebert. In January 1919, Ebert knocked a rebellion of the radical left (Spartacus uprising) down. The "Weimar Coalition" (social Democrats, Liberals, and Christian Conservatives) won the elections for the National Assembly. Ebert became German President.

The new constitution gave the people considerable rights, but also conceded the president a strong position ("Weimar Constitution"). Ebert repeatedly had to deal with riots and coups of political extremists from the right and from the left wing; democratic politicians were murdered by radicals. The Weimar Coalition lost its majority in 1920.

Since the 1920s, more and more fascist movements emerged in Europe (e.g., in Belgium, France, and Great Britain). In *Italy*, the fascists *under Mussolini* came to power in 1922. Italy converted into a strongly capitalist-oriented totalitarian state.

Germany's economic upturn since 1924 was mainly due to the revision of reparations agreements by foreign credits. The election of the monarchic Hindenburg as German president in 1925 was an indicator for the increasing influence of the right-wing radicals whose groups incessantly fought Stresemann's agreement policy with the former victorious powers (e.g., with France). In 1926, Germany was adopted into the League of Nations and received a steady board seat (Goerlitz et al. 1982).

Due to the high unemployment in Germany, caused by the Great Depression in 1929, the creeping dissolution of the Weimar Republic started due to conflicts in inner affairs. Hitler's appointment as Chancellor by Hindenburg on January 30, 1933, *de facto* marked the end of the Weimar Republic (Goerlitz et al. 1982; Kinder et al. 2011).

The National socialists holding key positions in the Republic (Home Office in the German Republic and in Prussia) terrorized political opponents by their decrees and by thugs, masked as "auxiliary police". The Reichstag fire on February 27, 1933, for which the communists were blamed served as a pretext for an emergency decree which had been prepared several weeks ago and which abrogated the fundamental rights of the Weimar Constitution (Parker 1975; Meidenbauer 2007). Consequently, communists and Social Democrats were arrested and their electioneering was massively hindered, so that the right-wing NSDAP-DNVP-coalition received the absolute majority.

An "enabling act" against the votes of the SPD gave Hitler's government legislative powers (Goerlitz et al. 1982). From March 1933 on, the Federalism was gradually reduced and finally abolished. The German federal states were subject to the control of the German government; the unions and all political parties except from the NSDAP were dissolved (Kinder et al. 2011).

After the assassination of many political opponents in June 1934 and Hindenburg's death in August 1934, Hitler became German Reich President and Chancellor in

one person (Goerlitz et al. 1982). The police force was centralized and placed under the “Reichsführer SS” Heinrich Himmler whom Hitler called “our Ignatius<sup>1</sup> von Loyola” in allusion to the founder of the Jesuit Order (Paris 1983). This takeover of police power by Himmler, the establishment of a secret police (Gestapo), and the establishment of concentration camps strengthened the NS power and increasingly intimidated opponents of the dictatorship by police brutality and state terror (Kinder et al. 2011).

The inhuman national socialist “race” ideology differentiated between an alleged “master race” (“Aryans”) and an allegedly “inferior race” (“non-Aryans”, especially Jews, Sinti, and Roma). The categorization of certain German citizens as “Jews” was often done in an arbitrary way as proven by Hermann Göring’s statement: “I decide, who is a Jew”. Boycott actions against Jewish businesses in 1933 were only the beginning of an increasing disenfranchisement, defamation, and persecution of Jews, culminating in the assassination of over five million German and European Jewish citizens. In addition to Jewish citizens, Sinti und Roma, other “Non-Aryans”, as well as dissident Christians and people of deviating private life styles were imprisoned and murdered in these camps (Kinder et al. 2011).

The national socialists managed to win the masses by efficient propaganda under extensive use of the mass media, mass organizations (NS associations), and perfectly organized mass events, e.g., the Nuremberg rallies and the Olympic Games 1936. Hitler won the people’s confidence especially by the reduction of the unemployment from over five million to half a million within 5 years by targeted labor procurement measures due to an increase in government spending for public investments (e.g., rearmament) as well as tax reductions for industrialists who employed additional workers (Parker 1975). The state procured the funds for the government spending by donations of internationally interwoven German and US-American industrial corporations, money bonds, and finally also by money printing (Goerlitz et al. 1982; Sutton 1976).

In 1938, Austria was connected to Germany. In the Contract of Munich between Germany, England, Italy, and France (1938), the German-speaking areas of Czechoslovakia were ceded to Germany. Nevertheless, Hitler occupied the rest of Czechoslovakia in violation of international law in 1939. Encouraged by the Hitler-Stalin treaty, Hitler attacked Poland without previous declaration of war. Afterwards, England and France as guarantor powers for the survival of Poland declared war on Germany. This marked the beginning of the Second World War (WWII) into which – except from the neutral states Portugal, Spain, Sweden, and Switzerland – all European countries as well as Canada, Japan, Turkey, and the USA got involved (Kinder et al. 2011).

After Germany’s defeat against Russia at Stalingrad in February 1943 and the deposing and arrest of Mussolini after the allied landing in July 1943, the invasion of the Anglo-Americans into the Normandy on 06.06.1944 set the course for

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<sup>1</sup>NB: Nazi is the Bavarian abbreviation for “Ignatius”.

Germany's final defeat. After Hitler's (alleged<sup>2</sup>) suicide on April 30, 1945, the unconditional surrender of the *German Wehrmacht* occurred in May 1945. In order to avoid a loss-making conquest of Germany's ally Japan, the Americans threw two atomic bombs on Hiroshima and Nagasaki in 1945, leading to the capitulation of Japan in September 1945 (Goerlitz et al. 1982).

WWII ended with a crushing defeat for Germany and its allies, bringing about the highest human and material losses in history. The Soviet Union suffered the biggest human losses with over 20 million dead.

Already in February 1945, three months before Germany's capitulation, there had been a discussion about the post-war policy concerning Germany at the conference of the allies in Yalta. In April 1945, Germany was divided into four occupation zones with governance of the supreme commanders in the "Potsdam Agreement" between Stalin, Truman and Churchill. Problems concerning Germany as a whole were regulated in the Control Council. The areas beyond the Oder-Neisse Line came under Soviet and Polish administration (Goerlitz et al. 1982). Some national-socialist functionaries and officers were sentenced in the Nuremberg trials.

### **3.9 The Period After WWII and the Emerging Globalization: A New Paradigm and Its Challenges**

In the period following WWII, several organizations oriented towards international cooperation were founded. In 1945, the United Nations (UN) as successor organization of the League of Nations were founded. The goals determined in Art.1 of the UN Charta are the protection of human rights, equality of peoples, as well as improvement of the general global life standard. In the same year as the UN, the World Bank and the International Monetary Fund (IMF) were founded (Kinder et al. 2011). Actually, the establishment of the World Bank and the IMF had already been discussed during WWII at an international conference in Bretton Woods, U.S., in July 1944 (International Monetary Fund 2014).

Soon after the end of the war, the 1945 winner coalition fell apart into an East-West confrontation. The Truman doctrine tried to contain the expansion of communism in general and the Soviet Union's sphere of influence in particular. Due to these growing tensions between East and West which led to an increasing cleavage of Germany into a communist-oriented East Part and a free, democratic West Part, the construction of an all-German government failed. Since 1948, the USA

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<sup>2</sup>According to the FBI, western Allied forces feared that Adolf Hitler may have escaped at the end of the war since there was no evidence of his alleged suicide, leading to investigations to determine if he was still alive. The FBI files contain a letter from August 14, 1945, according to which a supposed witness claimed to have helped six top officials from Argentine in hiding Adolf Hitler upon his landing in Argentine, where Hitler and his party (over 50 persons including two doctors and two women) allegedly arrived by two submarines about two and a half weeks after the fall of Berlin (Federal Bureau of Investigation 2014).

supported the free part of Europe including Western Germany by Marshall Plan funds regarding the re-establishment of their economies to prevent the expansion of communism. The Americans and the British formed the West German occupation zones into a bizon for economic reasons. The Marshall Plan funds along with the currency reform from 1948 should become the foundation for the subsequent economic upturn in West Germany in the 1950s (“*economic miracle*”).

In 1948, the East–West conflict aggravated due to the *blockade of Berlin* by Soviet Russia and the communist coup in Czechoslovakia, initiated by the Soviets. This led to the beginning of the cold war (Kinder et al. 2011).

In 1949, the occupying powers prepared the creation of separate German states. On May 23, 1949, the German Federal Republic (GFR) was founded in the West Zone. The “Grundgesetz” was declared as preliminary constitution on May 23, 1949. In October 1949, the German Democratic Republic (GDR) was proclaimed in the Soviet East Zone. In August 1949, the first elections to the *Bundestag* took place. The Christian Democrat Konrad Adenauer, related to the allied High Commissioner Mc Cloy by marriage via his wife Auguste Zinsser (Mullins 1988), became the first German Federal Chancellor; the Liberal Theodor Heuss became the first Federal German President (Goerlitz et al. 1982).

Under the leadership of the U.S., the NATO (North Atlantic Treaty Organization) was established in 1949 to strengthen the Western camp (Kinder et al. 2011). Following Winston Churchill’s call for “a kind of United States of Europe”, six European countries, including Belgium, Germany, France, and the Netherlands decided to establish a Council of Europe in 1949 (The Telegraph 2009).

The development of H-bombs and ballistic missiles by the USA and the USSR in 1954 created a “balance of terror” between the two Great Powers. In 1955, the Soviet Union and its European satellite states formed a communist military association, the Warsaw Pact (Goerlitz et al. 1982).

The destalinization under Khrushchev led to a temporary rapprochement of East and West Block as a response to the Soviet coexistence parole in 1957, but soon after, Khrushchev provoked two Berlin crises, finally leading to the construction of the wall between East and West Berlin in 1961 to prevent the exodus from the GDR into the GFR (Kinder et al. 2011).

In 1951, the European Coal and Steel Community (ECSC) was established to merge mining and heavy industry. In 1957, the European Economic Community (EEC) and the European Atomic Energy Community (EURATOM) for the common economic use of the nuclear energy were established. In 1958, the European Parliament was founded. In 1960, seven countries including the U.K. established a European Free Trade Association (EFTA). In 1967, the executives of the ECSC, EEC, EURATOM merged into the European Community (EC) (Kinder et al. 2011).

The 1960s and 1970s brought about some significant changes in the U.S. The abolition of the race laws in the U.S. was prepared by JF Kennedy and later implemented by L.B. Johnson. After JF Kennedy’s assassination on November 22, 1963, the USA got fully involved into the Vietnam War (Kinder et al. 2011).

In the late 1960s and the early 1970s, there have been some movements towards the international regulation of environmental problems and their evaluation at the

interface with social and political problems, e.g., the establishment of the “Club of Rome” in 1968, the creation of the “Environmental Protection Agency” EPA in 1970 in the USA, and the establishment of “Greenpeace” in Canada in 1971 (Kinder et al. 2011).

The 1970s also brought about dramatic changes in the economic and political sector. In 1971, Nixon ended the U.S. gold standard monetary policy, leading to the so-called “Nixon shock” (U.S. Department of State – Office of the Historian 2013).

In 1979, a dramatic energy crisis developed, spreading practically all over the globe (Kinder et al. 2011). In 1973, Nixon had to withdraw the troops from Vietnam due to the Paris Peace Accords. In 1974, Nixon was forced to resign due to the Watergate affair; Vice President Ford became president by succession (NN 2014; Kinder et al. 2011).

The European movement made further progress in the 1970s and 1980s. In 1973, Denmark, Ireland, and the UK joined the European Community. In 1978, the European Council established the European Monetary System including the European Monetary Union (EMU). In 1979, the first direct elections to the European Parliament took place. In the 1980s, Greece, Spain, and Portugal joined the Community.

The 1970s and the 1980s have seen many bomb attacks in different European countries. The majority of authorities and the mass media blamed certain terror organizations (e.g., IRA, ETA, RAF, and the Italian Red Brigades) for the attacks.

In 1980–1988, the first Gulf War between Iraq and Iran about the Iranian petroleum province Khuzestan involved attacks against the Kurds.

In 1985, Gorbachev became the general secretary of the KPSU (communist party of the Soviet Union) and announced the “Perestroika” (Transformation) and the “Glasnost” (Openness) of the USSR. In 1987, President Reagan publicly challenged Soviet Premier Mikhail Gorbachev to tear the Berlin Wall down. In June 1988, Gorbachev visited Germany.

From July to September 1989, GDR citizens occupied embassies of the GFR in East Berlin, Budapest, Prague, and Warsaw. Many GDR citizens fled to Austria after the border to Hungary was opened.

On November 9, 1989 the Berlin wall was opened. The 2+4 negotiations in Moscow (GFR/GDR, USSR, U.S., France & U.K.) starting in May 1990 led to the signature of the Germany treaty in Moscow, putting an end to the rights of the allies and granting sovereignty for Germany in place of a peace treaty.

In July 1990, a State Treaty between the GFR and the GDR about the currency, economy, and social union was made. In September 1990, a cooperation and non-aggression pact was made with the USSR. On October 3, 1990, the Berlin wall separating East and West Berlin was torn down and the German re-unification between GDR and GFR was implemented before the united German Federal Republic received full sovereignty in March 1991 by the ratification of the German-Soviet treaties by the highest Soviet in Moscow. In October 1990, the highest Soviet decided to introduce the market economy. In 1991, there had been bloody military actions against the independence movements of the Baltic States. In April 1991, Georgia declared its independence. After Gorbachev’s resignation, the USSR dissolved on December 21, 1991; the Cold War ended (Kinder et al. 2011).



In 1990/91, growing tensions between the six constituent republics along with Slovenia's and Croatia's declarations of independence led to the decay of the multi-ethnic state Yugoslavia, causing bloody civil wars into which also UN, NATO and EU interfered. Another military conflict of the 1990s into which Western countries interfered emerged after Iraq invaded Kuwait in 1991, leading to the Gulf War waged in the Middle East by a U.N.-authorized coalition force from 34 nations led by the U.S. and U.K. against Iraq (Kinder et al. 2011).

In the first half of the 1990s, significant economic transitions took place in Europe and America. In 1992, the Maastricht Treaty about the extension of the EC to an European Union (EU) with a common internal market and a single currency was signed. In 1993, the Single European market entered into force. One year later, the North American Free Trade Agreement (NAFTA) went into effect between the USA, Canada, and Mexico, becoming the second transnational free trade agreement since the establishment of the EFTA (Kinder et al. 2011).

In the second half of the 1990s, the Amsterdam Treaty strengthened the political significance of the EU, giving more power to the European Parliament and establishing a common foreign and security policy (CFSP). In 1998, the European Central Bank was established. In January 1999, the Euro was adopted as a means of payment for the EMU countries. In March 1999, the European Commission led by Jacques Santer resigned following a report by the Committee of Independent Experts due to allegations of fraud, mismanagement, and nepotism (The Telegraph 2009). In May 1999, the European security and defense policy for crises prevention and fight against terrorism was ratified in the Amsterdam Treaty (Kinder et al. 2011).

On September 11, 2001, terrorists crashed four planes into the World Trade Center, the Pentagon, and a field in Pennsylvania; nearly 3,000 people were killed and over 6,000 were injured. Consequently, the Congress passed an emergency bailout package for the airline industry, George Bush launched the invasion of Afghanistan in 2001, and passed the Patriot Act increasing the ability of law enforcement agencies to conduct searches in cases of suspected terrorism. In 2002, the Department of Homeland Security was created (NN 2014).

The 9/11 attacks, traumatizing people all over the globe, are repeatedly cited by some politicians as justification for limiting the freedom of citizens due to the alleged necessity to wage "war on terrorism" including widespread spying activities on mostly harmless citizens worldwide (e.g., the NSA affair), while criminalizing the attempts of whistleblowers to expose state terrorism and war crimes (e.g., Wikileaks affair).

In 2002 (01.01.2002), the Euro was issued in the 12 EMU countries; some years later, the Euro was also issued in other EU states. In February 2003, the Constitutional treaty of Nice (based on the 2000 Draft Constitution including the charter of Fundamental Rights and the concept for a rapid intervention troop) entered into force (Kinder et al. 2011).

The political and economic development between 2001 and 2014 has seen many dramatic events on a global scale. While European politicians had already blamed the globalization back in the late 1980s for the high level of unemployment in



Europe, the impact of globalization on the European job market became even more visible since 2004, leading to mass demonstrations in, e.g., Germany and France in spite of national reform attempts in some European countries.

The global financial crisis which has started in 2007 and indebted independent states all over the globe by hundreds of trillions of U.S. dollars (see Sect. 5.3 in Chap. 5), making previously wealthy and sovereign states financially and thus actually dependent from the grace of their creditors, shows that the globalization has destabilized previously stable economic systems. The global environmental movement has been focused on the reduction of greenhouse gases since 2007 in a one-sided way, while keeping silence about many other ecological problems including hostile environmental modification technologies and the dangers of genetically modified food.

The currently negotiated Transatlantic Free Trade Agreement (TAFTA) between the EU and the U.S. is a further step towards institutionalized globalization with high risks for all three pillars of Sustainable Development. Although the development of the last 50 years gives little hope that the NSP will be established in the near future, the identification of certain operations behind the scenes to be tackled in some of the next chapters and solving approaches in the environmental sector to be discussed in parts II and III of the book might help to find reasonable solutions to existing problems.

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# Chapter 4

## From Neo-Stalinism to Sluggish Markets: Transition in Romania

Calin Valsan, Elena Druica, and Rodica Ianole

**Abstract** The study of post-communist economies in Eastern Europe continues to be a generous and insightful source of valuable lessons in social and economic transition, particularly when approached through the lenses of integration and globalization. The present chapter uses a vivid historical perspective to follow the Romanian economy and society through a long string of successive and consequential changes, culminating with the transition from communism to free markets. A crucial factor in this approach is to understand history as a complex, path dependent interaction. The main focus of the analysis is on the accumulation and depletion of social capital, before and after the communist regime. The rise of free markets is discussed in connection with the rise of consumerism, and it is argued that the long-term sustainability of any system, including, but not limited to post-communist Romania, depends on the interplay between social and natural capital. The looming economic and environmental challenges ahead can be handled only if social trust makes collective action possible.

**Keywords** Transition economy • Social capital • Sustainable development • Romania • Economic history • Level of trust

Romania is an Eastern European nation with a long and tormented history. Some 21 million Romanians live in an area surrounding the Carpathians Mountains, reaching the Black Sea to the East (Central Intelligence Agency [n.d.](#)). In the past, the country was divided into three independent principalities: Transylvania, Vallachia, and Moldova. The language spoken by Romanians today is a direct descendant of the Latin spoken in the Roman Empire – hence the name of the country (Holban [1983](#)). Much of Romania’s history revolves around preserving its unique language; repelling foreign invaders; and achieving national unity.

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Romanians have survived at the confluence of three powerful empires: Ottoman, Austro-Hungarian, and Russian. Their destiny, collective psyche, and well-being have been profoundly marked by the power struggle among Europe's political and military Juggernauts. Communism in Romania was yet another outcome in a long string of power politics. It was imposed by the Soviet Union, and tacitly condoned by the United States and United Kingdom in the wake of World War II (Roberts 2007). The communist regime ended abruptly in December 1989, because it was clearly not sustainable in the long run. Romanians had to rebuild their system by transitioning to what was perceived to be a more viable model of economic development. It was hoped that supply and demand would work where centralized planning had failed.

More than 20 years later, one has witnessed significant accomplishments, but it is not entirely clear if the new model is truly viable in the long run. Here we argue that the key to understanding long-term sustainability resides in analyzing the interplay between social and natural capital. The main argument is that social capital can be substituted for natural capital and vice-versa. A nation rich in social capital is more likely to embrace sustainability because the costs of collective action are small, resulting in a more efficient utilization of scarce resources, that is, natural capital. In other words, social capital lessens the tragedy of the commons.

Social and economic development is path dependent. Thus, we first discuss the succession of historical events that led to the accumulation of social capital in Romania. We argue that communism had virtually depleted an already low stock of social capital, leaving behind a devastated and exhausted economy. The transition to a more sustainable model of development requires rebuilding social trust in order to reduce the costs of collective action. This is, however, a long and tortuous process requiring determination, patience and some luck.

#### **4.1 Early Transitions: The Origins of Social and Economic Development Model in Romania**

Francis Fukuyama identifies social capital as one of the main factors determining economic development and social progress. As he points out, social capital is forged by successive, political and social events that shape the culture of a group (Fukuyama 1996). Culture and economics evolve in tandem. In order to understand the present, one has to grapple with the historical path followed by them.

Romanian economics and culture have emerged early on from the formidable pressure brought about by the expansionist policies of the Ottoman Empire. The Ottomans have been among the greatest empires of the medieval period. They also were, however, corrupt, rapacious, and abusive. Like the Russians and the Austro-Hungarians with whom they clashed repeatedly, they engaged in unscrupulous geopolitical horse-trading and territorial concessions involving smaller nations. All this against the will and aspirations of Romanians, Serbians, Bulgarians, Greeks, and others who happened to be in their proximity. The wanton lack of empathy shown

towards a smaller nation struggling to survive produced a feeling of powerlessness, vulnerability, and inadequacy in Romanians, embarking them on a fateful journey. Confronted with an overwhelming military force bent on plundering and enforcing economic servitude, Romanians learned how to cope by developing survival strategies and clinging to a precarious limbo of administrative autonomy.

One of the first major political and economic transitions occurred in the eighteenth century, around the time when the clout of the Ottomans began to weaken, and was gradually replaced by the hegemony of the Austro-Hungarian empire in the West, and that of the Russians in the East. The Austro-Hungarians were a multi-ethnic empire centered on the German-speaking Austrians. They competed against the Prussians for the minds and hearts of all German states in Central Europe (Crankshaw 1981). It was the Prussians who eventually unified Germany, but the struggle for political dominance had some positive spillover effects on the smaller nations of Central and Eastern Europe. Both Austria and Germany (who by 1833 had already formed a customs union called Zollverein) were economically prosperous and poised for a spectacular and intensive industrialization (Murphy 1991). This is why Transylvania, who came under direct Austro-Hungarian rule for almost two centuries became more economically developed and prosperous than its sister regions, Moldova, and Vallachia, who came under the influence of the Russian Czar.

By the nineteenth century, a more coherent cultural profile of the Romanians was about to emerge. The nation has managed to show unlikely resilience and obstinacy. An outward propensity towards compliance and sycophancy was but a front for covert defiance and resentment. In fact, Romanians have been so subversive and unruly that even the Ottomans gave up on trying assimilating them administratively, as they did with most of the Balkan nations, and even with Hungary (Turnbull 2003). Yet this survival adaptation came at a hefty price: The unfortunate combination between mistrust and a deeply ingrained lack of respect for rules and authority made large-scale social collaboration very difficult. In spite of the emerging nationalistic discourse, Romanians represented an atomized and individualistic society. These social and cultural characteristics carried over into the present day and represent an important anchor in understanding the dynamics of the communist and post-communist period.

## 4.2 Romania in the Twentieth Century

In the wake of the Great War and the dissolution of the Austro-Hungarian Empire, Transylvania reverted back to Romania, who was for the first time fully unified and economically functional. While still a resource economy, predominantly agrarian, industrialization was slowly taking place. A newfound sense of national pride met a relatively prosperous period. Notwithstanding the Great Depression of 1929–1933, it was the coming of age for the nascent industry and growing economy.

Interwar Europe was, however, a continent on the edge. The desolation and destruction left behind by the Great War was compounded by the economic crisis of 1929–1933. Fascism took a firm hold of Italy and Germany. Bolshevism had engulfed Russia. Military dictatorships emerged in Spain and Hungary. Virulent nationalism was on the rise in almost every European country. Economically, nationalism took the form of currency wars and aggressive protectionism (Brose 2004). *Laissez-faire* was increasingly being considered dangerous to the economic health of nations. The Keynesian revolution did away with worshipping the long-run (Davidson 2009). It was time to focus on instant, government-endorsed economic gratification to save free markets from themselves.

Like many of its neighbors, Romania began to slide towards political and social intolerance. Its budding democracy was in danger of being trampled by a diminutive kind of nationalism. Fortunately, Nazi-style extremism was not taken too seriously and was never fully embraced by the ever-grudging the self-deprecating Romanians.

In the eve of World War II, the Ribbentrop – Molotov Pact carved out the Eastern and Western part of Romania (Biskupski and Wandycz 2003). These significant territorial losses to the Soviet Union and Hungary triggered internally a very short political brush with fascism. In 1940, a military dictatorship assumed power, and unceremoniously put an end to any form of political extremism – from both the left and the right (Honciuc 2011). With fascists and communists imprisoned, the internal political situation stabilized, but Romania stood virtually alone, abandoned by its traditional European allies: France has succumbed to Germany, and Britain was fighting for survival. Not that it matter too much, because a few years earlier, Hitler invaded Czechoslovakia, and then Poland, while both France and Britain looked on. Now, with the clouds of war gathering very fast, the military dictatorship had to choose new allies. Like so many times before in its history, the nation was caught in the crossfire generated by the expansionist ambitions of European empires: this time it was the Third Reich, and the Soviet Union. And like so many times before, it sought an alliance with the far away power hoping to be shielded from the one at its doorstep, who was perceived as a more imminent threat.

The unlikely alliance between the Romanian military dictator, known for its Anglo-American sympathies, and Adolf Hitler dragged Romania into the war against the Soviet Union (Deletant 2006). It was a fateful decision, driven primarily by the desire to retake the part of Moldova occupied by the Soviets. In 1944, following a *coup d'état* that toppled the military dictatorship, Romania broke the alliance with Germany and joined the Allies. But it was too late to matter. By 1945, Romania stood again alone and defeated, destined to remain subservient to the Soviet Union who quickly proceeded to impose communist regimes in much of Central and Eastern Europe.

WWII was a classic case of arrested developments. It did set back the political, economic, and social clock by several decades; it left Romania in a state of quasi-servitude; and it ushered in another political and economic transition. Only this time the economic and political dues were paid to Moscow instead of Constantinople.

### 4.3 Communist Romania

Stalinism represented the dark-ages of communism in Romania, but it fortunately waned within a decade after the end of the war (Deletant 1999). After having paid hefty economic reparations to the Soviets, the country began the recovery process.

By the early 1960, a measure of relative prosperity returned. The government had taken ownership and control of virtually all means of production in industry and agriculture. In spite of this hyper-centralized, heavy-handed approach to allocating economic resources, the economy continued to grow unabated. The growth was mostly driven by an aggressive industrialization based on extensive use of natural resources and labor, with little concern for productivity and efficiency (Parean 2012).

But it was more than economic growth. A wind of change permeated the political discourse and Romania increasingly distanced itself from Moscow. Following the example of Yugoslavia led by Tito, and Czechoslovakia led by Dubcek, Romania led by Ceausescu sought emancipation from the overbearing Soviet dominance (Shapiro 1965). The period of political de-Stalinization and openness leading up to the Prague Spring coincided with a period of vibrant social and cultural renewal. Romania started importing from the West, not only industrial technology, but also Hollywood movies, TV shows, books and magazines. Local writers, actors, and performers were fashioning a relatively sophisticated and rich, almost-post-communist culture. The population of Romania was learning to indulge in an increasingly more Western- and less proletarian-lifestyle. The combination of universal education, equal career opportunities for both men and women, and a more liberated lifestyle, however, led to a massive drop in the birth rate. The country started to experience a pronounced demographic decline. In order to reverse the downward demographic trend, the government decided to restrict abortions (Kligman 1998). As a result, the population of Romania began to grow again, a hit an all-time high of some 23 million in 1989.

When the Soviet Union squashed the Prague Spring in 1968, it dashed the hopes of millions who were yearning for a more relaxed political regime. Ceausescu used this opportunity to gain political capital by standing up to the Soviets and refusing to take part in the invasion of Czechoslovakia. The government also attempted a strategic rapprochement aimed at several Western countries, mainly the United States, France, and the United Kingdom (Tismaneanu 1991). The path taken by Romania in the late seventies and the eighties, however, is but an account of how the Ceausescu regime burnt through the entire stock of political capital accumulated earlier.

The political and social liberalization that took place in the 1960s and early 1970s was not accompanied by a liberalization of the economy. If anything, the iron fist became heavier and more intransigent. The massive and pointless industrialization of the country continued unrelentingly. What could not be done through a more efficient technology and increased productivity was attempted through cheap labor, and a merciless exploitation of the environment. The industrial behemoths of the Ceausescu era eventually gulped the lion's share of the increasingly scarce resources,

leaving the population at a near subsistence level of consumption. The relative prosperity of the late 1960s was replaced with food rationing, power outages, travel interdictions, consumer goods shortages, and a lone television channel broadcasting censored political news and patriotic songs; fortunately, for only 2 h daily. Confronted with a grim outlook, the population grew disillusioned and apathetic.

In a desperate attempt to accumulate hard currency reserves and break the dependence from the supply of oil and other products with political strings attached from the Soviet Union, Romanian exports were dumped on world markets at derisory prices (Mureşan et al. 1998). With outdated technologies, byzantine bureaucracy, structural imbalances, and a deeply disgruntled workforce, it was just a matter of time before the entire system would grind to a halt.

And grind to a halt it did. At the end of the memorable year 1989, in 3 days in December, the entire political and administrative structure of communism crumbled to pieces. With a short outburst of social unrest reminiscent of a Hollywood disaster movie, the Romanian Government and the Communist Party consisting of some four million – about half of the Romanian workforce – vanished without a trace (Romanian Official Monitor 1990). Undoubtedly, it was one of the fastest political extinctions the country had ever known.

#### **4.4 Post-communist Romania: Towards Capitalism**

The spectacular dissolution of political and administrative structures left behind a huge vacuum. In other Eastern-European countries, such as Hungary and Poland, the dismantling of communism had been negotiated and began many years before. In fact, it was managed like a controlled crash-landing, with politicians planning their exit, voluntarily, or forced by circumstances (Mason 1988). Romania had simply hit a brick wall and burst open. For entire months following the collapse of the communist regime, the Romanian economy was in limbo. Romania could have easily ended a failed state, like Nicaragua, Sudan, or El Salvador, but fortunately it did not.

Slowly and painfully, the economy started to move again, despite a dystopian industrial landscape in the backdrop. The prime movers of the early transition period were the remnants of the second-echelon administrative elite of the communist regime.

Early transition was a period of ruthless competition and recurrent political instability. The first democratic elections were held in early 1990 and an overwhelming majority of the population voted for a government dominated by a group of former moderate communists (Preda 2005). The result of the vote did not reveal any nostalgia or sympathy towards communism, but rather the apprehension of the unknown. After four decades of political and social immovability, the population was understandably conflicted about the looming changes. The economic austerity of the communist period was always presented as a necessary cost required ensuring future wealth and prosperity. Tired and disillusioned, the population was now ready to finally indulge in a capitalist lifestyle, but it was told, yet again, that more



sacrifices lie ahead. Voters were obviously hoping for a modicum of normality and stability. In the short run they got neither.

In the first 2 years of transition, street protests alternated with government crises. After a long period in which they kept very quiet, Romanians became accustomed to take to the streets rather hastily. Moreover, with centralized command and planning gone, the system relied entirely on spontaneity of economic agents and enterprises, which was tepid at best.

In spite of alternating governments, and several episodes of civil unrest, much was accomplished by 1996. A new constitution was voted in 1991 (Berceanu 2003). Many important economic and political reforms followed, laying the foundation for significant changes later on, including large-scale privatization, NATO membership, and eventually, European Union accession (Ram 2001). Given the dire straits of the country in 1989, it was quite remarkable that the economy functioned at all and political instability was kept to a minimum. The worrying news was that the changes were proceeding at a snail's pace.

The first major post-communist political shift occurred in 1996, when a new center-right government was elected, changing the approach to reforming the system. While the new political orientation emphasized a more rapid and extensive privatization, the overall pace of the change did not improve (Gallagher 2005). Eventually, the vote reverted back to a center-left government in late 2000 (Preda 2002). Ever since, the country has been governed by numerous coalitions revolving around the center of the political spectrum. The population went to great lengths to ensure that no single party dominates the political landscape, and that moderation prevails. The political fragmentation resulted from here also meant that the system could not function without broad political alliances in which everything was done painstakingly slow.

After 2000, all governments worked hard on harmonizing policies, markets, regulations, and practices with those of the European Union. One of the most difficult tasks was to bring financial stability to the system. The National Bank of Romania, under the leadership of Mugur Isarescu, arguably one of the most recognizable personalities of post-communist Romania, managed to reign in inflation and bring stability to a banking sector that was spinning out of control in the mid 1990s (Daianu and Kallai 2006). During his long tenure at the helm of the National Bank of Romania, Isarescu brought the much needed stability and confidence required by the normal functioning of financial markets and institutions. The fact that the Governor of the central bank enjoyed such a high public profile – reminiscent of that of Allan Greenspan – speaks volumes about the political and cultural mindset of the country in transition.

In spite of sustained efforts and determination, structural imbalances accumulated over almost half a century were hard to correct overnight. Delays in reforming the justice system and persistent corruption became another focal point during the negotiations with the Executive Commission of the EU. In the end, Romania was not included in the 2003 wave of accession. Together with Bulgaria, who was confronted with similar challenges, it had to wait until 2007, when both countries were finally admitted into the European Union (Berinde and Giurgiu 2007).

## 4.5 The Rise and Fall of Communism Redux: Sustainability and Social Capital

The spectacular turn of events of 1989 certainly begs the question: why did communism collapse so abruptly? There is no shortage of theories, and in the case of Romania, conspiracy theories. Obviously, it was not sustainable in the long run. But this is not terribly informative unless one understands the ways in which it was not sustainable.

Besides “globalization,” “sustainability” is arguably one of the most talked-about concepts in recent history (Bakari 2013). It is relatively difficult to give an exhaustive definition but it is fair to say that sustainability is linked to the long-term availability of economic and social resources, and the continuity of a certain type of economic and social dynamics (Daly and Cobb 1989).

Social and economic systems tend to exhibit stability over periods of variable duration. In complex system parlance, they are homeostatic (Waldrop 1993). Younger generations replace older generations, technology advances, social institution change, culture evolves, yet social and economic dynamics remain remarkably stable over decades and even centuries. Large groups of individuals seem to thrive over long periods, in spite of innumerable changes that permeate almost every aspect of their social and economic life.

And then, for no apparent reason, the entire dynamic of the group changes radically (Diamond 1999). Some groups disappear entirely. Some evolve into something bearing but a faint resemblance to the former selves. These moments represent social and economic catastrophes (Poston and Stewart 1998).

Communism and its fate revolve around the interplay between two types of crucial resources: the natural environment with its riches; and social technology, best measured by the stock of social capital available.

At the beginning of the twentieth century, the archetypical communist party resembled a sectarian-like network, with strong internal cohesion and dedication. Communists, often operating illegally, had the willingness to make personal sacrifices until the very end (Conquest 1991). Communism came to power in countries with low social capital that represented, in the words of Lenin, the weakest links of the capitalist system (Lenin 1917). Here, the contrast between the huge stock of social capital within the party, and the lack of trust prevalent among the general population was the starkest. Fanaticism is just a garden variety of social capital. This is how a small group of well-organized and devoted communists encountered little resistance from a huge population divided by suspicion and fear. The large costs of collective action made collusion and resistance to dictatorship unlikely.

Blind devotion among the ruling elite also made it easier to conduct repression and purges. This explains the Stalinist purges in which literally millions perished while hardly putting up any resistance.

However, the same general lack of social capital that opened the way to dictatorship also threatened its long-term viability. If people could not collude to resist dictatorship, they could not collude to build bridges, schools, hospitals, and in general, to achieve prosperity.

Like all Eastern European countries, Romania went through a brief Stalinist period. Unlike the Soviet Union, however, Stalinist-style fanaticism was relatively rare in Romania, and needed the support of the Red Army (Pokivailova 1997).

Once the Red Army left, Romania reverted to a more natural and spontaneous social dynamic. The period of the Ceausescu regime has been often characterized as neo-Stalinist (Siani-Davies 2005). This is in fact a misnomer, because the communist regime of the 1970s and 1980s was only mildly repressive, yet deeply dysfunctional and incapable of doing much of anything. It was a case of slapstick despotism and pastiche tyranny (Gruia 2007). It was not bloody or violent, merely economically and culturally devastating. The communist party membership of over four million strong by the late 1980s was certainly not fanatic, but rather apathetic. At the top of the political hierarchy sat a handful of aging dogmatics while the rank-and-file went about their business groaning and moaning. They ridiculed and despised their leaders and their predicament, and learned how to cope with the shortages of daily life. Just like they did in the past, Romanians put on a compliant persona, but were oblivious to the directives of the party. Passive resistance and complacency came naturally to them.

It was this existential role-playing and the grim economic outlook that Romanians resented as oppressive. The failed, large-scale social engineering brought about disillusionment. Although everyone tacitly agreed something must be done, no one wanted to assume the responsibility and the costs of reforming the system, like in Poland or Hungary.

And yet communism in Romania collapsed in spite of a chronic lack of organized resistance to dictatorship. The misguided attempt to industrialize the country – nineteenth century style – eventually left the economy bankrupt. One of the favorite mantras of the official dogma was the need to control and transform the environment (Ceausescu 1968). In theory it was meant to represent a show of economic force. The triumph of the will. Man taming nature. In practice, however, it meant selling the family silver.

Imagine that long-term economic prosperity is drawing momentum from two separate fuel tanks. One is filled with natural capital: the environment and all of its natural resources. The second one is filled with social capital. Both ingredients are required in order to have a functioning economy. Social capital is required in order to generate collective action – the resource that sets the whole economic process in motion. The higher the stock of social capital – the more complex the economic output and the higher the overall efficiency.

Natural resources and the environment provide the physical substrate on which collective action – that is, economic activity – takes place. Social capital mitigates the tragedy of the commons and represents a crucial ingredient for delivering public goods. The environment and its riches represent a quintessential public good. This is why nations rich in social capital and trust make the most of their natural resources. They generate more economic output and they waste less. As it will be explained next, the communist regime of Romania desperately tried to compensate the lack of social capital by intensifying the exploitation of natural resources and the environment.

Communist Romania, and its Eastern European neighbors of Bulgaria, Poland, Hungary, East-Germany and Czechoslovakia could not use forced labor because repression was less widespread and less effective than in the Soviet Union. As argued earlier, their communist parties were not dominated by fanatics, but rather by opportunists. Romania attempted gulags and labor camps in the 1950s, but gave up eventually (Goma 1990). True, stories about the feats of the East-German *Stasi* and the Romanian *Securitate* abound. Some of them are true, but many are grotesquely distorted and exaggerated (Pacepa 2011). Even so, they simply pale in comparison with the horrors inflicted by the CHEKA under Felix Dzerzhinsky, and the NKVD under Genrikh Yagoda, Nicolai Yezhov, and Lavrenti Beria. At the height of the Great Purge, on average of 1,000 individuals, including children were executed daily on Stalin's orders (Pipes 2003). Millions were exterminated, and millions ended up in gulags as forced labor. None of this has ever happened in Romania during its darkest hours.

The activities of the *Stasi* were directed at intelligence and counter-intelligence operations, and stopping ordinary citizens from climbing over the Berlin Wall. The activities conducted by *Securitate* were aiming at counter-intelligence operations with and against the Soviets, and economic espionage in the developed world (Stan and Zaharia 2007). Albeit significant, political censorship and repression was only part of its activities.

The de-Stalinization of the late 1950s and 1960s was accompanied by an increase in social trust and cohesion that fueled the economy for a number of years (Granville 2008). Towards the end of the Ceausescu regime, however, the tank of social trust and good will was running on empty. This is precisely when the economy began stalling for good in spite of desperate efforts made by the government to use soft coercion: Scores of school-age children, students, military conscripts and even professionals were mobilized to harvest corn by hand, pick up the litter in public places, or provide other types of un-compensated menial work. Communism was having a problem – it could not make people work together. And sometimes it could not make them work at all. Faced with this persistent and debilitating ailment, the only option left was to input more and more natural resources.

Most of the industry in communist Romania was the epitome of wasteful and inefficient manufacturing. Romania had built a steel industry with a capacity far exceeding its internal needs, at the time when international markets became saturated with cheap steel from Korea, Brazil, and later China. Romanian steel was produced and exported in large quantities, and was of lower quality than that of its competitors (Mureșan et al. 1998).

Romania was also manufacturing cars, trucks, tractors, and even airplanes, some of them under license. Unfortunately, in order to save on hard currency, these products and technologies were already dated and less efficient. Even so, the cars and trucks manufactured under license were using significantly more raw materials and energy than the original products they were meant to replicate (Mureșan et al. 1998).

Pulp mills were dumping waste into fresh water. Chemical plants were spewing visible and invisible toxic clouds in the near-by towns and densely populated areas.

The infamous town of Copsa Mica was literally covered in black soot: humans, building, cars, plants, and all the rest (Harford 2013).

Agriculture and forestry were not in better shape. Crop rotation was not followed properly, forests were depleting, and rivers and lakes were overfished. What was initially conceived as intensive had become subsistence agriculture. This is why after the fall of communism Romania was grudgingly becoming a food importer (European Commission 1998). To add insult to injury, the nightmarish urbanization dream of the communist leadership displaced millions of workers from agriculture to industry; and from villages to increasingly overcrowded cities and towns. This was one of the most fateful policies of the Ceausescu era (Dinu et al. 2005).

## 4.6 Transition to Sustainability: The Long-Term

In 1989, the Romanian economy was in dire straits. The changes already taking place in Eastern Europe represented the proverbial straw that broke the camel's back. The regime collapsed almost by itself – it had reached the tipping point that triggered a catastrophe in a critical system – an avalanche in a pile of sand.

The communist dogma of man in control of his destiny and nature was out. The new dogma of the destiny controlled by supply and demand was in. In a strange sort of way, both could lead to unsustainable economic outcomes. During the early transition period, the systematic and extensive abuse of the environment and its natural resources was replaced by chaotic plundering. The remnants of a more distant cultural heritage, dating back to the period of the Ottoman Empire, compounded by decades of a dysfunctional communist regime exacerbated at first the tragedy of the commons. Until the stock of social capital began to regenerate in the early 2000s, the stock of natural capital and the environment suffered the most (Amariei 2005).

Romania began emulating institutions, markets, and attitudes from Western countries – mainly from the US, directly, or indirectly via several EU countries. The rise of free markets led to the rise of consumerism, which is one of the most significant threats to sustainable economic growth (Worldwatch Institute 2010). Early transition witnessed the proliferation of Ponzi schemes – the epitome of unsustainable systems – with devastating results for the banking and financial system (Verdery 1995).

As generations changed, however, the stock of social capital began to replete. While still behind neighbors like Poland, Hungary and the Czech Republic, major positive shifts in the culture of collaboration are becoming evident. There is more concern today among the population about pollution, the environment, and the use of natural resources, than ever before (Lever 2012). Consumers are already clamoring for health and safety standards that are as stringent as in any other developed country (Government of Romania 2013). Romania even set a small, yet significant world record by becoming the first country to impose a tax on junk-food (EurActiv 2010). Environmental regulation and awareness of sustainability issues are becoming part of the common psyche.

Romania is now part of the European Union and by 2019 it will also be part of the Euro zone (National Bank of Romania 2013). The economy has come a long way from the period of the early transition. Its public finances are not in great shape, yet they are not in terrible shape either. The public deficit and debt are relatively smaller than those of countries like Greece, Italy, and even France (World Bank 2014). In the end, however, free markets in Romania, are sustainable only if the mainstream model of economic growth promoted by the main industrialized countries is sustainable; and if Romanians will succeed in building up the most critical resource of all: the stock of social capital. The looming economic and environmental challenges ahead can be handled only if social trust makes collective action possible.

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## Chapter 5

# Transitions in the Middle East: The Arabian Spring with Focus on Libya

Abdelnaser Omran and Odile Schwarz-Herion

**Abstract** According to the mass media, the Arabian spring, a series of revolutions in the Arabian countries, which originally started in Tunisia back in December 2010, then spread to Egypt and Libya in February 2011, and later on to other Arabian countries like Syria and Yemen, started as a genuine grass-root-movement due to serious human right violations. In the first half of 2014, a survey was conducted in Libya to find out how people in Libya who experienced the Arabian Spring perceived the situation before and after the Arabian Spring. The survey revealed that the Arabian Spring movement indeed started as a grass-root-movement, because people in Libya were dissatisfied with the situation in their country due to high unemployment and the wrong people in high positions but was hijacked later on by Western powers. In sum, the overwhelming majority of participants had the impression that the situation in Libya deteriorated after the Arabian Spring.

**Keywords** Arabian Spring • Al-Kayiedah' • Ansar Alshariay • Green Resistance • Benghazi attack • City of London • Libor Fraud • U.S. Libya Ambassador Christopher Stevens • Muslims • Crusaders

As paradigms fall and theories are shredded by events on the ground, it is useful to recall that the Arab revolts resulted not from policy decisions taken in Washington or any other foreign capital but from indigenous economic, political, and social factors whose dynamics were extremely hard to forecast. In the wake of such unexpected upheavals, both academics and policymakers should approach the Arab world with humility about their ability to shape its future. That is best left to Arabs themselves. (F. Gregory Gause III Professor of Political Science at the University of Vermont 2011)

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The quote above summarizes some insights about the Arabian spring, a series of revolutions in the Arabian countries, which originally started in Tunisia back in December 2010, then spread to Egypt and Libya in February 2011, and later on to Bahrain, Syria, and Yemen. While the revolts in Bahrain were rapidly quelled in a violent way, the political leadership in Tunisia and Egypt changed within a relatively short time. After Nato's interference in support of the Libya protests in March 2011 and continued fights over a period of 5 months, the Qaddafi family finally fled Libya in August 2011 following the capture of Tripoli by Libyan rebels and Nato's bombing campaign (The Telegraph 2011).

In the mass media, especially on T.V. and in the daily newspapers, the Arabian Spring movement has often been celebrated as a successful, democracy-oriented grass-root movement against allegedly oppressive governments, supposedly committing serious human right violations. Is this judgment true or rather a media legend? A survey in Libya, performed in the first half of 2014, was supposed to shed some light on many urgent questions concerning the Arabian spring in general and the transition in Libya in particular.

## 5.1 Methodology and Participants of the Survey in Libya

A questionnaire, encompassing 16 questions regarding political, religious, social, economic and ecological issues, served as a base for the survey, which was handled in a flexible way in the form of semi-structured oral interviews. Since not all of the participants were proficient in English, the questions had to be translated into Arabian language for some of them.

Fifty three persons, all of them Muslims, but from different age groups and different educational and professional backgrounds, participated in this survey. Although this relatively small sample size does not allow for a statistically viable quantitative evaluation of the survey, the composition of the survey participants, which included persons from different age groups, males and females, academics and non-academics, and particularly the fact that some of the participants had first-hand knowledge about key events due to positions in the government sector allows for a profound qualitative evaluation of the survey. For simplicity, all percentages are rounded. Due to some overlaps and some missing data, the percentages do not always yield 100 %.

Two percent of the interviewees were between 16 and 25 years old, 17 % were between 26 and 35 years old, 55 % were between 36 and 49 years old, 19 % belonged to the age group of the 50–65 years range, and 7 % pertained to the age group of 66–79. The majority of the respondents (87 %) were male, whereas only 13 % of them were female. Almost 70 % of the participants were Singles with children, 21 % were married without children, less than 6 % were married with children, 2 % were Singles without children; 2 % were widowed with children.

The majority of the participants (79 %) were academics; 4 % held a PhD; 38 % worked in the government sector. Graduate students, who held at least a

first university degree formed the second largest group (30 %); 21 % of the participants worked in the private sector, 8 % were business owners, and 4 % of them worked for NGOs.

## **5.2 Drivers and Consequences of the Arabian Spring**

Questioned about the agents and driving forces triggering the Arabian spring, 82 % of the respondents claimed, that the Arabian spring originally started as a genuine grass-root movement, because the situation before had been untenable due to corrupt governments, high unemployment rates and the wrong people in high positions. Nevertheless, this group clarified, that the Arabian spring was later on hijacked by foreign forces and that the country would generally be better off without the Arabian spring. Twenty percent of the respondents got more concrete by blaming Western transnational organizations for having hijacked the Arabian spring movement for geostrategic and other egoistic purposes, finally doing more harm than benefit to Libya. Only 18 % of the participants stated, that the Arabian spring had been originally triggered by anger about severe human right violations and the dictatorial behavior of those in power, stating to be grateful that it was later on supported by the courageous and altruistic assistance of Western countries, who helped the people in Libya to establish more democracy in their country.

The next point in the questionnaire concerned the question, whether the situation in the Arabian countries had actually improved after the Arabian spring. According to the overwhelming majority of respondents (85 %), the political situation had deteriorated after the Arabian spring, because the politicians and citizens in Libya became more dependent on Western countries than ever before. Only 7 % of the respondents stated, that the political and the economic situation had improved since the Arabian spring, whereas equally 7 % thought, that the political and the economic situation in Libya has neither improved nor worsened since the Arabian spring.

## **5.3 Questions Concerning the Benghazi Attack and Terrorist Organizations**

The question, who and what had been behind the attacks in the US embassy in Benghazi on September 11, 2012, which were widely reported in the international mass media, resulted in the following answers: 80 % of the respondents, who heard about this attack by hearsay within the country and in the media were convinced, that the attack was an act of genuine rebels in Libya to make a point against Western imperialism. 17 % of the respondents, however, denied the veracity of this version of the story, alleging that there wasn't any US embassy in Benghazi and that most

mass media reports were flawed and targeted at spreading disinformation to distract from the truth and to push a hidden agenda.

Six percent of the respondents claimed that the Benghazi attack had actually been a “false flag” attack staged and implemented by Anglo-Saxon intelligence: 4 % claimed that the attack was staged by members of the Bush era Establishment via contractor firms tasked with “CIA black ops”, executed by the *Green Resistance*. Two percent alleged the involvement of British Intelligence into the Benghazi attacks, claiming to know for a fact that the British Home Secretary Th. May’s Guild of Bodyguards – a paramilitary group of intelligence agents and extortionists deployed by City of London Livery Companies linked to the British Blue Mountain security firm – staged a “Wag the Dog rape” of Obama’s U.S. Ambassador to Libya, Christopher Stevens on September 11, 2012. Targeted internet research based on the latter hint led to a basically credible private intelligence source,<sup>1</sup> according to which the British Bankers’ Association hired Th. May to deploy the Guild of Bodyguards through companies like Blue Mountain to accelerate debt recovery, to stage propaganda attacks on the United States chain of command and to kill prospective whistleblowers such as Ambassador Stevens to cover up the City & Guilds \$ 800 trillion Libor fraud on citizens of sovereign states (McConnell 2012).

Seventy percent of the participants confirmed a media report according to which Ansar Alshariay and AQUIM communicated with each other on the day of the Benghazi attack (Cruickshank et al. 2013), whereas 28 % had no idea, if this was true. Four percent of the respondents claimed, that this media statement was a lie, fabricated by the media to distract from the truth.

Confronted with the question on why the USA didn’t actively support Libya against Ansar Alshariay in spite of labelling Ansar Alshariay a “terrorist” organization, 36 % of the participants didn’t have any explanation for this. Twenty-six percent of the respondents assumed, that the USA was too anxious to fight against the powerful Ansar Alshariay, whereas 38 % of the respondents alleged, that certain circles around the US government secretly had built up the Ansar Alshariay with financial resources of the global establishment to enhance conflicts in Libya in favor of their own agenda.

A question about the origin and the significance of Al-Kayiedah’ resulted into the following answers: 49 % of the participants agreed, that Al-Kayiedah’ was a global militant islamist organization, founded by Osama bin Laden in Pakistan, whose origins were traceable to the Soviet War in Afghanistan. Only 8 % of the respondents considered Al-Kayiedah’ a grass-root movement of Muslims holding strong idealistic values.

Forty-two percent of the respondents claimed, that Al-Kayiedah’ was a “false flag” organization, created and funded by the CIA and other parts of the US-Establishment. Apart from these hints, backed up by acquainted former

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<sup>1</sup>For the biographies and background of those running this website, Field McConnell (airline pilot and fighter pilot) and David Hawkins (Forensic Economist and Cambridge alumni), please have a look at: <http://www.abeldanger.net/2010/01/field-mcconnell-bio.html> and <http://www.abeldanger.net/2010/01/source-hawkscafe.html>

Afghanistan soldiers under U.S. command, internet research equally confirmed this allegation:

Hillary Clinton once confessed in public interviews available on internet videos, that the U.S. government had created and funded Al-Kayiedah' at the height of the Soviet-Afghan war (Chossudovsky 2013).

## 5.4 Political and Economic Attitudes

The question on how to handle cases of foreign politicians, who interfere into other countries' politics under violation of international law and how to deal with cases of foreign individuals or entities, who stir up conflicts or stage "false flags" attacks to harm other countries, resulted in the following answers: The majority of the respondents (66 %) would encourage diplomatic solutions for this kind of problems, i.e. negotiations between the diplomats of the interfering country and diplomats of the victimized country, whereas 17 % suggested that the secret services of the country into whose politics foreigners interfered should catch these foreigners and put them before the national courts of the country into whose politics they interfered.

Fourteen percent suggested putting foreign aggressors before an international Court. Seven percent of them would put the foreign criminals before the International Court Peace Palace in The Hague, because such a matter was of public interest for humankind on a global base. The other 7 % suggested that foreign criminals should be put before a newly created global Crime Court, alleging, that the International Crime Court in The Hague was "filthy, serving only the interests of those in power" and supposedly allowed warmongers and other internationally operating criminals to get away with everything.

Asked for their opinion on Western countries, 34 % of the respondents stated, that only some Western countries showed imperialist tendencies, whereas other Western countries definitely shared idealistic goals with Libya. Four percent of the respondents thought, that all Western countries had strong imperialist tendencies and were generally at odds with Libya's culture. Four percent of the respondents stated that there didn't exist any imperialist countries, but only imperialist dynasties and imperialist transnational entities, including influential secret societies. The rest of the respondents had no opinion regarding this question.

Asked for the form of state they would prefer, 34 % would like to have their former Islamic People's Republic back, whereas 30 % of the respondents would prefer a parliamentary democracy. Thirteen percent would desire a direct democracy with plebiscites based on objective and detailed information.

Eight percent would prefer a modern technocracy by enlightened and ethically responsible academics and equally only 8 % would prefer an aristocracy. Only 2 % would prefer an absolute monarchy and equally only 2 % would prefer a one-person-government, if it was run by someone intelligent with human ideals. Equally only 2 % would decide in favor of communism.

Sixty-six percent of the respondents could imagine a One-World-Scenario under the provision of a global direct democracy with plebiscites based on objective, extensive information about the issue of the plebiscite, whereas only 24 % of the respondents considered a one-world government (according to the New World Order as designed by the global Establishment) desirable, supposing, that such a global government might lead to democracy and world-peace on a global base. Ten percent of the respondents expressed concern about the idea of a One-World-government, which, in their opinion, might involve the intrinsic risk of power abuse and would endanger diversity, which was indispensable for true democracy.

The first question in the economic section of the questionnaire referred to the problem how to handle the banking crisis. According to 89 % of the respondents, the banking crisis should be handled in any case by exposing dubious or even illegal activities of influential banking cartels like the City of London and the Federal Reserve in the mass media; over 49 % of the respondents recommended that the aforementioned banking cartels should additionally be controlled by politics. Thirty-four percent of the respondents recommended citizen movements against dubious and illegal doings of influential banking cartels. Seventeen percent of the respondents suggested that politics should take measures in favor of the gradual abolition of the aforementioned banking cartels, while only a small majority of 6 % suggested even stricter measures against banking cartels by blatantly demanding the general prohibition of banking cartels by politics.

The question about the participants' opinion on the impact of the recently established central bank in Benghazi on Libya's economy, yielded, that none of the 53 participants had been aware of the establishment of a central bank in Benghazi, although the information about the establishment of this central bank is available on the internet (Carney 2011). Eventually, this lack of awareness of the existence of this bank in Libya is due to the fact, that this bank was established in Benghazi during the revolution, when the majority of Libya's citizens were busy with more urgent problems.

The question on how problems due to the increasing globalization of the business sector should be handled in a more modern and democratic society moving towards the New Sustainability Paradigm triggered the following answers: The majority of respondents (73 %) recommended that problems created by transnational or global enterprises should be solved by the lawmaker. Among these respondents, 66 % even suggested the general prohibition and immediate dissolution of globally operating enterprises by law without the state granting the owners any damage compensation while recommending that local businesses, especially in the food, water, and textile sectors, should be supported by the state. Seventeen percent suggested, however, that the owners of global companies, which were dissolved on the order of the state, should receive damage compensation within the state's financial possibilities. Around 30 % of the participants recommended that citizen movements should aim at dissolving globally operating enterprises by peaceful, but efficient measures and ban any globally operating enterprises while supporting local businesses, above all in the food, water, and textile sector. Seventeen percent, in comparison, suggested,

that the problems created by transnational or global enterprises should be solved by the diplomats of the countries, where the main house and the subsidiaries of these transnational/global enterprises are located.

## 5.5 Religious, Social, and Ecological Attitudes

Asked for their opinion about a One-World-Religion, an overwhelming majority of the participants showed an amazing openness for this option. In fact, 73 % of the respondents conceded, that a One-World religion might eventually lead to more tolerance and to the elimination of religious conflicts between people from different religions. An even higher percentage of respondents (75 %) would generally tolerate the existence of a One-World religion, although not all of them would be ready to join a One-World religion themselves. Merely 13 % considered a world religion as dangerous, arguing, that it might be imposed on people of different beliefs. Only a relatively small percentage of the respondents (11 %) felt offended and hurt by the very idea to think of a One-World-Religion. Concerning the question how the dilemma between a One-World-Religion, possibly imposed on people all over the globe versus the risk of military religious conflicts between different religions might be solved, 28 % of the respondents conceded, that a reasonable compromise between these two extremes might be a cultural exchange between different religions (Islam, Christian religion, Jewish religion, Hinduism, Buddhism etc.).

This openness towards religious tolerance by a group of survey participants, whose overwhelming majority (nearly 87 %) consisted of male Muslims, clearly disproves the blatant clichés of the alleged narrow-mindedness of male Muslims as frequently insinuated by a significant part of the mass media. Actually, over 28 % of the survey participants stated to be sensitized towards the risks of religious intolerance due to their awareness of the existence of sworn statements filed in the Federal Court revealing, that the Christian founder of the private army Blackwater alias Academi (Ukman 2011), a Christian fundamentalist, launched a crusade to eliminate Muslims and Islam. These claims were indeed confirmed by credible internet sources (The Economist 2009; PoliticsForum.Org 2012; Scahill 2009).

Even more amazing with view to the fact that 87 % of the survey participants were male Muslims was their openness regarding gender equity. Fifty-two percent of the respondents stated, that men and women were able to combine career and family and expressed the explicit wish, that a married couple should ideally share their tasks by each of them working part-time and each of them caring about the family. Seventeen percent of the participants stated, that men and women had indeed the same rights and should make full use of them. They expressly encouraged women to study at university and work in any profession, for which they were qualified while possibly renouncing marriage and children in favor of challenging careers and stated that women can even be brilliant in typically male activities, e.g. in leading positions in military. Only 15 % of the respondents stated, that gender

equality was a mad idea of degenerated societies, because men and women were different by nature and that, due to these natural differences, women should definitely focus on child-bearing and caring about their families, whereas men were born to work and to fight. Nevertheless, even this ultra-conservative group of respondents conceded, that men and women must definitely be equally respected in spite of having different duties in their opinion. Four percent of the more conservative participants conceded, that, although men and women were different, women might go to university, but should afterwards focus on child-bearing and caring about their family and only go to work in case they stay unmarried and childless or in case that their husbands get invalid or die.

Asked for their idea about ultra-modern issues, e.g. gender-mainstreaming and state day-care facilities for children, enabling men and women to work full-time, 11 % of the participants stated, that, while gender equality was desirable, gender mainstreaming was dangerous – especially if imposed on people high-handedly and if children were rather educated by the state than by their families, which was especially risky in fascist states in their opinion.

Questioned about their ranking of ecological problems, 100 % of the respondents ranked water security on place 1 of the environmental problems. Ninety-eight percent ranked food security, 94 % energy security, 89 % biosphere protection, 84 % atmosphere protection by defending against hostile geo-engineering (artificial weather modification), 60 % atmosphere protection by reduction of greenhouse emissions, and 54 % the reduction of toxic emissions by industry and traffic among the most urgent ecological problems.

## 5.6 Conclusion

The survey revealed that the situation in Libya before and after the Arabian spring partly deviates from most reports in the mass media and that many issues, e.g. the Benghazi attacks or the origin of Al-Kayiedah', are depicted in a wrong or misleading way in most media reports. Apparently, the Arabian spring started as a grass-root movement, but was later on hijacked by transnational entities under foreign leadership in favor of imperialist agendas.

The key drivers for the Arabian spring were not human right violations in Libya, but dissatisfaction about the employment situation, corrupt governments, and the wrong people in high places, thus more or less the same problems about which citizens in Western industrialized countries, e.g. in the U.S. France, Germany, Spain, and Greece etc., equally complain. Furthermore, the high level of religious tolerance and the attitude in favor of gender equality among educated Muslims of the younger and middle-aged generation was very high – possibly higher than that of some narrow-minded fundamentalists from some other religions, e.g. self-confessing reactionary crusaders, who might learn religious tolerance from enlightened and educated modern Muslims. The attitude of the participants in political matters showed that democratic and republic forms of state seem to be largely preferred among Libya's educated younger population. Regarding political-military problems,



such as the interference of foreign intelligence or Organized Crime into a country's politics, the overwhelming majority of participants rather voted in favor of diplomatic solutions. These results might be due to the unusually high academic, intellectual, and professional level of the majority of participants in this survey in Libya.

Solely in the field of global banking and global business, the majority of participants displayed a rather strict attitude towards taking efficient measures, e.g. legal regulation, to deal with the grievances of globalization. Regarding ecological issues, the participants showed a higher awareness about important issues like the hostile use of weather modification than some people in seemingly well-informed and enlightened Western countries.

In sum, the mindset of Libya's educated population is easily compatible with the mentality and general attitude of educated people in Western countries. Merely their mentality regarding economic affairs deviates from the prevailing attitude in Western countries – something, which should be respected with view to the requirement for diversity and tolerance in a multi-cultural planetary and open-minded society as the one envisioned for the NSP scenario.

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# Chapter 6

## Sustainable Strategies for Economic Transitions in Malaysia

**Datuk Amir Hussin Bin Baharuddin**

**Abstract** This chapter will analyse the three basic elements of economic sustainability in Malaysia, i.e. the socio-economic policies, democratization of housing and education, and mobilizing the “trust funds” that are pro-poor. A historical overview in the first part of the chapter is supposed to help the reader to get some idea about the many transitions Malaysia underwent throughout its history. As shall be explained, Malaysia was able to utilize western ideas and models since its independence. Later on, in the 1980s, Malaysia employed the Look East Policy towards the Japanese humanistic model of Japan’s work style. Beyond the 1990s and certainly beyond 2000, China’s economy seems to influence the Malaysian counterpart. Finally, Malaysia employed a uniquely designed formula to manage her transitions. The stability of the government and the visions of a country’s leaders play a crucial role in managing transitions successfully and in ensuring the sustainability of the economy. A list of strategies will be based on the lessons learnt from Malaysia’s transitions, before arriving at the conclusion that the Malaysian model would be useful for many developing countries, especially those with the British colonial background and natural resources.

**Keywords** Economic transitions • Sustainability and entrepreneurship • Trust funds • Income distribution • Minutemen

### 6.1 Introduction

This chapter will shortly summarize Malaysia’s history as well as analyse the strategies and short term tactical moves employed by Malaysia in managing its economic transitions since its independence in 1957. Most Southeast Asian countries, except from Thailand, were colonized by Europeans, such as the English, the French and the Dutch. Malaysia was colonized by the British since 1786, with the first official settlement of Penang by Francis Light. Later on, the British reinforced their

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colonization of Malaysia via the Treaty of Pangkor 1874, where only the Perak Sultanate received a British “advisor”. The original idea of the British was to exploit the resources of Malaysia starting from spices and later on, tin mining. After rubber was brought in by Sir Henry Wickham with seed from the Brazilian Amazon, the oil palm was brought in from Nigeria. Tin, rubber, and oil palm generated the major income from economic resources for the British home economy, until the Federation of Malaya received their independence from the British in 1957. In 1963, Singapore, North Borneo (now Sabah), and Sarawak joined the Federation of Malaya to make up Malaysia. In 1965, Singapore opted out of Malaysia to form the Republic of Singapore; another separate nation, Malaya inherited the agricultural economy with tin, rubber, and oil palm exports in 1957. The people resided in the rural area with nearly zero industry and very little service. The basic structure of the economy was rural and agricultural with a narrow agriculture export base. The country has three major races, Malay-Bumiputra, Chinese, and Indians with unique and specific economic activity engagements, places of residence, and professional positions. There was an acceptable “Status quo social contract” and Malaysia needed very little economic growth at that time. Growth and modernization were not so important back then. Malaysians were satisfied with the state of affairs until an event suddenly occurred on May 13th 1969 that changed almost everything. What followed in Malaysia, was a change from a multiracial rural-agricultural economy to an export-oriented economy with manufacturing and service orientation through deliberate economic and political policies and strategies. Most of those events led to the sustainable economy of 2014 – with the capability of adjusting and adapting fast to the global economic disturbances in a rapid and flexible manner, especially since 1981. By the time, when the US economy and the world economy were shaken badly by the financial crisis in 2008, Malaysia was perhaps the most robust and resilient economy with external and internal contributors. The main measures that managed these transitions smoothly and safely, were the formulation of the public policies, the design of the 5-year plan, and the tactical annual National Budgets of Malaysia. These three elements were based on the visions of leaders and the synergetic acceptance of those visions by the loyal population and perhaps appropriate policies-institutions setting the right priorities in the infrastructural development such as roads, communication, schools, ports, and airports (see Table 6.1 for guide to changes). More than 20 years went by without any major events since Malaysia’s independence. Then in 1980, things changed rapidly for Malaysia. Thanks to the 35 public policies and many innovations by the country’s leadership, which were not gimmicks or mere slogans, Malaysia and her 29 million people, is considered top 20 country of the world today. The data from the various official sources indicated these points. Before we continue, the following timeline shall highlight what Malaysia went through as a nation:

**Table 6.1** Timeline of major socioeconomic events that affects transitions in Malaysia

Year	Events
630	Kedah State was created.
1136	State of Kedah, Malaysia, started to have Muslim Sultans/Rulers. Previous to 1136 AD they were non-muslim rulers.
1410	The State of Malacca, Malaysia, founded by Parameswara, the Hindu Prince from Palembang, who later on converted to Islam.
1511	Malacca fell to the Portuguese, the beginning of the European power in Malaysia. The Portuguese were going for 3 Gs: Gold, Gospel, and Glory.
1786	Penang was started with British settlement by Captain Sir Francis Light.
1800	Province Wellesley rented by the British from the Sultan of Kedah.
1874	Treaty of Pangkor – the British enter as advisors to Malay rulers
1888	Rubber brought into Malaya from London Botanical Garden
1945	End of World War II
1946	Malaysian Union, suggested to Malaysians by the British.
1948	The start of Malaysian Emergency due to communist insurgents.
1952	The Korean war, heavy communist insurgency in Malaya.
1955	First Election in Malaya, Kuala Langat declared as Malaya first “white area”, free from communist terrorists.
1957	Independence on the 31st of August 1957, brought by the Alliance of United Malay National Organization (UMNO), Malaya Chinese Association (MCA), and the Malaya Indian Congress (MIC), a party of three components formed before the election.
1958	Malay students from Malay schools in rural Malaya transferred to English schools to improve Malay education and improve English speaking skills of Malays.
1963	Formation of Malaysia with Singapore, Sarawak and Sabah (independence trough Malaysia).
1965	Singapore opted out of Malaysia as a Republic under Lee Kuan Yew.
1967	ASEAN was established.
1969	Third General Election, May 13th 1969 that left hundreds dead, and the beginning of the New Economic Policy (NEP). Rukun Negara and New Economic Policy announcements were the major events in place.
1970	Tun Abdul Razak became the second Prime Minister. New Economic Policy (NEP) suggested to solve imbalances among races.
1971	Malaysia introduced the New Economic Policy, to expire in 1990 in Third Malaysia Plan.
1974	The National Petroleum Company PETRONAS was formed (replaced foreigners for oil pumping). This had enormous positive employment and Dollars effects on citizens. Anwar Ibrahim detained for 22 months
1975	Vietnam war ended and one million boat people arrived in the Malaysia Kelantan – Terrengganu – Pahang coasts. Foreign elements entered our land and minds.
1976	Tun Abdul Razak passed away. His son Najib Razak (at 23 then) was soon elected to parliament. Tun Hussein Onn made third Prime Minister
1980	Amanah Saham Nasional (ASN) launched.
1981	Mahathir Mohammad became the fourth Prime Minister of Malaysia.

(continued)

**Table 6.1** (continued)

Year	Events
1982	McDonalds, the US fast food giant began operation in Malaysia.
1983	Mahathir Mohammad initiated PROTON, the national car project, production of the first model SAGA began in 1985 in association with Mitsubishi, Japan – the demand for better road and highways started. Malaysia created the Islamic Banking Law to set up Bank Islam. Takaful Malaysia, an Islamic Insurance company, was set up in 1984
1984	Islamic Insurance – Takaful Malaysia set up.
1985	Mahathir Muhammad and the Malaysian Government conceived the idea of a national highway PLUS.
1986	Malaysia passed a law that prohibited the publication of malicious allegations against the government.
1988	Construction of North-south Highway began.
1989	The APEC forum started by Australia with 12 member countries.
1990	The NEP, started in 1970, would have ended by 1990. NEP which ushered the affirmative action for Malays had begun in 1970, followed by the National Development Policy NDP in 1991–1998, and later on by the National Vision Policy 1998–2020 which spearheaded many changes including Malaysia as a high income country. Malaysia's poverty stood at 22.8 % at this time.
1992	Panama Disease had caught Malaysia's banana industry and wiped out the Cavendish variety of banana plantations of Malaysia. This disease had earlier attacked the Gros Mitchel variety of banana.
1994	Malaysia engaged in a tight monetary policy as the economy was growing too fast. The North – South Highway PLUS was completed with 770 km (520 miles) of roads from Bukit Kayu Hitam, Thailand border to Singapore.
1996	Issues raised to block the Hydroelectric Project at Bakun, Sarawak. Activists stalled the \$6.02 billion construction project; a court order stopped the construction temporarily. The Pergau Hydroelectric dam in Kelantan (which was supported by British aid) was commissioned.
1997	Prime Minister Mahathir Mohammad visited the Silicon Valley and started the idea of a new multimedia super corridor at Cyberjaya, linked to a new airport (KLIA) and the new capital city Putrajaya, linked by a "rapid transit" with Kuala Lumpur and the PLUS networking. There was a massive capital investment and construction project. Burma was allowed to be an ASEAN member state. American billionaire George Soros vilified by PM Mahathir Mohammad as the cause of the 1997 financial crisis. Asian currencies dived in foreign exchange markets. Mahathir had suggested earlier that "we do away with trading currency like a commodity".
1998	In September, the former Finance Minister ended his duty few days after the independence day Penang Celebration on 31 August 1998.
1999	Malaysia started moving government departments to Putrajaya.
2000	Anwar Ibrahim convicted to a year jail.
2003	Mahathir Mohammad physically resigned as the fourth Prime Minister to make way for Abdullah Badawi on October 31st 2003.
2004	Jan 7th, Najib Razak was named Malaysia Deputy Prime Minister.
2008	New General Election 12 badly damaged Abdullah Ahmad Badawi

(continued)

**Table 6.1** (continued)

Year	Events
2009	April 2nd, Abdullah Ahmad Badawi resigned from PM office (after 5 ½ years of reign) to make way for Najib Razak to handle the economy that was close to recession, to handle the country's deep racial division, and to revive the Malay party (UMNO – BN).
	April 4th, Najib Razak became the sixth Prime Minister to lead the PRU-13 general election in 2013.
2013	Malaysia held the 13th general election in May 2013. The ruling coalition held on simple majority in parliament, holding to all states previously held plus Kedah. Kelantan, Penang and Selangor remained in opposition hands as state governments.
2014	The Barisan National (BN) candidate won a by-election in Teluk Intan (a Gerakan win heading to reinstatements of 3 new Chinese Ministers and 3 Deputy Ministers into the cabinet). The cabinet get larger, for a bigger array of jobs and agenda to sustain the economy in definite transition towards year 2020.

Source: Various plans and established timeline in my earlier papers

## 6.2 Determinants of Economic Sustainability in Malaysia

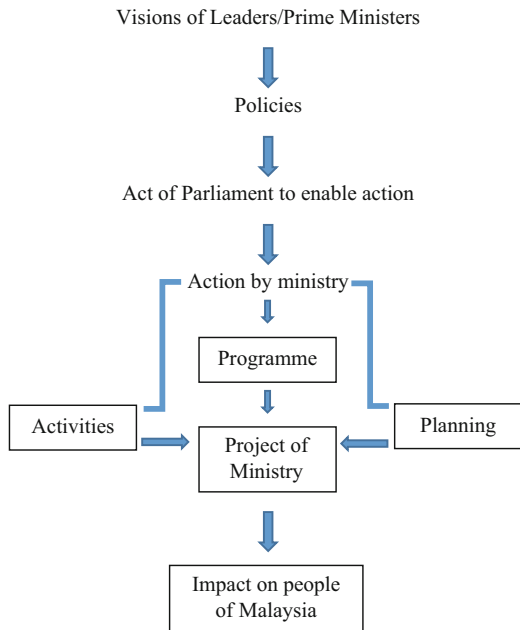
Every country is unique in its ability to survive economic, social, and political crises. Nevertheless, some factors are relevant for every country:

- The attitude of the citizens and non-governmental organizations (NGO).
- The vision and sincerity of political leaders in handling the oppositions.
- The transparency of political and administrative procedures.
- The integrity of public servants and private sector workers.
- The efficacy of the law, legislations, and taxation system.
- The extent of involvement of the “small people” in economics, social, and political matters, and the distribution of assets and wealth.
- Efficiency of enterprises and agencies administration.
- Accountability of public servants and institutions.
- Productivity of public and private investments.
- Continuity of the nation's presidents and premiers.
- The interference of the international organizations, rulers, and the international game playing of the superpowers.
- The knowledge of all people and their reading culture.

These factors and other considerations depend, to some extent, on the people. Sustainability requires the participation, involvement, protection, and the guarantees of people at large. The government system alone will not make strategies sustainable. Strategies must be conceived, formulated, executed, and evaluated well by the political leaders, who should have the interest of the common people or the majority of the population at heart, when formulating national policies, plans and agendas. Malaysia had good leaders for the last 60 years. We had been able to acquire some of the best advisors as early as in the mid 1960s. The ruling party is a

multi-racial coalition of Malays, Chinese, Indians, and minority ethnics. Before 1974, the party was Alliance (Perikatan). Since 1974, the coalition is named National Front (Barisan Nasional), a party that runs the economic and other affairs for the people. The country is a parliamentary democracy and constitutional monarchy. BN is a ruling party that has lasted longer than the Japanese LDP and India's Congress Party. Malaysia's ruling party has been in the country's leadership for more than 58 years. This continuity has given Malaysia more advantages than most other countries. Transitions are better managed by governments with long tenure. Sustainability would be a product of a continuous government. Transition in the ruling party's leadership is also important. The Malaysian ruling party Barisan Nasional had been led by the Alliance of United Malay National Organization (UMNO). The UMNO President, Vice-president, and deputy president provided stability and changed hands in an orderly manner. Their continuous and orderly changes helped the government to manage the Malaysian economy in terms of sustainability of strategies, even those that went beyond two planning periods. The thoughts and vision had reinforced the ways Malaysia administers and implements project programs. Schematically we see a clear path between the leadership's vision and the people's interests (Fig. 6.1).

**Fig. 6.1** The relationship of leaders visions, planning, economic activities and impact, in Malaysia (Source: Visualised and simplified by Author from briefings of EPU officers)



### 6.3 The Malaysian Economy Way

Over the years of implementing policies to the socioeconomic targets and to ensure sustainability, we anchor our faith on the people. We lacked this previously before the 1969 riots. For the first 5 years of the New Economic Policy (NEP), we were filling gaps and not getting the results towards equity, equality and growth together. The NEP has three main objectives with unlimited strategies:

- To achieve national unity.
- To eradicate poverty regardless of race.
- To restructure society in a way which reflects the Malaysian society, ensuring that no race is associated with the geography of residents, economic activity, profession, or origin.

Malaysia was still thumbing her way out of the memory of the racial tensions of 1969. To encourage the NEP to work, the leaders worked hard to develop the Acts of parliament, to draw the action plan and to set the direction. The idea is to get a real solution working with little disturbance from gossips and speculations of the people and foreign agents. We revived the previous Acts and developed new ones.

Among them, the noted ones are:

- The Internal Security Act 1948, 1960
- The Seditious Act.
- The Official Secret Acts. (to safe guard government strategic and tactical secrets)

To this end, the USA being so engrossed with human rights, freedom, and perhaps democracy and free enterprises, saw no abuse. Since Malaysia is an ex-colony of the British, the basic ideas of these acts, passed by the parliament, are those deployed by the British at their appropriate occasions, not beyond that. We apply them as cautiously as necessary, being fearful of the UN provisions and other interference from Western superpowers. In the 1960s and 1970s, especially before USA lost Vietnam to the Viet Cong in August 1975, whatever we do to protect our democracy would be welcomed by the UK, USA and even endorsed by the UN, in the name of democratic idealism, and to stop the ASIAN domino, resulting from communist insurgents contributed by the Soviet Union (USSR) and the People's Republic of China (PRC) doctrines and ideals. The period 1957 through 1969 was a period of trials with conventional approaches to development regarding Post-independence economic structure and racial inequalities. In the case of Malaysia, the group that needs uplifts and management in transition periods is the majority Malay-Bumiputra group, making up 68 % of the population. This lack of foresight has led to the May 13, 1969 incidents, i.e. major racial riots because of the failure to address ethnic inequities in the year since 1957.



The period 1970–1990 was the period of New Economic Policy, when the three objectives of NEP were embedded in all efforts of the government to eradicate poverty, to increase household incomes that effected all spin-offs (those of the 1980s, the 1990s and those beyond the year 2000 AD), to improve the distribution of wealth/asset ownership, to educate the Malays, and to assist problematic races like the Indians and the aboriginal people (without religion preference). The 1970–1990 formula was good but did not reach many targets, especially (not) the 30 % equity ownership in the publicly listed companies and national wealth and the 30 % targets in all professional fields like accountants, engineers, architects, medical doctors, dentists etc. The NEP of 1970–1990 was extended to 2020 under the National Vision Policy 2020. Under the NEP, there was neither enough time to accomplish too many things nor to create the optimum condition for equitable distribution of wealth, income, housing-construction, educational accessibility, and the income power to buy shares of public listed companies. This led to various efforts in the gigantic steps of the Amanah Saham strategies, the creation of government-linked companies (GLC), forwarded budgets, and the “money from the little men”. This money was gradually liberated to all Malaysians by Mahathir Mohammad from 1998 to 2003. He created a number of “strategic minutemen” from all races, which we cannot name as they are not public knowledge. The idea was that these “Minutemen” will lead a group directly and assist the weak ones or “weaklings” in subsequent stages and “not just another crony” as alleged by the West. Regardless of any inquiries, there are things that work out, whereas others fell apart in a transition society unlike Malaysia. This phenomenon is also true in US, Japan as well as in the UK and other European countries. This is the usual nature of human character rather than political patronage or intelligence. The period of Prime Minister Najib Tun Razak added even more dimensions to sustainability and transitions since April 4th 2009. The sixth Prime Minister was trying to create a new image, reconciliation and to enhance Malaysian economic frontiers via the *ONE MALAYSIA concept*. He cared for the poor, the small and medium firms (SME), the lone income, and the Middle income groups, while enhancing the big corporations. Then came the “lost” MH 370 affairs, distracting Malaysia’s will to sustain and tame the various transitions on the domestic fronts as well as the global transitions coming from ASEAN, APEC, China, India, Europe North America and the Arab States. We do not have the complete knowledge yet on strategies to sustain our economy in transition scenarios. Nobody has the answers, except perhaps China. Malaysia had managed well with 34 good policies, infrastructures, continuity of government (Alliance and the BN), citizens of reasonably good character, reasonably honest and ethical leaders, stable currency, peaceful situations, and a good set of climate and natural resources. We were able to mobilise the “small men money”, to involve them in big projects and corporations and cared for the poor and the handicapped in our own little way.

Time and the sequencing of strategies and projects brought us successes through what Samuelson called the *multiplier-accelerator effects*. Our institutions, set of Ministers, and people had created various synergies domestically. We would not have done well if our people had decided to sabotage themselves and their own people with endless demonstrations, street clashes, and perhaps civil wars. Such situations will not enhance anybody nor develop mankind at large. A warring entity will waste time and properties, with enormous loss of future and potentials. To sustain we need our own people. Japan and South Korea are good examples. China is another example with 1.3 billion people. Like everyone else, Malaysia learns from everywhere to get their sustainable strategies in enhancing their economy in transition periods. The answers to those who want to grow, develop, and prosper is free. They are everywhere: Harness them, understand them, and use them for free. Do not take everything Adjust to the need of your people and your country. If you feel bad, apply the virtues of your religions and avoid the vices of men. You will get the answer, though some of them need time of reconciliation. Start small. Get rid of poverty.

Mobilise “small men money” via trusted or created trusts or mutual funds. Get your construction via roads, houses, and buildings going! Make sure democracy exists in house ownership and access to education. Get some monitoring going and use some controls. Free markets can hurt people if some unethical items are developed. Play on plan and the annual national budgets to adjust and to review. We can surely say that economic sustainability in a transition economy can be done by willing societies.

#### **6.4 Towards a Sustainable Economy for All. Some Preliminary Strategies**

- Get rid of poverty.
- Do not allow the Gini Coefficient to deteriorate.
- Get more people involved in the economy and make sure that only few people rely on income support, subsidies, and the food stamp sector.
- Do not see the rich get richer and the poor get poorer as a pro sustainability.
- Get more people in point 3 above to save in their personally preferred, modest way. Match these funds with government sponsored soft loans to small and medium firms.
- Make sure SME are supported.
- Make sure cooperatives are independent and operational.
- Mobilize small people fund in unit trusts and assured or secured funds.

- Do not be one of those Foreign Direct Investment(FD) grantees for outflow of funds, only allow this when absolutely necessary.
- Mobilize small scale talents. Help them to use their assets well. Do not allow idle assets or assets to be taken away by big corporations. The Nation must support all people and not just corporate leaders.
- Recognize small people’s contributions in free elections. Help them prosper and spend on consumer goods, while saving small funds in unit trusts.
- Secure their homes and family; let them feel good about the economy. Do not let them be exploited unattended by the democratic government they elected.
- Make sure all families have at least one member graduated from a university and/ or have an executive job as laid down in the Tun Razak Doctrine in 1957 (Baharuddin 2002).
- Make sure home, cars and costs of living are affordable. Control demand and supply situations; at least get to know them.
- Minimum wage may not be necessary. Prices for food and basics must be kept low. House prices must reflect the actual value and Malaysian affordability. Working must make sense.

## 6.5 Conclusion

In conclusion, it is obvious that the continuity of a government is very important for the sustainability of the economic enterprises. Visions of a leader and the length of his tenure matters a lot (22 years for Mahathir Mohammad and only 5 years for the third Prime Minister Tun Hussein Onn). Malaysia enjoys these three factors. The will to try an agenda, the planning process and the skill of articulating an agenda to the people also played a significant role. The mobilisation of domestic “small savings” had proven successful for Malaysia. Generally, Malaysia had the “chemistry” for a success in sustaining the economy even throughout all transitions within the 58 years period since its independence in 1957. The New Economic Model for Malaysia 2010 (National Economic Advisory Council 2009) initiated by Premier Najib Tun Razak was a manifestation of this valid experience as it targeted high income, inclusiveness, and sustainability. The Malaysian model would be useful for many developing countries, especially those with the British colonial background and natural resources.

### 6.6 Appendix: Figures and Tables

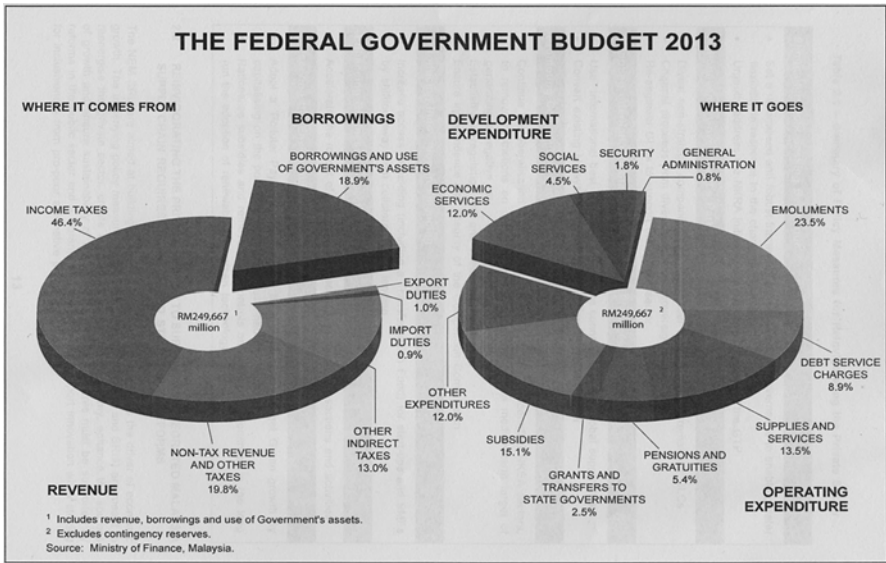


Fig. 6.2 The Federal Government Budget 2013 (Source: Malaysia Economic Planning Unit (2010) Economic Report, 2012–2013)

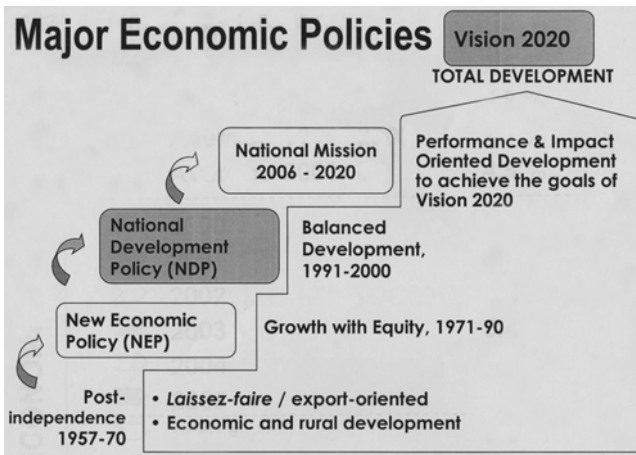


Fig. 6.3 Major Economic Policies Vision 2020 (Source: Malaysia Economic Planning Unit (2010) Economic Planning Unit Briefing by the Director general)

**Table 6.2** Number of students benefiting education in private and public institutions of higher learning

	IPTA (public)	IPTS (private)
Certificate	–	68,442
Diploma	67,628	123,937
Bachelors	223,968	124,071
Master	30,347	6,477
PhD	8,752	860
	For the country's R+D+ Real trainers provider	Encouraged by money making
Total	331,752	323,787

Source: Ministry of Higher Education (MOHE) (2012)

**Table 6.3** Malaysia's economic structure

	1990 (%)	2005 (%)
Services	46.8	53.8%
Manufactures	24.6	28.4%
Agriculture	16.3	8.4%
Mining	9.4	6.7
Construction	3.5	2.7

Source: Component from various Malaysia Economic Report % of GDP, from Chart 3, P. 7

**Table 6.4** Malaysia's self-sufficiency levels in food commodities 2000–2010 (%)

Commodity	2000	2005	2010
Rice	70	72	90
Fruits	138	117	138
Vegetables	95	74	108
Fisheries	86	91	104
Beef	15	23	28
Mutton	6	8	10
Poultry	113	121	122
Eggs	116	113	115
Pork	100	107	132
Milk	3	5	5

Source: Malaysia Economic Planning Unit (2010), Ministry of Agriculture Third National Agricultural Policy 1998–2010

**Table 6.5** WAWASAN 2020

WAWASAN 2020

1

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A Brief Overview
Prepared By: Sara Irina binti Md Rijaluddin, January 2012

*“.....living in a society that is democratic, liberal and tolerant, caring, economically just and equitable, progressive and prosperous.....”*

*Tun Dr Mahathir Mohammad*

### Summary

- Established by former Prime Minister, Tun Dr Mahathir Mohamad during the tabling of the 6<sup>th</sup> Malaysian Plan in 1991.
- Nine challenges<sup>1</sup> were set out to meet the targets of Vision 2020.
- Aim: *“By the year 2020, Malaysia can be a united nation, with a confident Malaysian society, infused by strong moral and ethical values, living in a society that is democratic, liberal and tolerant, caring, economically just and equitable, progressive and prosperous, and in full possession of an economy that is competitive, dynamic, robust and resilient”* – Tun Dr Mahathir Mohammad  
*(Source: “Malaysia as a Fully Developed Country”, Office of the Prime Minister of Malaysia)*

### The Nine Strategic Challenges

- Challenge 1: Establishing a united Malaysian nation made up of one Bangsa Malaysia (Malaysian Race).*
- Challenge 2: Creating a psychologically liberated, secure and developed Malaysian society.*
- Challenge 3: Fostering and developing a mature democratic society.*
- Challenge 4: Establishing a fully moral and ethical society.*
- Challenge 5: Establishing a matured liberal and tolerant society.*
- Challenge 6: Establishing a scientific and progressive society.*
- Challenge 7: Establishing a fully caring society.*
- Challenge 8: Ensuring an economically just society, in which there is a fair and equitable distribution of the wealth of the nation.*
- Challenge 9: Establishing a prosperous society with an economy that is fully competitive, dynamic, robust and resilient.*

*(Source: “The Way Forward”, Office of the Prime Minister of Malaysia)*

### After Tun Mahathir – Other Policies towards Vision 2020

**Tun Abdullah Ahmad Badawi**


- “Islam Hadhari” – strengthening Vision 2020 by promoting the nation’s modernization with a balanced awareness and progress in humanity and spirituality. There was also a shift towards human capital development and transparency.
- Economic spheres designed to attract foreign and local investments, alongside a spurring a nationwide growth - Iskandar Malaysia, Northern Corridor Economic Region, Sabah Development Corridor and Sarawak Corridor of Renewable Energy.
- Liberalisation of rules to encourage foreign investment in properties and banking.
- Removing the RM3.80 to one dollar peg, hence allowing floating currency trading and increased competitiveness.
- Incentives for new SMEs.

*(Sources: Institute of Islamic Understanding Malaysia, The Edge Malaysia)*

**Dato’ Seri Najib Tun Abdul Razak**

- “1Malaysia” – stresses upon national unity and ethnic tolerance. The 2010 values of 1Malaysia as articulated are perseverance, a culture of excellence, acceptance, loyalty, education, humility, integrity, and meritocracy.
- “New Economic Model” – “High income (to double Malaysia’s income per capita from RM23 100 to RM 49 500), sustainability and inclusiveness”.
- “GLC Transformation Programme” - Part of an ongoing effort by the Government to drive development. The launch saw the introduction of the KPI. (Key Performance Indicators), board composition initiatives, the revamp of Khazanah Nasional Bhd, as well as changes in the management of a number of GLCs.
- “Economic Transformation Plan” (ETP) – a comprehensive effort involving two integral components represented by the eight Strategic Reform Initiatives (SRIs) and the 12 National Key Economic Areas (NKEAs).

*(Sources: National Economic Advisory Council, Office of the Prime Minister of Malaysia, 1Malaysia)*



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Source: Baharuddin (2013)

**Table 6.6** Debate: with 8 years remaining, is Malaysia on track to fulfill Vision 2020?

Yes	No
<p><b>Economy</b></p> <p>In the 10 years before the economic turmoil of 1997–1998, Malaysia was growing at a higher percentage than the 7 % growth target needed to double per capita income every 10 years for 30 years. Even if growth for the next 10 years averages slightly less than 7 %, Malaysia would still be on target.</p> <p>In 2010, the World Bank listed Malaysia at No. 36 in ranking of countries by GDP.</p> <p>New Economic Policy proves to be in favor of the indigenous people as they now have 20 % of economic wealth and many have university qualifications.</p> <p>A general perception of strong optimism for the Malaysian economy.</p> <p><i>(Sources: World Bank. Central Bank of Malaysia, The Malaysian Insider)</i></p>	<p><b>Economy</b></p> <p>In order to achieve Vision 2020, the nation required an annual growth of 7 % (in real terms) over the toce periods (1990–2020). Between 1988 and 1997, Malaysia’s GDP averaged 7.7 %. Between 1999 and 2009, it slowed down to an average of 5.2 %. In 2008, it was at 4.7 %, while in 2009, GDP contracted to –1.7 %. (Take into account that the country had to face two major financial crisis (in 1997–1998 and in 2009). The 2011 GDP forecast is predicted to be between 4.7 and 5.2 %.However, the country needs to grow by 8 % after 2009, to still reach Vision 2020.</p> <p>The amount of debt for 2011 reached RM56 billion, representing 54.3 % of the country’s GDP. The national limit is stated to be 55 %, set by the 1983 Funding Act and the 1959 Loan (Local) Act.</p> <p>Lack of a sustainable long-term economic plan in Budget 2012 such as measures to reduce the widening income gap and the “middle income trap”.</p> <p><i>(Sources: Trading Economics, The Star, Bloomberg,)</i></p>
<p><b>Politics</b></p> <p>Relative stability and a functioning constitutional monarchy with a democratically elected government accountable to the citizens.</p>	<p><b>Politics</b></p> <p>The need for immediate reforms demonstrated by Bersih 2.0.</p>

<p>A peaceful, multiracial country</p> <p>Ranked No. 19 in Global Peace Index 2011 (indicating peaceful internal and external relations).</p> <p>Ranked No. 39 in Globalization Index 2011-proving Malaysia's global connectivity, integration and interdependence in the economic sphere, and awareness in social, technological, cultural, political, and ecological changes. (Source: <i>BBC</i>)</p>	<p>'Ketuanan Melayu' –claims of institutionalised racism leading to lack of meritocracy and unequal treatment to citizens</p> <p>The rise of political issues such as UUCA</p> <p>MAAC and SPRM under scrutiny for their transparency and accountability</p> <p>Very limited progress in human rights demonstrated by controversial laws such as the ISA, police abuse and lack of protection for 300,000 domestic migrant workers. (Sources: <i>Human Rights Watch 2011 Report, The Malaysian Insider</i>)</p>
<p><b>Social</b></p> <p>Malaysia is ranked at No. 61 in the Human Development Index within the United Nations Development Report 2011 (United Nations 2011), categorized as “High” human index.</p> <p>A very popular tourist attraction – received almost 25 million visitors in 2011</p> <p>Kuala Lumpur is an Alpha-ranked Global city alongside Beijing, Washington, Brussels and Milan. (Sources: <i>The Global City, Tourism Malaysia</i>)</p> <p>Source: Baharuddin (2013)</p>	<p><b>Social</b></p> <p>Ethnic relation are still unstable. Merdeka Center for Opinion Research's Ethic Relations Survey 2011 Report discovers that only 39 % of the respondents identify themselves as 'Malaysians' first. On perceptions of unity, 44 % felt that it was 'superficial unity'. However, 96 % states that inter-ethnic relations are important.</p> <p>Lack of freedom of speech – Malaysia ranks at No 141 in the Press Freedom Index 2010.</p> <p>Education – lack of a unified national system, conflicts in the medium of instruction and racial quotas for university admissions. (Sources: <i>Education in Malaysia, Ministry of Education</i>)</p>



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# Chapter 7

## Lessons Learnt from History: Analysis of Past Transitions and Transformations

**Odile Schwarz-Herion**

**Abstract** Although the GSG depicts future global scenarios, similar transformations and transitions including barbarization and reform scenarios as well as the creation of new paradigms could be observed over the course of the past five centuries. Such changes do not always happen purely accidentally, but are often artificially triggered or steered by ambitious and influential individuals, dynasties, and powerful entities. Looking back in history, dramatic transformations in several parts of the globe were mainly influenced by Western powers. Sometimes, those who have the networks and the money to steer transformations have studied history profoundly enough to provoke certain patterns. Frequently, invisible driving forces and players hide behind visible transformations; transformations themselves are sometimes largely invisible, carefully hidden from the public eye. Notwithstanding, there is a certain dynamics in human relations and reactions, partly depending from cultural characteristics, so that envisioned transformations can succeed, fail, or end up with a compromise. In many cases, hidden power players steered and still steer transformations and transitions by economic means.

**Keywords** Reactionary movements • Holy Alliance • Nationalism • Imperialism • Federal Reserve • Bolshevik Revolution • Military-industrial complex • Stay-Behind-Armies • Economic Hit Men (EHM)

The World is governed by very different personages from what is imagined by those who are not behind the scenes. (Disraeli 1844).

Having this statement of Benjamin Disraeli, England's first Jewish Prime Minister, in mind, this chapter will show how politics and the economy have often been influenced from behind the scenes and how some transformations have been completely hidden from the public eye. Since the coverage of all significant historical changes would go beyond the scope of this book, only some representative examples of

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significant transitions and transformations are chosen to shed some light on hidden movers and agents – mainly from Western history as especially Western powers have shaped human history since the late middle-ages and even more so since 1500.

## **7.1 Drivers and Consequences of Representative Transformations and Transitions**

### ***7.1.1 Drivers and Consequences of Reformation and Counter-Reformation***

The reformation was initiated by a person with innovative ideas and implemented step by step by reasonable strategies. The visible driving forces behind the reformation were Luther's anger about obvious grievances in the Catholic Church (especially the abuse of centralized power, i.e., the Primate of the Pope) and the wide distribution of his innovative ideas in programmatic pamphlets. The desire of Germany's Sovereigns to optimize their power by becoming independent from the Pope was additionally convenient. All drivers together created synergy effects, culminating in a successful fight of the protestants against the power abuse of the Church Establishment and its worldly allies, shaping a transformation towards a new paradigm by removing the religious monopoly of the Catholic Church in Western countries, and finally leading to the creation of a new confession offering the possibility to choose between two different confessions. Although the lower Estates, especially the peasants, didn't immediately benefit from the reformation (see Sect. 3.1), Luther's successful fight against a previously centralized power was an encouraging example for the general possibility to limit the influence and potential power abuse of a seemingly overwhelming central power.

This innovative transformation soon triggered the counter-reformation by reactionary forces, resulting into a bloody fight between Catholics and Protestants, leading to a European war lasting three decades with a spiral of violence and a breakdown of civilized life forms ("Breakdown" as variant 1 of Barbarization) which left millions of innocent civilians dead and made wide areas of Middle-Europe inhabitable as vast tracts of land got devastated. Afterwards, the gap between the privileged class (Sovereigns, high nobility, and high clergy) and the underprivileged class (the exploited peasants) (see Sect. 3.1) widened even further, thus leading to Barbarization in variant 2 ("Fortress World").

The movers behind the counter-reformation had been the Jesuits, founded by St. Ignatius who saw himself in the tradition of the crusaders, was "one of the strangest types of monk-soldier ever engendered by the Catholic World" (Paris 1983), and considered himself a "Knight of the Virgin Mary", determined to re-establish the power of the Catholic Church (Brownlee 1857). However, St. Ignatius' visions and missionary zeal as internal factors and his psychological influence on others alone might not have led to the desired results.

The military organization of the Jesuits and their acknowledgement by Pope Paul III in 1540 after they had granted him unconditional obedience, serving him as personal secret service, secret police, and army (Fülöp-Miller 1929), became important success factors facilitating the implementation of St. Ignatius' plans. Additionally to influencing the general public by sermons, the activities of the Jesuits as personal educators of young people from influential families and as confessors at courts (Goerlitz et al. 1982; Fülöp-Miller 1929) gave them the opportunity to manipulate influential persons and potential blackmailing leverage over monarchs and Princes. Nevertheless, the Jesuits did not manage to re-establish the previous power and the religious monopoly of the Catholic Church.

After some Sovereigns started to get suspicious towards the Jesuits, the Jesuits started to hide behind 1,000 masks, pretending to be Brahmans among Brahmans, protestants among protestants, scholars among scholars, etc., always adapting to the circles which they were infiltrating (Fülöp-Miller 1929). Fülöp-Miller cites some examples, e.g., a Jesuit, who infiltrated the court of the Protestant King Friedrich III of Sweden in the mask of a protestant theologian or Jesuits who married protestant monarchs to Catholic Princesses (Fülöp-Miller 1929). The Jesuits even won the confidence of Buddhists by participating in their ceremonies (Fülöp-Miller 1929).

Since the Jesuits were perceived as a threat, the Order of the Jesuits got prohibited in 1773 by Pope Clemens XIV due to pressure from several monarchs (Paris 1983; Fülöp-Miller 1929). Three years later, on May 1, 1776, the Jesuit-educated Adam Weishaupt founded the "Bavarian Illuminati", an enlightened secret society (seemingly) opposing the Jesuits who were still feared as a dangerous underground society (Paris 1983; Fülöp-Miller 1929). The Bavarian Illuminati applied the same tools as the Jesuits by spying on the members of their own order and exercising mind-control over them. Finally, the Bavarian Illuminati got also prohibited by Bavarian Royal decree in 1784 (Fülöp-Miller 1929).

According to the book "Macht und Geheimnis der Jesuiten" (Power and Secret of the Jesuits) whose content is fully acknowledged by representatives of all the major schools of thought including the Jesuits themselves (Fülöp-Miller 1929), the centuries since the establishment of the Societas Jesu (SJ) have been the most formative ones for the development of humankind (Fülöp-Miller 1929; Paris 1983). This statement holds true until today.

### ***7.1.2 Visible and Hidden Drivers and Consequences of the American and the French Revolution***

The visible driving forces behind the American War of Independence have been mentioned in Sect. 3.2. The invisible driver, however, was that in 1751 the privately controlled Bank of England took influence on the English King and Parliament to pass a law prohibiting the colonies from using their paper money ("Colonial Scrip") before passing an even harsher law in 1763. Many people in

the colonies fell into debt because they were forced to use gold and silver as a means of payment which led to debt based money in the colonies, filling them with unemployment and beggars – a phenomenon which had already existed in England, but had previously been unknown in the colonies (Tise 2010).

According to Benjamin Franklin, the colonies would generally have been ready to pay some tax on tea, if the people had not been so severely impoverished due to the bad influence of English bankers on the parliament, causing anger towards England in the North American colonies. Thomas Jefferson stated: “I believe that banking institutions are more dangerous to our liberties than standing armies. Already they have raised up a monied aristocracy that has set the government at defiance. The issuing power (of money) should be taken away from the banks and restored to the people to whom it properly belongs” (Tise 2010). So, the American Revolution was not only a revolution against the English Crown but also against the privately controlled Bank of England.

The support of the colonies by France and other loyal allies led to America’s victory. The British Crown who had wasted its money and spoilt its reputation by using enslaved mercenaries from Germany, captured with brutal methods and sold to the British Crown by some German Sovereigns (Steinmann 1857; Kinder et al. 2011), suffered a crushing defeat. The British Crown and those German Sovereigns who sold these mercenaries had been publicly criticized for this kind of inhuman slavery, among others, by the French Count Mirabeau (the later initiator of the French revolution) in leaflets and by the British parliamentarian Lord Chatham in a public speech in which he expressly motivated the Americans to fight against England in favor of human rights (Steinmann 1857). A special feature of the American War of Independence (“American Revolution”) was the fact that it was not a fight between two Sovereigns as in most other previous wars, but that a people (American colonists) fought and won a battle against a Sovereign (the British King), developing an identity of their own as a proud nation.

The inspiration by the American Revolution and the anger of all estates in France about their lack of political power were the initial drivers of the French revolution. The economic crisis due to poor harvest and state debts (Kinder et al. 2011) added to this situation (see Sect. 3.2).

Every estate had its own motive apart from the common goal to abolish the absolutism: The nobility wanted to increase its own influence, the bourgeois middle-class strived for equality and political participation, and the urban underclass as well as the peasants didn’t want to be exploited by the royal administration anymore (Bergeron et al. 1975).

The strongest agent of the revolution was the French nobility due to their hostile attitude towards the absolutism and their inspiration by the enlightenment movement (Bergeron et al. 1975). Nevertheless, nobility cooperated with the third estate (see Sect. 3.2) to establish the New France. La Fayette was at the top of the National Guard and thus at the top of Paris. The second and the third estate cooperated with each other, jointly striving for empowerment (Bergeron et al. 1975).

The French revolution passed several stages (transitions) – first arriving at a constitutional monarchy, then passing a republic, coupled with a military dictatorship (Jacobins), and finally leading to once another republic under the leadership of the *Directoire*. The most violent stage of the French Revolution was the dictatorship of the Jacobins after foreign pressure due to the Prussian commander's threat against the revolutionaries had radicalized the revolution (Goerlitz et al. 1982), leading to the King's beheading. This shows that foreign interference can worsen and further destabilize a situation in a country during the period of revolution. After the last stage of the revolution, the republic under the *Directoire* gradually developed into a dictatorship under Napoléon (see Sect. 3.2). Finally, the revolution had not reached the desired final result because it had been used by Napoleon, an ambitious person from low nobility, to satisfy his personal ambition.

Notwithstanding, the revolution had triggered some changes:

- French people developed a new identity as a people in their fight against their own monarch and against foreign sovereigns, partly due to the Jacobins' ability to motivate the people to a "Levée en Masse" and partly due to Napoleon's victory over foreign sovereigns (Goerlitz et al. 1982).
- Napoleon legally established equality before the law and personal freedom in France, spread liberal ideas all over Europe, and inspired reforms in Prussia (e.g., the establishment of freedom of trade, the overcoming of the feudalism by the abolition of serfdom of the peasants, and the Jewish emancipation)
- The states belonging to Napoleon's dominion replaced the former education monopoly of the Jesuits by state education.
- A new ruling class had been formed: New Napoleon-created aristocracy, big bourgeoisie, and old nobility became the new ruling class which did not even change when the Bourbons temporarily returned to the French throne after Napoleon's defeat in Waterloo (Kinder et al. 2011). So, the previously second and third estate had turned into the first estate. The lower estates got empowered to some extent.

### ***7.1.3 Visible and Hidden Drivers and Consequences of the Congress of Vienna and the European Revolutions***

Similar to the counter-reformation in the field of religion, the Congress of Vienna was also a reactionary revision of innovative movements. Metternich, the son of a Rhenish Sovereign Prince, once deposed and expropriated by Napoleon, had personal motives to oppose revolutionary movements. Since Metternich saw that the Revolutionary War was no ordinary war, but a war of the poor against the rich, he considered it Austria's duty to defend the counter-revolution (Bergeron et al. 1975). In 1814, when the Congress of Vienna started, Pope Pius VII allowed the

re-establishment of the Jesuits after their prohibition more than 40 years ago (Kinder et al. 2011; Bergeron et al. 1975).

The reactionary movement was additionally strengthened by the literature of some romantic writers (Novalis, Thieck, Sir Walter Scott, etc.) who deified and featured the middle-ages and Catholicism in a romantically-transfigured way, opposing most ideas of progress and enlightenment. The awakening of religious feelings in the Catholic Church and in Protestantism (Pietism) was promoted by the sovereigns as the religious movements guaranteed them hardworking and obedient subjects and supported the class society. The pietistic movement, supporting the alleged “divine” right of kings and denouncing freedom and equality as the work of Satan was, inter alia, initiated by the pietistic German-Baltic Juliane von Krüdener who represented Tsar Alexander I at the Congress of Vienna and who was one of the drivers behind the formation of the Holy Alliance (Flathe 1883; Bergeron et al. 1975). Moreover, many people felt attracted by occult masonic lodges, e.g., by high-degree-lodges according to the Scottish Rite with para-religious mysticism, additionally fostering reactionary movements (Bergeron et al. 1975). All these factors led to the solidarity of rulers against revolutionary and national movements (Barbarization variant 2 where uprisings were contained by authority).

In response to this repressive system, three big revolutionary waves emerged in Europe within the period of 1817–1848. In the first revolutionary wave (1817–1829), only Greece succeeded. In its revolution against the Ottoman Empire, Greece was supported morally and militarily equally by conservative and liberal “Philhellenes” from all over Europe (volunteer organizations as well as French, British, and Russian fleet squadrons) and ultimately freed from the Ottoman rule, leading to the sovereignty of Greece in 1830 and the dissolution of the Holy Alliance. Especially the Russian Tsar had supported the revolutionary movement due to his solidarity with the Orthodox Greek faith because he considered religious solidarity more important than authoritarian solidarity. Thus, idealistic motives had triumphed over realpolitik, facilitating further revolutionary movements in Europe.

The second wave of revolution in Europe began in 1830 with the July Revolution in France, promoted by Thiers (the editor of the “National”) and by La Fayette. This revolution did not lead to the desired Republic, but replaced an ultra-conservative monarch by an economically liberal one, the “Citizen King” Louis Philippe: The parole “Enriches-vous” became the new motto of France’s civil upper classes (Hilgemann and Kinder 1986).

In Germany, the implementation of revolutions was especially difficult: Actually, at least 35 single revolutions would have been needed to rise up against the leadership elite due to the multitude of ruling princes and foreign monarchs ruling via personal unions (the British and the Danish king). In Austria, a successful revolution would have necessarily led to the dissolution of the state itself because Austria was a multi-ethnic country.

In 1848, the third wave of revolution emerged: The February Revolution broke out in France because King Louis Philippe had exclusively strengthened the possession bourgeoisie: in Alexis de Tocqueville’s opinion, the government resembled a

“corrupt stock corporation” (Hilgemann and Kinder 1986). After an initial success, the violent suppression of the Paris riots against the closure of the national workshops traumatized the general public (see Sect. 3.5). The National Workshops had been inefficient, leading to a tax increase, annoying both the bourgeoisie and the peasant proprietors who felt exploited by people who seemed unwilling to work (Bulle 1890). As the solidarity between the different classes was missing, the revolution was doomed to failure, leading to Louis Napoleon’s overwhelming election success and the re-establishment of a monarchy by Louis Napoleon who would later on become Napoleon III (Kinder et al. 2011).

In sum, the 1848 Revolution of Europe failed due to the generally superior military power of the ruling class and people’s discouragement because of the traumatizing crackdown of the Paris Riots which had not been induced by a despotic monarch but by the possession bourgeoisie.

### ***7.1.4 Nationalism and Imperialism***

After the war of 1870, a constitution according to the *Paulskirche* paradigm was created in Germany by Bismarck in 1871 (see Sect. 3.7). Bismarck strengthened the German people’s national consciousness. Following the war of 1870, France became finally a republic. After 1870, nationalist movements increased everywhere and civil society gained confidence, whereas the Catholic Church, especially the Jesuits, were marginalized (especially in Italy, Germany, and France).

In continuation of the colonial policy of the sixteenth to eighteenth century, the exaggeration of nationalism led to imperialism – particularly towards the end of the nineteenth century. Based on the ideas of Social Darwinism and racism with the juxtaposition of supposedly high quality and supposedly inferior “races”, many people considered their own nation or ethnicity superior to others and wanted to gain control over other nations (Kinder et al. 2011; Goerlitz et al. 1982). Especially in the U.K., economic and political interests merged with the puritan conviction to promote progress and civilization throughout the globe. Disraeli, for example, demanded an aggressive imperialist policy realm against opposition from the Liberals in 1872. This faith of being the chosen people (Thomas Carlyle) led to a pursuit of power. Typical representatives of expansive imperialism using or promoting military power included Disraeli, Carlyle, Dilke, and Cecil Rhodes. The heyday of imperialism coincided with the heyday of big capitalism. Therefore, imperialist policies were usually coupled with the interest to extend the realm of one’s own economic reign. All major countries of the world (first Britain, then the U.S., afterwards France, and later on Germany) shared most of the earth’s surface among them with the help of this imperialist policy, causing new conflicts almost everywhere in the world. European problems took a backseat in comparison. The imperialist competition between the great powers was one of the reasons for the outbreak of WWI (Kinder et al. 2011).



### ***7.1.5 Social Problems and Solving Approaches: Communism as a Theoretical Paradigm vs. Social Reforms***

The rise of capitalism, inspired by industrialization and imperialism, provoked socialist and communist movements against the growing social injustice due to the excesses of industrialization in the second half of the nineteenth century. Two Germans from the wealthy and educated Bourgeoisie (Friedrich Engels and Karl Marx) became aware of the fact that the industrial proletariat had nothing but their labor power.

Friedrich Engels, the son of a wealthy manufacturer had won deep insights into the miserable labor conditions in English factories, especially in his father's branch in Manchester, and criticized the severe human right violations in industry due to the exploitation of the working class, including the cruel treatment of child laborers. Marx, the son of a lawyer, was blood-related to a wealthy banking dynasty, had a PhD in philosophy, and was active as a journalist in the European revolution of 1848. In 1848, Engels and Marx wrote "Das Manifest der kommunistischen Partei" on behalf of the League of Communists, developing the following doctrine: Previous history was determined by class struggles. The last fight is the fight between bourgeoisie and proletariat. All means of production should be in the hands of the workers; Marx and Engels demand the socialization of the means of production. The union of the proletarians is the preparation for the revolution and will finally lead through the dictatorship of the proletariat into a classless society (Marx and Engels 1848).

In 1867, Marx published the first volume of his work "Das Kapital" (a book consisting of three volumes), developing the theory of surplus value: In the capitalist society, the worker, selling his labor power as commodity to the entrepreneur, produces more than he earns; the entrepreneur retains this surplus value as his profit, leading to the accumulation of capital while leading to the impoverishment of the proletariat. Marx argued that overproduction made the capitalist industry crash regularly, leading to crises (Marx 1867). Interestingly, Marx forgot to mention the high surplus value created by interest rates of banks providing loans.

In England and France, there were some modest attempts to mitigate the worst excesses of industrialization by labor law, e.g., by restricting the working hours for children and by fostering trade unions. Since 1871, Germany under Bismarck took a leading role in the creation of socially-oriented legislation in favor of the working class which did not only lead to a significant economic upturn but also to a certain degree of social peace in internal affairs, creating a win-win situation. Due to legal regulation, communist ideas had little chance to be implemented in Western Europe. This might have been one of the reasons why communist revolutions didn't succeed in Germany.

Communism, originally a merely theoretical concept, would be put into practice for the first time in Russia under Lenin after the Bolshevik revolution had succeeded in 1917 due to foreign assistance (see Sect. 7.1.6) and then under his Jesuit-educated successor Joseph Stalin (Mayer 2013). This political system would later on be imported into all countries of the Eastern Bloc after WWII and even later, inter alia,

in China under Mao. In sum, the basically misanthrope communist system killed over 100 million people worldwide (Fabian n.d.; Radunski 2012). The disastrous impact of communism on the social capital and on the natural environment has also been described in Chap. 4 where communism has been exposed as a fortress world scenario, consisting of a tiny powerful and wealthy party elite on the one hand and a poor, starving, and suppressed population on the other hand.

### ***7.1.6 Analysis of the Political Situation from 1910 to 1945***

In 1913, the Federal Reserve, a private banking cartel, was established in the U.S. Already three years ago, in November 1910, a group of London based international bankers<sup>1</sup> met at Jekyll Island, Georgia. Within two weeks, they elaborated the Banking Act, later known as the Aldrich plan or the Federal Reserve Act. The goal was to gain control of the money and the credit of the people of the U.S. The name “Central Bank” was intentionally avoided. Nevertheless, the core aim was to develop a system that would fulfill the main functions of a central bank which should be owned by private individuals who would profit from ownership of shares (Mullins 1983; Griffin 2002). The Aldrich plan was promoted by a nationwide propaganda campaign beginning in 1910. Three leading U.S. universities were used to boost the campaign. The national banks were made to contribute to a fund to convince the general public that this plan would be enacted into law by the congress (Griffin 2002).

Shortly before the Aldrich plan was supposed to be pushed through at the congress on December 22, 1913, (Griffin 2002), the congressman Charles Lindbergh<sup>2</sup> stood up and declared: “This Act establishes the most gigantic trust on earth. When the president signs this bill, the invisible government by the Monetary Power will be legalized...The people must make a declaration of independence to relieve themselves from the Monetary Power...Wallstreeters could not cheat us if you senators and representatives did not make a humbug of Congress ...The worst legislative crime of the ages is perpetrated by this banking bill” (Mullins 1983).

President Wilson signed the Act one day later on December 23, 1913, under the name “Federal Reserve Act”. The name “Federal Reserve Banks” in the act was obviously chosen to pretend that it concerned the establishment of a federal institution while concealing the fact that it was actually a cartel of private banks (Mullins 1983; Griffin 2002). The year after the establishment of the Federal Reserve, WWI started.

In 1916, the U. S. decided to expand their banking system in Russia and in Eastern Europe; Germany wanted to end the war in the East as soon as possible. The economics professor and Stanford historian Anthony C. Sutton comes up with an abundance of unique documents, providing irrefutable evidence that the major U.S. banks (in short: “Wall Street”) gave massive financial support to the

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<sup>1</sup> Among them Nelson W. Aldrich, Benjamin Strong, and Paul M. Warburg (Griffin 2002).

<sup>2</sup> The grandfather of the so-called “Lindbergh baby”, a 20-month-old infant, who was kidnapped on March 1, 1932 and found murdered on May 12, 1932. The circumstances of the case and the real perpetrators are still controversial (Vogt 2001).

key players of the Russian Revolution (Trotsky and Lenin) in 1916 and, after the successful revolution, built up banking ties with Russia since 1917. A Red Cross mission was used as a cover which consisted mainly of lawyers, bankers, and military – according to Sutton “the most unusual Red Cross Mission the world has ever seen” (Sutton 1974).

Sutton had access to a report from which it became obvious that in spring 1917 Jacob Schiff, one of the leading agents of Wall Street, started to finance Trotsky with the objective to trigger a social revolution in Russia. Internationally networked banks including German banks worked together hand in hand with the German government. Despite different motivations they had a common goal: to eliminate the Tsarist empire in order to install a fresh start with a new Russian government (Sutton 1974).

With the Bolshevik Revolution in Russia in February/March 1917 and the overthrow of the Tsar, the war had taken a decisive turn. When the new liberal-socialist government of Russia continued the war, the Germans allowed the exiled Russian revolutionary Lenin’s return to Russia; his Bolshevik followers seized power in Russia in the so-called October Revolution of 1917. Germany used this transformation to force Russia into the Peace of Brest-Litovsk and to oblige it to renounce its areas in the West (Goerlitz et al. 1982; Kinder et al. 2011).

After the defeat of the Ottoman Empire (Turkey), Great Britain won a superior position in the Middle East. The Arab desires for independence were as much disappointed as the Jewish hopes for a new home in Palestine due to broken promises of the British. Especially the Zionist (nationalist) Jews got severely disappointed by the unreliable conduct of the British who had officially promised them a homestay in Palestine in the controversial *Balfour Declaration* of 1917 (Kinder et al. 2011; Quigley 1966). The failure of this project had been rather incomprehensible because it had been strongly pushed by leading members of a renowned banker dynasty who had visited Palestine very often between 1914 and 1917 and had promised to erect a Synagogue for the scattered Jewish settlement as to be read in several newspaper articles which appeared during WWI (Universitätsbibliothek Frankfurt am Main: Rothschild-Sammlung Online 2011). The objective of establishing a Jewish state would be achieved only ca. 30 years later with the proclamation of the State of Israel on May 14, 1948; the establishment of a Palestinian state has, however, not been realized until today.

Generally, WWI led to several major transitions. In fact, after 1918, three major European monarchies were eliminated: Germany, Austria-Hungary, and Russia where republics were established.

A victory of the Germans would have had devastating economic consequences for the financial establishment of the U.S.; in case of a defeat, the allied loans could not have been repaid. Finally, the war was decided in favor of the allies because of the superior financial and economic power of the United States (Goerlitz et al. 1982).

After the end of WWI, production in the U.S. had been converted from war production to peacetime production. Sufficient sales in the postwar period because of the pent-up demand together with the repayment of the German war debt led to a money flow in the U.S. A portion of this money was borrowed to foreign countries (including Germany); the other part was invested into the expansion and modernization of the industry in the U.S. The resulting high employment and wage levels led

to a high purchasing power. Nevertheless, over time this situation resulted in overproduction and declining prices. A large amount of highly speculative shares were offered for sale on the stock exchange; prices fell on the 24th of October 1929 (“Black Friday”).

Banks and savings banks were implicated as lenders. This caused an economic crisis with production decline, plant closures, high unemployment, and resultant sales crisis in the U.S. which, in turn, triggered a spiral of decline in production and increase in unemployment. By then, due to the already existing close interdependence of the world economy, the economic crisis in the U.S. had an impact on other countries. World trade fell by protectionist economic policies of all states. The U.S. withdrew their loans from abroad. Germany and Austria who already lacked financial reserves were particularly hard hit (Goerlitz et al. 1982).

The global economic crisis led to high unemployment in Germany, causing severe internal political conflicts with the establishment of new chancellors at ever shorter intervals (from 1930 to 1932 Brüning, then Papen, and afterwards Schleicher 1932) who ruled with emergency decrees; the governments of the Weimar Republic assumed more and more authoritarian traits.

The Jesuit-educated von Papen agreed upon a joint government formation at a secret meeting with Hitler in the house of the banker Kurt von Schroeder. In another secret meeting between von Papen, Hitler, and Oskar von Hindenburg (the President’s son), Hitler’s appointment as chancellor was fixed which was finally done by the senile President Hindenburg (Kinder et al. 2011).

Actually, Hitler was massively supported by circles of high finance – not only by the German high finance, but also, as Sutton reveals by an impressive range of documents, by the American high finance which was very closely linked with the German industry. The list of companies financing the rise of Hitler reads like a “Who’s Who” of the German and American heavy industry and high finance. Among the sponsors were, inter alia, German and American I.G. Farben, A.E.G., General Electric, General Motors (Opel), Standard Oil, the self-professed Jew-hater Henry Ford, Prescott Bush, Fritz Thyssen, and Wall Street banks. Sutton’s extensive research, backed up by clear evidence in terms of documents and witness statements, reveals that American financiers “provided the money and the material Hitler used to launch World War II”. Moreover, major U.S. multinationals were closely connected to the Jesuit-educated Heinrich Himmler (see Sect. 3.8) and supported the SS financially until 1944 (Sutton 1976).

### ***7.1.7 The Transition from Fascism to Democracy in Western Europe: A Perfect Façade with Stains***

With Adolf Hitler and Mussolini gone, democracy was officially established in most Western countries after the war, but, while some Nazi criminals were sentenced in the Nurnberg trials, others went scot-free and made careers in Germany’s Department of Justice (Focus Online 2013) or abroad via the “Operation Paperclip” (Jakobson 2014). More than 1,000 Nazi scientists were brought to America immediately after

the end of WWII after special interrogation techniques, programs, Operation Bluebird experiments (involving LSD and other drugs), and recruitment processes had started in a clandestine camp near Frankfurt (*Camp King*). Nazi criminals helped the CIA to develop rockets, the NASA program, chemical and biological weapons, and many other weapons of mass destruction: Sarin toxins were tested on American soldiers without their knowledge. The army's herbicidal warfare program during the Vietnam War with 11.4 million gallons of Agent Orange sprayed over more than 24 % of South Vietnam had been developed by the Nazi war criminal Fritz Hoffmann (Jakobson 2014).

Similarly to the U.S., the Soviet Union equally benefitted from German Nazi know-how – especially in aircraft and rocket construction. Throughout the period of the Cold War, Western technology transfer, mainly from the U.S., helped the Soviets to build their defense industry as well as their space and missile technology. The Cold War was basically a shadow boxing, mainly affecting the unsuspecting population who was blocked from free travel and free trade between East and West, whereas the privileged Establishment in East and West could basically travel and trade as they pleased. According to Sutton, a possible reason for the apparently paradoxical behavior of the U.S. to provide military aid to Moscow was that most leaders of American politics have rarely to bear the direct consequences of wrong decisions, alluding to the fact that elitist circles decide and act while the people always endure the consequences (Sutton 1973).

During the period of the Cold War, invisible transformations took place in the catchment area of the NATO including Turkey. Soon after WWII, the department of covert warfare of the NATO had established a coordinated network of secret armies (a direct copy of the British Special Operations Executive SOE) which were operating within democratic states (Ganser 2012).

After the end of the Cold War, in 1969, Italy's then Prime Minister Giulio Andreotti was forced to confess that there existed secret armies (Stay-Behind Armies) in European NATO countries as well as in Switzerland which operated under the name "Gladio" (Italian: the sword) in Italy. In all these countries, these stay-behind armies operated within the state, directed by the respective military intelligence in close cooperation with the CIA and MI6. Only the heads of the executive (presidents, prime ministers, home secretaries, and defense secretaries) were integrated into the system but parliaments and the population were not informed. In Germany, high-ranking SS officers and intelligence agents had been recruited (including Reinhard Gehlen, Hitler's head of the German Soviet espionage) for the construction of a Stay-Behind Army. The whole espionage system was put under the direction of Reinhard Gehlen soon after WW2: The "Organisation Gehlen" was the precursor of the German intelligence service BND (Ganser 2012).

The "Allied Clandestine Committee" (ACC) and NATO's "Supreme Allied Powers Europe Headquarters" (SHAPE) coordinated these actions of the Stay-Behind-Armies on international level. The secret armies were equipped with machine guns, explosives, ammunition, and high-tech communication tools which were distributed in forests, meadows, and underground bunkers all over Western Europe by the CIA and MI6. The numerous assassinations and bombings in Italy,

including the brutal attack in the central station of Bologna in 1985, were organized and committed in most cases by extreme right-wing groups in cooperation with the prominent masonic Vatican-linked P2 Lodge, used by NATO as major players in the covert war against communism. Officially, communists and left-wing extremist terrorist organizations had been blamed by authorities and politicians for the series of bomb attacks in the 1970s and 1980s – frequently against better judgment (Ganser 2012). According to experts, this system of stay-behind armies still continues to exist in contrary to official statements (Blancke 2011).

### ***7.1.8 Silent Transformation of the U.S.: The Rise of a State within the State***

In his farewell address in January 1961, Eisenhower stated that America was facing “a hostile ideology – global in scope, atheistic in character, ruthless in purpose, and insidious in method...The total influence – economic, political, even spiritual – is felt in every city, every State house, every office ...In the councils of government, we must guard against the acquisition of unwarranted influence...by the military-industrial complex...” (Eisenhower 1961). This way, Eisenhower warned his people against global networks which were responsible for the rise of a state within the state.

JF Kennedy used similar words three months later in his April 1961 speech, apparently equally alluding to the military-industrial complex and secret societies connected to it:

...The very word “secrecy” is repugnant in a free and open society; and we are as a people inherently and historically opposed to secret societies, to secret oaths and to secret proceedings...For we are opposed around the world by a monolithic and ruthless conspiracy that relies...on infiltration instead of invasion, on subversion instead of elections, on intimidation instead of free choice, on guerrillas by night instead of armies by day...a tightly knit, highly efficient machine that combines military, diplomatic, intelligence, economic, scientific and political operations. (Kennedy 1961).

The period following Kennedy’s assassination on November 22, 1963, was a textbook example for a silent transformation of the existing political system by the very networks against which Eisenhower and Kennedy had warned in their speeches. In “Trance: Formation of America”, the MK-Ultra Project Monarch victim Cathy O’ Brien<sup>3</sup> and the intelligence insider Mark Phillips expose the U.S. government’s use of the covert, illegal, and un-constitutional trauma-based mind-control tool MK-Ultra Project Monarch, decrying the fact that the application of this kind of mind-control tools and other grievances are covered up by the CIA and the National Security

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<sup>3</sup>Born in 1957, Cathy O’ Brien, whose father led a Blue Masonic Lodge, was chosen for “Project Monarch” in 1963, describing this project as “...a U.S. government Defense Intelligence Agency TOP SECRET project ... ‘recruiting’ multigenerational incest abused children with Multiple Personality Disorders for its genetic mind-control studies.” (O’ Brien and Phillips 2005).



Agency (NSA) under the pretext of national security, thus blocking all paths to justice and rehabilitation for the victims of mind-control (O'Brien and Phillips 2005).

Cathy O'Brien who acquired knowledge of this Top Secret U.S. Government Psychological Warfare Technique from her "personal experience as a White House 'Presidential Model mind-control slave'" describes MK-Ultra Project Monarch mind-control as "a sophisticated and advanced form of behavior modification" (O'Brien and Phillips 2005), alleging that certain networks in the U.S. used this mind-control tool (once imported via Operation Paperclip into the USA) to implement Hitler's world domination ideology, the so-called "New World Order", "through advanced technologies in, among others, genetic mind-control engineering ..." (O'Brien and Phillips 2005). The high efficiency of MK-Ultra as a tool for controlling and monitoring human behaviour individually and collectively in politics and military operations is confirmed in the book "MindWar", written by the former DIA<sup>4</sup> Lt. Colonel Michael Aquino (Aquino 2013) who is repeatedly mentioned by Cathy O'Brien as one of her MK-Ultra programmers who used her in "Hands on Demonstrations on numerous Army, Navy, Air Force, and NASA installations across the U.S. according to Reagan's plans and Cheney's orders" (O'Brien and Phillips 2005).

In her role as an MK-Ultra mind-controlled and programmed "carrier pigeon", Cathy O'Brien promoted government projects like NAFTA (see Chap. 3) and Education 2000<sup>5</sup> well ahead of their implementation, advertised certain organizations abroad, e.g., the Jesuit controlled organization *World Vision* to Baby Doc in Haiti, and witnessed, inter alia, CIA covert Black Budget Operations of drug and slave trading, aberrations at the supposedly secure political playground Bohemian Grove in northern California along with the covert production of international blackmail tapes by means of high-tech undetectable cameras using fiber optics and fish-eye lenses, as well as the close cooperation of NASA, the NSA, the CIA, the DIA, the Vatican, and the U.S. government in secret projects and also got involved into operations connected to the so-called Iran-Contra affair<sup>6</sup> in the Reagan era. Cathy O'Brien who had once taken the Jesuit vow of silence but finally became aware, like so many others in Intelligence, that silence equals death and knowledge is our only defense against mind-control quotes Senator Dannie Inouye who commented on the operations of America's secret government before a Senate Subcommittee, describing it as a "shadow government with its own Air Force, its own Navy, its own fund raising mechanism, and the ability to pursue its own ideas

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<sup>4</sup> Defense Intelligence Agency, a U.S. military intelligence service.

<sup>5</sup> According to O'Brien, Education 2000 was designed to increase the children's learning capacity while destroying their ability to critically think for themselves.

<sup>6</sup> In this affair consisting of different covert operations, into which also the then CIA director William Casey was involved, the National Security Council (NSC) was used to circumvent congressional restrictions in raising private and foreign funds for the *Contras* (the Nicaraguan contra rebels, who were conducting a guerrilla war against the *Sandinista* government of Nicaragua). These funds included profits from the arms sales to Iran, which were done in exchange for the release of American hostages held by Iranian allies in Lebanon (Draper 1991; GlobalSecurity.Org. Intelligence 2013).

of ‘national interest’, free from all checks and balances and free from the law itself” (O’Brien and Phillips 2005).

John Perkins, another expert witness in the field of covert political strategies who was profiled by the NSA as an ideal *Economic Hit Man* (EHM) in 1968 and worked indirectly for the NSA via his position as an economist at the international consulting firm MAIN from 1971 to 1991, describes his experience of how the economy and politics are manipulated by powerful private background players in the following way:

Economic hit men (EHMs) are highly paid professionals who cheat countries around the globe out of trillions of dollars. They funnel money from the World Bank, the U.S. agency for International Development (USAID), and other foreign “aid” organizations into the coffers of huge corporations and the pockets of a few wealthy families who control the planet’s natural resources. Their tools include fraudulent financial reports, rigged elections, payoffs, extortion, sex, and murder. They play a game as old as Empire, but one that has taken on new and terrifying dimensions during this time of globalization. I should know; I was an EHM (Perkins 2005).

According to Perkins “... an elite group of men and women utilize international financial organizations to foment conditions that make other nations subservient to the “Corporatocracy” running our biggest corporations, our government, and our banks” (Perkins 2005), providing loans for infrastructure development under the condition that engineering and construction companies from the US are permitted to build all these projects. Perkins stresses that the money for these loans actually never leaves the US but is returned to members of the “Corporatocracy” immediately, whereas the countries which got the loans get indebted and forced to turn their land and their natural resources in to the “Corporatocracy” (Perkins 2005).

Perkins explains the secret three-step-attempt of projects which the “Corporatocracy” wants to push in certain target countries: First, they send in EHMs; if the EHMs fail, the so-called “jackals” step in, “...men who trace their heritage directly to those earlier empires...” who are overthrowing politicians or make politicians die in violent “accidents”. If those fail, too, “...as they failed in Afghanistan and Iraq... young Americans are sent in to kill and to die” (Perkins 2005).

### ***7.1.9 Key Transformations in the Second Half of the Twentieth Century***

Although the Perestroika (=transformation) has not been an issue in the public discussion before 1987, the situation which would later on facilitate the implementation of the Perestroika had been intentionally provoked and prepared half a decade earlier. In June 1982, Ronald Reagan and Pope Jean Paul II met in the Vatican. Simultaneously, Cardinal Casaroli and Archbishop Achille Silvestrini met with the Secretary of State Alexander Haig and Judge William Clark, Reagan’s National Security Adviser. Some weeks before Reagan’s meeting with the Pope in 1982, the President had signed a secret national-security-decision directive (NSDD 32),



authorizing a range of economic, diplomatic, and covert measures to counteract efforts of the U.S.S.R. to maintain control over Eastern Europe including the promotion of the right to worship the Catholic Church and the organization of resistance in the communist countries of Europe (Bernstein 2001).

After a short discussion about the operations in the Middle-East, Reagan and the Pope agreed to undertake a secret campaign to accelerate the dissolution of the communist empire – according to Reagan’s security adviser “one of the greatest secret alliances of all time” (Bernstein 2001). Their plan was to weaken the Soviet Union by destabilizing the Polish government, supporting the prohibited underground movement “Solidarity” by money derived from CIA funds, the National Endowment for Democracy, secret accounts in the Vatican, and Western trade unions and by sending priests undercover to Poland to advise Lech Walesa (Bernstein 2001).

Later on, they developed a five-points-plan including a buildup of the U.S.’s Strategic Defense initiative Star Wars. The key Administration players were all Roman Catholics including CIA chief William Casey, Allen, Clark, Haig, Walters, and William Wilson, Reagan’s first ambassador to the Vatican. They regarded the U.S.-Vatican relationship as a “holy alliance” (Bernstein 2001).

In 1987, after Warsaw was ready to open a dialogue with the church, Reagan cancelled US sanctions. In July 1988, Gorbachev visited Warsaw, signaling recognition that the government could not rule without Solidarity’s cooperation. In April 1989, both sides signed agreements legalizing Solidarity and called for open parliamentary elections in June. In November 1989, the Berlin wall was opened (see Sect. 3.9). In December 1990, only some years after he had been arrested and his labor union had been banned, Lech Walesa became President of Poland (Bernstein 2001). One year later, in December 1991, the USSR was dissolved; the Cold War ended (see Sect. 3.9).

Although the establishment of the EU (see Sect. 3.9) had not been kept secret, the gradual transformation from the ECC from an economic community into a political union had been anything but obvious in the early stages of the implementation of the European idea. Perestroika and the fast breakdown of communism along with the transformation of the EC to the EU have opened the floodgates to unbridled globalization which, due a lack of legal regulation in many fields, finally caused many problems on a global base (previously unseen levels of unemployment since ca. 2000, the global financial crisis from 2008 involving state bankruptcy, and many conflicts) against which Carl Friedrich v. Weizsäcker had warned in his book “Der bedrohte Friede”/“The threatened Peace” (von Weizsäcker 1983) long beforehand.

Certain developments in the EU are largely hidden from the public eye. This goes especially for the existence of the European Gendarmerie Force Eurogendfor (European Gendarmerie Force 2014) whose existence and role is unknown to most EU citizens in spite of possibly far-reaching political consequences (Roth 2014; Hunko 2014).

The real drivers behind even more dramatic developments on a global scale are about to be discovered. Until previously, it had been controversial whether the global financial crisis from 2007/2008 happened simply due to economic factors or whether it was artificially staged by criminal networks.

According to a former Pentagon contractor report, “financial subversion carried out by unknown parties, such as terrorists or hostile nations, contributed to the 2008 economic crash by covertly using vulnerabilities in the U.S. financial system”, suspecting China or other “hostile” foreign nations to lead economic warfare against the U.S., whereas economic analysts and a final report from the Federal Government’s Financial Crisis Inquiry Commission blamed the crash rather on economic factors like high-risk mortgage lending practices and poor federal regulation and supervision (Gertz 2011).

Meanwhile, the US Federal Deposit Insurance Corporation (FDIC) has sued 16 banks including Barclays, HSBC, Citigroup, and the Royal Bank of Scotland for Libor Fraud, i.e., for having manipulated the London interbank offered rate (Libor), causing substantial losses to 38 US banks which were shut down during and after the 2008 financial crisis. The FDIC alleged that the banks mentioned in its lawsuit (including the Bank of America, JPMorgan Chase, Deutsche Bank, Lloyds Bank, Credit Suisse, UBS, and Rabobank) rigged the rate from August 2007 on. FDIC also sued the *British Bankers’ Association (BBA)* for having “...participated in the alleged scheme to protect the revenue stream it generated from selling Libor licenses and to appease the Panel Bank Defendants that were members of the BBA” (BBC 2014; see also Sect. 5.3). These facts indicate that it was apparently not China who led the covert economic warfare against the US mentioned above which would later on expand to a global financial crisis.

Other controversial international developments encompass the Trans-Atlantic Free Trade Agreement TAFTA which would give individual corporations the same status like nation states by a foreign investor privilege scheme empowering foreign corporations to circumvent domestic laws and courts while demanding taxpayer compensation for government actions or policies to safeguard clean air, safe food, and stable banks. It would grant foreign firms the power to drag the U.S. and EU governments before extrajudicial tribunals consisting of private attorneys, entitled to order unlimited taxpayer compensation for domestic health, financial, environmental, and other public interest policies allegedly undermining expected future profits of the corporations (Wallach 2013). Some critics also claim that the TAFTA was a nail in the coffin of global trade which might especially create conflicts with Asia (Langhammer 2013).

In sum, it becomes obvious that significant political and economic decisions and transformations have often been implemented under exclusion of the general public – sometimes even by covert operations of democratically not legitimized players. Democracy and Sustainable Development can only thrive, if a high degree of transparency and democratic participation is guaranteed.

## 7.2 Cultural Aspects in Transformations and Transitions

Comparing the conduct of people in the USA and Western Europe with the people in Eastern Europe, e.g., in Romania, shows that the way to deal with transitions has been very different due to the respective mindset, based on cultural and historical

heritage. The description of the people in Romania indicates that Eastern Europeans tend to be more indulgent towards suppression than the people in, e.g., America, France, or Germany. This goes especially for Romanians who only resorted to silent defense mechanisms for a long time (see Chap. 4). The Romanians were basically satisfied by having at least administrative autonomy and a common language which was unique in the Balkan. The Romanians' high level of resilience and their passive resistance had given the people some psychological freedom which made them and still makes them more immune against manipulation by other countries, e.g., against the Western advertisement industry as shown by the fact that Romania was the first country to impose a tax on junk food (see Chap. 4). The fact that Romania is less affected by the financial crisis than some Western countries as equally revealed in Chap. 4 might also be due to a higher degree of resilience towards Western spending patterns which are due to a higher need for luxury, influenced by the American lifestyle.

The chapter about Asia has confirmed the prevailing view that the mentality of people in Asia is quite different from the Western mentality. Asian people tend to think in bigger dimensions and in longer periods. As shown from Chap. 6, people in Malaysia measure the quality of a government according to its durability. If a ruler stays in power for over 20 years, this is considered an indicator for the quality of his reign, measured by its long-term stability. According to Chap. 6, people in Malaysia and possibly also in other Asian countries consider demonstrations a waste of time, energy, and resources, distinguishing them from people in the West who seem rather addicted to revolutions. This might be due to the fact that in some Asian countries, people are used to a high degree of integrity from their governments and thus basically trust their governments. At least in Malaysia, the former Prime Minister had the spine to speak out against the obvious players (certain Western economic Power Players) behind the financial crisis already back in 1997 (see Table 6.1 in Chap. 6). In fact, Malaysia mastered the financial crisis from 1997 by strict regulation of the banking sector (Stiglitz 2010). Moreover, the spending patterns of people in some Asian countries are also different from Western spending patterns as some Asian governments, e.g., the Malaysian government, tend to encourage people to save rather than to spend money (see Chap. 6).

In spite of their different geopolitical conditions, Romania and Malaysia are both examples of countries whose people have learnt to deal with transformations and transitions in a flexible way due to their historical heritage while having preserved at least a part of their cultural heritage and shown continued resilience against negative influences from Western countries, such as the Western tendency to waste money and to consume unhealthy junk food.

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# Chapter 8

## Performing the New Sustainability Paradigm: The Role of Culture and Education

Kanta Kochhar-Lindgren

*To our grandparents, who labored and dreamed for us.  
To grandchildren the world over, for whom we labor and dream.*

*... a powerful ethos for a sustainable world. This is the stirring  
but intangible music of sus-tainability. Also needed are the  
lyrics and the dance—specific targets to concretize the goals  
and policy actions to achieve them.*

*(From The Great Transition: The Promise and the Lure of the  
Times Ahead, Paul Raskin et al.)*

**Abstract** This chapter examines how “performance” as a concept and practice can be leveraged to re-value both culture and education in the context of the new sustainability paradigm. *Artistic Research Collaboratives (ARC) on Participatory Choreographies in Our Future Cities* is a set of a place-specific interventions that uses methods drawn from the arts, design, and new media in order to investigate how to involve diverse audiences in alternative modes of problem-solving, civic engagement, and public diplomacy regarding local and trans-border sustainability issues. In order for us to have a clear understanding of the increasingly delicate links between culture, place, sustainability, and our futures, we need to engage in a range of place-based research projects that heighten sensitivity to and awareness of the local and that translate it in effective ways across our many national and geographical borders. This type of performance research work, such as these pilots and others underway, can lead to innovations in cross-border cultural and arts exchange, a range of new forms of social and cultural entrepreneurship, university-community engagement, and pedagogical transformation in a global context.

**Keywords** New Sustainability Paradigm • Education • Arts • Artistic Research Collaboratives (ARC) • Participatory choreographies • Place-based research • Cultural diplomacy

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## 8.1 Introductory Remarks

The future waits, always, for us to arrive. As we make that never-ending step from the present into the future—and between the spirits of our grandparents and the yet-to-be of our grandchildren—we now need to collectively turn toward the future and act in ways that fulfill the possibilities of what, in *The Great Transition: The Promise and the Lure of the Times Ahead*, the Global Scenario Group (GSG) terms, “a new planetary transition toward a humane, just and ecological future” (Raskin et al. 2002).

The Global Scenario Group (GSG) notes that there are:

[f]our major agents of change, [that] acting synergistically, could drive a new sustainability paradigm... Three are global actors—intergovernmental organizations, transnational corporations and civil society acting through non-governmental organizations and spiritual communities. The fourth is less tangible, but is the critical underlying element—wide public awareness of the need for change and the spread of values that underscore quality of life, human solidarity and environmental sustainability. (Raskin et al. 2002)

In the context of this coming future—as boundaries within and between nation-states shift—we are presented with the urgent need to generate new approaches that “wake up” the wide public awareness in order to reconfigure the local and the national across the performance of a “new sustainability.” Such approaches will account as fully as possible not only for environmental and political sustainability, but also travel across cultures in the context of globalization.

The GSG’s crafting of future scenarios, an approach that has a kinship to performance methodologies, provides a compelling set of metaphorical speculations regarding likely directions and possible outcomes of our current collective condition. In this process, they use a method of projecting into the future in order to look back on our current status from the “future” in the hopes of casting new light on our present condition. In order to assess the possibilities for the best outcome for all, the GSG asks, finally, what other options there may be beyond future scenarios based on what they call *Market Forces*, *Policy Reform*, or *Fortress World* – all of them options that will maintain various forms of imbalances of power, uneven distribution of goods, dire consequences for the environment, and the abuses of human rights (Raskin et al. 2002).

In order to move toward the “new sustainability paradigm” the GSG re-imagines our “future history” through a description of the Crisis of 2015 (told in 2002, the date of publication of the *Great Transition*) that catapults the YIN YANG youth movement into playing a major role in leading to significant planetary change. In the process of crafting a potential trajectory, this scenario underscores the role of digital technology (Raskin et al. 2002). At the end of their treatise, they note that the “curve of development must be bent twice. A radical revision of technological means begins the transition. A reconsideration of human goals completes it” (Raskin et al.). The GSG invite us to aim for nothing less than a planetary transformation—“the lure and promise of the global future” (Raskin et al. 2002).



It is beyond the scope of this chapter to analyze the constituent parts of all of these future scenarios. The focus, instead, must be on how we might generate new possibilities for hope and human agency in relation to what I would like to term “*performing* the new sustainability paradigm.” It is crucial that we generate new social, political, and *cultural dynamics* around sustainability practices and find ways to bridge the science, art, and religion divide that, unmitigated, will continue to haunt our ecological problems and limit our capacities to find new responses in a timely fashion.

Therefore, this chapter is part of a larger effort to investigate an alternative, and uneven, history of the methodology of “*performing the future*” in relation to the challenges of activating human agency in the context of the formation of new translocal cultures in emerging twenty first century transnational social, economic, and environmental theatres. In other words, *how can we create new stages*—in the theaters, in university halls, in the city and village streets, and on the web—for telling our (local and global) stories in ways that capture the “stirring but intangible music” and that move us to act toward a “new sustainability”?

In “Species Nova [To See Anew]: Art as Ecology,” David Haley notes: “It is 10 years since the Earth Summit in Rio popularized the notion of sustainable development and introduced Agenda 21 as a strategy to achieve it. Sadly, culture and art, two of the systems that define humanity, were not mentioned among the necessary tools for building a better future” (Haley 2003).

It is, then, to the re-creation of such systems that we must turn for a series of translocal and transnational solutions to the pressing questions regarding a new sustainability, which will depend on both global agreements and micro-processes in the local context. These cannot be “add-ons” to technical solutions, for these are the very spaces and meanings that are most deeply inhabited by all of us.

Over the past 6 years, a series of my own performance projects have explored intersections between water stories and theatres, the built environment, and the pressing questions of people’s access to water in a range of places, including for example, Pakistan, India, and Hong Kong SAR. These experiences have spawned, for me, a new approach to performance—as a method for what Erika Fischer-Lichte has elsewhere termed, the “interweaving of cultures” (Fischer-Lichte 2009). In a recent project in South India, for example, where Kathakali dancers retold the classical story of how Ganga, the goddess of the Ganges, descended to earth, the story became no longer one about how part of the geography of the world emerges, but one that conveyed the urgency of getting the water to the people (Figs. 8.1 and 8.2).

One of the dancers shared with me later that we need to spread the story—“the Indian way.” This incident has dual capacities that mark how stories can indicate cultural specificity and how they translocate culture. Cultural stories and their performances can then activate an emergent space of meaning that transpires within and across geo-cultural boundaries.

As this performance spreads and triggers other performances, a web of connectivity can emerge that motivate new actions and the search for alternative solutions to the problem of lack of access to clean water. This approach—as it impacts culture and education simultaneously—has the potential to act as a method for making





**Fig. 8.1** *Bageeradha asks Siva to release Ganga to the Earth.* Musicians: Murali M.N., Master Midhun Murali; Performers: Parassini Kadavu Rajesh-Lord Siva, Sadhanam Mohanan-Bageeradha (Source: *Folded Paper Dance and Theatre Company* in Cooperation with Greenix Village and Fort House, Fort Kochi, Kerala India. Photography Credit: Jebin J B and Anurudh Aneesh. Courtesy of *Folded Paper Dance and Theatre*. By permission of the copyright holder/copyright holders)



**Fig. 8.2** *Ganga arrives.* Biju Baskar (Source: *Folded Paper Dance and Theatre Company* in Cooperation with Greenix Village and Fort House, Fort Kochi, Kerala India. Photography Credit: Jebin J B and Anurudh Aneesh. Courtesy of *Folded Paper Dance and Theatre*)

concrete the “wide public awareness of the need for change and the spread of values” the efficacy of the “new sustainability paradigm... [that] validates global solidarity, cultural cross-fertilization and economic connectedness while seeking a liberatory, humanistic and ecological transition” (Raskin et al. 2002).

The generation of participatory *cultural heritage* experiences through performances and related artistic paraphernalia (stories, texts, and artifacts) honors our histories, builds bridges across our geographical regions, and creates the space for new stories to emerge. This work links the historical confluences of river-ecologies, water heritage sites, and the rapid proliferations of urban landscapes with emerging conversations on how to catalyze new forms of engagement with cultural diversity. Consequently, innovations in cross-border arts, cultural entrepreneurship, and university-community engagement in a global context can lead to the furthering of a civil society and new forms of entrepreneurship. Performance—as a transactive mode of building dialogue through artistic milieu—always brings tradition to bear in the present for the sake of a projection toward the future.

Haley both cautions us and invites us into new territory:

[T]hat our societies tend to value economics over ecology, and monoculture and agro-industry over diversity and permaculture, is certainly worthy of ethical attention. Here I want to invoke a call for integrating art as a necessary contribution to ecological intervention. I consider how artists may engage uncertainty, and how art may be used to develop new ways of seeing and “drawing” This is art for evolutionary survival, not commodification. Art that practices care, shared responsibility, and diversity in the pursuit of eco-centric cultures (Haley 2003).

Our ecologies, as organizations of material substances of the world as well as cultural systems of multiple layers of signification, are always aligned with meaning; therefore, the performative aspects of creating cultural responses to, and from, our ecologies will be essential if we are to change pathways toward a more sustainable future. I want, then, to begin to tease out some ways to bring together into the same theoretical and practical space to consider how “performing the new sustainability paradigm” is a constellation that can help open up different relationships between sustainability, cultural, educational, and social transformation.

As our global cities become ever more densely urbanized, there is a pressing need for new forms of public and arts diplomacy, cross-border partnership building, and cultural heritage projects that honor the past and build toward a new future, especially through the concept of globally networked communities. These processes of urbanization require the development of new forms of active people-to-people engagement in order to listen to and prepare for the complex dilemmas we are facing now and will face in the future. The multi-modal format of theatre and related art forms is extremely well-suited for engaging diverse populations—including youth and other underserved communities—reaching a broad audience, and conveying important ideas about civic engagement and arts diplomacy. These exchanges that from the beginning include multiple voices will, in turn, add momentum to the work of public diplomacy that creates more effective global citizens.

## 8.2 Towards a Practice of Performing the New Sustainability Paradigm

Can we live our maps differently? Could we inhabit our histories differently? *Dark Writing: Geography, Performance, Design*, Paul Carter

In the *Future as Cultural Fact: Essays on the Global Condition*, Arjun Appadurai writes about the vast numbers of people who face “poverty, exclusion, displacement, violence and repression” and the ways in which trauma of ordinary living can supplant a sense of hope that “[t]his affective crisis, which also inhabits a geography that is not uniform, planetary, or universal, needs to be engaged fully by those seek to design the future...a space for democratic design that must begin with the recognition that the *future is cultural fact*” (Appadurai 2013, my emphasis.) What is crucial in Appadurai’s latest work is his own sense of recognition about the importance of the “future as cultural fact.” In delineating the ongoing and often extreme living conditions of much of the world, he finds the lack of attention towards understanding of the “future” seriously remiss. Anthropology, as the discipline upon which he focuses, is too “past” focused and he argues for a development of a new critical approach that accounts for the future.

One gesture towards creating future-oriented forums for transnational multidisciplinary exchange—that is for these charged forms of both labor[ing] and dream[ing]—has resulted in my creation of *Artistic Research Collaboratives (ARC)*, a multi-year arts research and action project that brings local, national, and international communities together to address social problems through the arts. ARC uses methods drawn from the arts and new media to catalyze cultural diversity, civic engagement, and public diplomacy.

In that context, *ARC on Participatory Choreographies and Our Future Cities* is a set of interlocking site-based projects that explore the significance of waterfronts in the local and transnational geo-cultural imaginary in order to engage local citizens in a series of arts and historical recovery projects that both honor cultural diversity and find ways to build together toward the future.

In *Dark Writing*, Paul Carter argues for a new approach to tracking space, performance, and geography, writing that:

To think the line differently is not only to read—and draw—maps and plans in a new way. It is to think differently about history. To materialize the act of representation is to appreciate that the performances of everyday life can themselves produce change. (Carter 2008: 9)

Increasingly my research, along with that of others, indicates that the connection between the moving body, groups of people, and the built environment across cultures in the context of a range of water issues needs to be more responsive to a variety of contemporary social conditions in relation to “recollection, imagination, and invention” (Carter 2008). This “and” is indispensable, although it is most often forgotten and eclipsed. The impact of advanced technologies and the perpetuation of social inequities are all too often embedded, as if on automatic, in the way the urban landscape is itself constructed.

Advanced technologies are also rapidly redefining what we mean by “space” as the intertwining of both “real” time-space and virtual time-space. Although new architectures could become a fulcrum point for more mobile exchanges between diverse groups, not everyone has equal access to these resources and each new technology can have an unpredictable and differential impact on the urbanscape. Consequently, the relationship between individual need and the built environment of the cityscape must be transformed in order to produce more equitable spaces of public engagement – in the context of performing the *New Sustainability Paradigm* (NSP) – across both the provisional and permanent urban landscapes. Carter notes that we have “lost touch with the choreographic basis of place-making...” [and] he exhorts us to become “diplomat[s]” (Carter 2008) as we navigate the various spheres of human endeavor. This work requires several levels of intervention with implications for new performance practices related to sustainability.

Two current projects gesture toward the possibilities of leveraging culture and education through performance-based methodologies in the context of the “new sustainability paradigm.” *Pier Windows*, a Hong Kong site-based performance installation project at the Kwun Tong Ferry Pier with artists from Hong Kong, the US, and India, focuses on how to generate *participatory cultural heritage* experiences through stories, texts, artifacts, performances, and site-specific works in order to broaden understanding of the specific historical impact of Chinese, American, and Indian cultural heritages on the contemporary identity of the city. As we collect and perform personal, community, and cultural stories about ghosts, water, and the marvelous, we will experience new ways of seeing the city’s environment, its histories, and each other through the literal and metaphorical windows of the Kwun Tong Ferry Pier, an everyday site that links land, water, and people at a transit point for departures and arrivals within and across the corridors of Hong Kong’s cityscape.

This project involves the creation of interactive memory maps. In conversation with historians, geographers, cultural workers, and others, members of the team of these types of participatory cultural heritage experience projects will identify and notate the stories, images, and contours of the local geography that inform important memory sites in each city in relation to a range of stories about the environment. Because memory sites of historical significance do not exist in isolation of important environmental sites, this work also, therefore, requires new understandings of water maps. In conversation with local scientists, ecologists and natural historians, this project also maps Kwun Tong Pier in relation to the various pathways of the city’s current key water sites, hidden linkages, as well as lost histories. And, finally, this project requires a new understanding of interactive architectural threshold maps. It is the architectural thresholds that frame where people can go, how they move, and what they do and do not have access to. Because the urban landscapes have emerged out of a long set of interactions and conditions modulated by the histories of our global cities, we need to engage in a range of practices that alter our patterns of engagement as well as the ways that we imagine our future – that is moving toward new choreographies of the future.

In another project, Cultural Heritage and Performance – Pakistan and the US – each partner begins site-specific cultural heritage research projects in respective

regions: cultural legacies of diverse groups of people along and across specific places, routes, rivers, and seafronts – in Pakistan along the Indus River, and nearby sites, from Kot Diji Fort (Kairpur) to Karachi, and in the US along the Mississippi from Minneapolis to New Orleans with a focus on the interplay between heritage sites, local environments, performance traditions, and daily cultural practices. This research will lead to a series of related theatre and online gallery exhibits as well as exchange and educational components.

In regards to US and Pakistan relations, US Public Diplomacy efforts are geared toward a more effective relationship between governments, businesses, civic organizations, and individuals. While the security concerns between the two nations is well known, increasing importance is being given to economic and cultural ties as Pakistan continues to build its commercial, political, and civic infrastructure. An enormous amount of work has been done on all of these fronts, but the arts have an important role to play, since community theater and other forms of performance place high value on different cultural histories and practices, are embedded in local, national, and international contexts, and require participants to quickly develop a high level of trust and collaboration in order to successfully create and produce community theater and other forms of participatory cultural heritage experiences. Public Diplomacy in its more common forms, aligned with Cultural Diplomacy – as an **active** form of exchange – can provide a very powerful tool for deepening positive relationships between the US and Pakistan.

Within the context of Pakistan and US cross-cultural youth relations, this project will provide programming not currently available through any of the local educational structures. First, in Pakistan, there are limited opportunities for a diverse group of youth to engage together on cross-border projects that promote cultural heritage, performance, youth civic engagement, and cultural entrepreneurship simultaneously. Even less available are program offerings on how to use the arts as a frame for interdisciplinary and interactive learning and problem-solving.

In Pakistan, the lack of such programming, for example, has become quite serious. Since 2001, the government of Pakistan has – for a whole host of reasons I cannot explicate here, but which are familiar to most – focused on the war on terror. Even in the face of Pakistan's 18th Amendment of April 2010, which relocated the federal ministries to all four provinces of Pakistan and which was originally intended to create more opportunity for cultural projects, remain underfunded and international arts collaborations are not funded at all. Very limited youth arts diplomacy programs are available, for instance, to defuse the tension regarding India and Pakistan's conflicts and to help create collectively cross-border projects that build mutual understanding and cultural harmony. In the US, there are many US youth, including South and Central Asian American youth, who are not familiar with the cultures across South-Central Asia, have only the most general, and often erroneous, understanding of the historical and cultural links between the US and South/Central Asia, and certainly have not had the opportunity to work across borders with youth on significant projects. Post 9/11, it is more important than ever for the youth groups to engage in new formats for gaining a better understanding of each other and for working together on cross-border collaboration.

In regards to the broader South-Central Asia region, there has been, over the years, an emphasis on transforming regional relations through the opening up of the New Silk Road—a vision outlined by then Secretary of State Hillary Clinton, and currently, under further development by the US State Department. The emerging trans-border economic and industry driven projects have already begun to spur regional rebuilding and economic growth in the region. However, at the same time, a range of projects focused on communication and a collective cultural re-visioning are required for the more complete the transformation of the region. In order to do so, the work in the cultural sector needs to be re-valued as both as economically viable (in the context of job generation) and as sets of active engagements that communities can leverage as tools for empowerment, civic engagement, various forms of diplomacy, and new modes of artistic production that sustain and support the growth of a civil society.

Pressingly, as the natural and urban landscape across the New Silk Road are (re-) developed to accommodate industry change, cultural heritages, as the legacy(ies) of a group or community, which encompass physical, intangible and environmental aspects, must be safeguarded through a range of “people-to-people activities.” There is now, given globalization and the new technologies of communication, a greater opportunity to engage in cultural translations and cross-cultural production and understanding.

As understanding about the current status along with the potential of participatory cultural heritage grows, projects such as this will give stakeholders in South and Central Asia opportunities to investigate new forms of social and cultural entrepreneurship that might develop viable cross border cultural products, including Muslim, Mughal, and Buddhist heritage sites and pilgrim trails, eco-tourism, university-linked research and learning centers, and new forms of performance production. These developments require not only close cooperation of all parties, but also the formation of new social and cultural working groups that can only come into being through hands-on, and minds-on, creative work together.

Through ARC, as we research cultural heritage sites and make works of community art together, we come to better understand each other’s cultural assumptions, principles, and practices, much more deeply and specifically. “Performing the new sustainability paradigm” is, simultaneously, historically and culturally situated and a translocal phenomenon that travels. History, culture, and translocality cannot be thought apart from one another and this dimension of cross-cultural networking will be the focus of this work. These translocal projects fold together the practices, source material, and multi-sited engagements, tracing forms of multiple geographies.

These hybrid approaches “cut across” locations, performance genealogies and histories, and at the same time they also “cut into” local cultural histories in order to provide new perspectives on current social conditions and issues. The activation of translocality as both critical intervention and creative practice re-calibrates what the arts can do and stages new forms of transnational and mobile identities. The transections of the cut, so to speak, enable a generativity of theatrical forms and multiply-sited receptions that accomplishes very pragmatic cultural work as the local and the



global, the at-home and the nomadic, are both borne along unexpected pathways by the action of translocal performances.

Over the past 6 years, I have begun to develop performance work that is site-specific—that is over time deeply informed by the vernacular of local theatres, cultural practices of water, and geographies and environments. I have extended the reach of scholarly and artistic collaborations that generates an approach to this research that reflects a “translocal geography” (Brickell and Datta 2011) with implications for performing the new sustainability paradigm, one that crafts a postcolonial ecology for (transnational) theatres.

### 8.3 Conclusion

We need, at this moment in our globalized and local histories around “performing the new sustainability paradigm” to develop new theatrical practices and forms of cultural diplomacy that attend to exchanges across a set of transnational pathways. Arjan Appadurai writes that “The imagination is now central to all forms of agency, is itself a social fact, and is the key component of the new global order” (Appadurai 1996) and imagination must, therefore, interact always with the rapidly changing cultural, political, and global flux caused by technology, capitalism, and the movement of people, ideas, money, and products.

Given these transnational flows, there are pressing questions regarding the emergence of an alternative and more sustainable performative cartography of water and for a range of related practices. Fischer-Lichte has noted: “The interweaving of cultures in performances quite often creates an innovative performance aesthetic, which establishes and gives shape to new collaborative policies in society. It probes the emergence, stabilization, and de-stabilization of cultural identity. Here, the aesthetic and the political merge” (Fischer-Lichte 2009). We must create new stages—in the theaters, in university halls, in the city and village streets, and on the web—for telling our (local and global) stories in ways that capture the “stirring but intangible music” and that move us to act toward a “new sustainability.” Performing the new sustainability—in the everyday, in the literary, through ritual, and through staged performance—provides a space for creating different maps, different networks of artistic and community action, and different ways of speaking with one another as we toward what the GSG has termed “a new planetary transition toward a humane, just and ecological future” (Raskin et al. 2002).

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# Chapter 9

## The Role of the Different Players for the Great Transition Towards the NSP

**Odile Schwarz-Herion**

**Abstract** There are public, semi-public, and private players which can support the development towards the New Sustainability Paradigm (NSP). This includes the state which has the formal power, furthermore private enterprises, public-private partnerships, scientists, NGOs, Think Tanks, Round Table Groups, Media, as well as cultural and religious players. Each one of these players has the responsibility to make its contribution to fostering the development towards the NSP. Private enterprises can contribute to environmental protection by environmental management and to social fairness by the creation of jobs. NGOs as part of civil society are supposed to play a key role for Sustainable Development in general and the NSP in particular, but can also be abused by lobbyists. Since accurate information is an essential base for social peace, democracy, and environmental protection, the media have a high level of responsibility. Scientists and cultural players can also contribute significantly to make the world a better and more sustainable place.

**Keywords** State • Private enterprises • Public-Private-Partnerships (PPP) • NGOs • Think Tanks • Round Table Groups • Scientists • Media • Cultural players • Societas Jesu (SJ) • Sovereign Military Order of Malta (SMOM)

There are different players which can contribute to Sustainable Development and thus work towards the implementation of the NSP:

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## 9.1 The Role of the State

The state has the possibility and the duty to set the direction for the NSP by the creation of adequate laws, to control that the laws are respected, and to take certain measures and sanctions in case of non-compliance. Nevertheless, since the elected representatives often have no or very little expertise in their area of responsibility, they regularly rely on consultants. Behind these consultants are frequently lobbyists with selfish interests who have no interest to satisfy the people.

## 9.2 The Role of Private Enterprises

Private enterprises should use every opportunity to optimize environmental protection throughout the supply chain (especially large global enterprises), to take care of social fairness including fair recruitment processes, human and respectful treatment of employees, adequate wages in the framework of their economic possibilities, and to use the full potential of their employees in favor of all three sustainability pillars. In the case of transnational or even global enterprises, this might also include the choice of sustainable partner enterprises and regular stick controls in their partner companies and subsidiaries.

## 9.3 Semi-Public Players (Public Private Partnerships)

In times of tight budgets, many states tend to delegate public functions to private providers. This often leads to a lack of transparency, unclear competencies, and, in the worst case, to unbridled lobbying or even to situations in which former employees of foreign secret services spy on countries and private enterprises by abusing PPPs (Blancke 2011). One negative example for an ethically and legally highly problematic PPP is featured in the following article: “Blackwater: CIA Assassins? The mercenary firm has a long and dark history with the CIA. Were they Bush’s and Cheney’s private hit men?” (Scahill 2009; see also Chap. 5 about Blackwater which was later renamed into Academi). This problem has been known since quite some time. James Carroll, the son of the founder of the DIA,<sup>1</sup> stated back in 2007: “Since Ronald Reagan, conservatives have preached the doctrine that the nation’s basic needs can best be met by private enterprises. The profit motive trumps any public ideal” (Blancke 2011).

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<sup>1</sup> Defense Intelligence Agency, a U.S. military intelligence service.

## 9.4 Scientists and Inventors (Inside and Outside Universities)

The role of scientists and inventors is essential for peace, democratic participation of citizens,<sup>2</sup> and environmental protection. Research & Development in, e.g., the medical or pharmaceutical sector or in the sector of green technologies can lead to better health, a higher lifespan, and a healthier environment.

Sometimes, however, medical and technological innovations can also be abused for inhuman purposes or for the deliberate destruction of nature (e.g., “Operation Paperclip”). In his book “Der bedrohte Friede” (“The threatened Peace”), Friedrich v. Weizsäcker reports how the scientists who detected the second neutron and the uranium fissure felt abused after the nuclear bombs had been thrown on Hiroshima and Nagasaki (v. Weizsäcker 1994).

## 9.5 The Role of Multinational Players Including NGOs

Since NGOs are non-profit organizations, they seem to be ideal players for creativity and networking. The Council on Foreign Relations (CFR) member Brzezinski stated that not only multinational corporations and scientific communities but also transnational NGOs created an informal global system, “inherently congenial to more institutionalized and inclusive global cooperation” (Brzezinski 1997).

From the bright side, this concedes a higher degree of responsibility to civil society in ethical and social questions. People should not leave everything to political leaders. From the dark side, NGOs can also be lobbyism-driven – a definitive fact which goes above all for some shady NGOs in the Sustainable Development sector (Koire 2011).

## 9.6 The Role of Think Tanks and Round Table Groups

Theoretically, Think Tanks and Round Table Groups might develop concepts which might support democracy and Sustainable development. Nevertheless, some Think Tanks, such as Tavistock, have traditionally been connected to big banking and are supposed to have been responsible for severe human right violations (Mullins 1983).

Other Think Tanks, such as the Rand Corporation, have developed psychological weapons which might be useful in times of war to protect oneself, but are disastrous if applied to undermine democracy because certain psychological techniques are generally suitable to steer any meeting toward a predetermined end. One of these

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<sup>2</sup>e.g., in the past the invention of the printing press and in modern times the invention of the Internet.

techniques is the Delphi Technique which was developed by the RAND Corporation for the U.S. Department of Defense back in the 1950s – originally designed for use as a psychological weapon during the cold war (Burns 2002). The Delphi Technique can be applied in the following way: Sometimes, citizens are invited to “participate” in various forms of meetings, councils, or boards to “help determine” public policy in one field or another. They are supposedly involved in envisioned projects to help officials make a final decision, but there is already someone destined to lead the meeting who pretends to be a neutral facilitator, but actually is instructed by those who have invited the general public to the meeting to make sure that the conclusions reached during the meeting are in accord with a plan already decided upon (Burns 2002). Sometimes, these persons are even “smuggled” into the audience (Koire 2011).

Similarly, Round Table Groups can equally be abused by influential circles in favor of their own selfish interests and have often been organized as “semi-secret discussion and lobbying groups” whose members might partly have had idealistic goals in mind but which were finally used to push imperialistic agendas of the Anglo-Saxon establishment like those Round Table groups which were financed by associates and followers of Cecil Rhodes (Quigley 1966). Public Round Table groups, on the other hand, might help to develop innovative concepts in favor of Sustainable Development and share their ideas with the general public, thus possibly paving the way for the New Sustainability Paradigm.

## 9.7 Media

The task of the media is to objectively and fully inform about politics, economy, and environment. The basic condition for this is that media are investigative, do not engage in speculation, and avoid getting manipulated by lobbyists. CFR member Brzezinski criticized that after the September 11, 2001 incident “profit-oriented mass media exploited public fears allowing for the demagogically inclined Bush administration to spend 8 years remaking the United States into a crusader state. The ‘war on terror’ became synonymous with foreign policy and the United States...” (Brzezinski 2012).

One of the most dangerous acts in the media sector is the use of stereotypes and the artificial creation of dichotomies between the poor and the rich, between old and young, between Christians and Muslims, between right-wing and left-wing politics, etc. Sometimes, one might get the impression that some media players try to help the establishment to implement the ancient rule of the ruling class: “divide et impera” (= divide and rule).

## 9.8 Cultural Players (Writers, Actors, Dancers, Musicians, Painters, etc.)

Artists can be very influential players due to their potential to sensitize the general public for environmental and social problems and to foster cultural exchange, tolerance, and partnerships across the globe. The approaches shown in Chap. 8 are very promising if they are continued with this high level of commitment and if they are widely communicated and advertised in the media in an adequate way. Cultural players might significantly contribute to the fulfillment of different points of the Johannesburg Declaration – especially of point 16 (diversity, coupled with collective strength), point 17 (“...human solidarity, dialogue, and cooperation among the world’s civilization and peoples, irrespective of race, disabilities, religion, language, culture, or tradition...”), and point 19 by minimizing or even fighting peacefully “...terrorism, intolerance and incitement to racial, ethnic, religious and other hatreds...” (United Nations 2002).

## 9.9 Religion

Religious players can be very powerful. While some religious players (clerics) might sensitize people for social and ecological issues or comfort people in difficult situations, history (including recent history) has shown how easily religion can be abused as a tool of power by nebulizing people’s brains, by inspiring a general sense of guilt into people to manipulate them, and by spying on influential people in order to blackmail them (see Chaps. 3, 5, and 7).

This goes especially for influential members of those religious orders which have traditionally been organized and are still organized in a military way, such as the Knights of Malta and the Jesuits. The “Sovereign Military Hospitaller Order of St. John of Jerusalem of Rhodes and of Malta” (SMOM) aka “Sovereign Military Order of Malta”, or simply “Order of Malta”, created in the Middle-Ages and still active today (Order of Malta 2014a), does not only own real estate in the Vatican but is also a Sovereign subject of international law with its own government, issuing its own stamps and creating public institutions; the Order’s Grand Master governing the Order both as a sovereign and religious head, is elected for life, within the professed knights in perpetual vows (Order of Malta 2014b). The Order of Malta maintains accredited diplomatic missions in almost all states on earth – a total of more than 100 countries (Order of Malta 2014c). Additionally, the order has accredited representatives in several states (Order of Malta 2014c) and relations at Ambassador level within the European Union, permanent observer missions to the United Nations and their specialized agencies including ESCAP,<sup>3</sup> FAO,<sup>4</sup>

<sup>3</sup>United Nations Economic and Social Commission for Asia and the Pacific (Bangkok).

<sup>4</sup>Food and Agricultural Organization of the United Nations (Rome).

IAEA<sup>5</sup>, and IFAD<sup>6</sup> (Order of Malta 2014d), giving them quite some influence on politics.

Similarly, the influence of the Jesuits (SJ) on politics seems to remain unbroken until today. According to sources from Jesuit circles, the current pope, the Argentinian Jorge Bergoglio alias Pope Francis I, still asked that “Father Nicolas”<sup>7</sup> should treat him like ‘any other Jesuit’ after he had become Pope Francis (Martin 2013).

Modern Jesuits do not only play an essential role in the Vatican, but are also firmly rooted in international politics: the EU council president Hermann Rompuy said in public: ‘We are all Jesuits’, pointing out that he was “developing the architecture for the future Europe” (Eppink 2012). This statement was even published in the ‘Katholiek Nieuwsblad’ from Den Bosch, Netherlands, on 10 October 2012 (Eppink 2012).

Apparently, both orders (SJ and the Order of Malta) closely cooperate with each other: the Jesuit-shaped José Manuel Barroso from Georgetown University (Wikipedia 2014), received the Collane of the Order of the Merit “Pro Merito Melitensi” from the Knights of Malta which was handed out to him personally by Grand Master Fra’ Matthew Festing (Order of Malta 2010).

While the Knights of Malta like to highlight their medical and humanitarian activities and preach poverty and humility, the highly hierarchical structure of the order, as shown on their website speaks another language, clearly contradicting social fairness and democratic principles (Order of Malta 2014a). Nevertheless, many of those who are members of these orders (SJ and SMOM) – especially those in the lower ranks – are true idealists who might actually believe to serve humankind by their activities without being aware of being abused on several accounts by those in the highest ranks of the order in favor of sometimes rather questionable agendas.

The political networks of these hierarchically structured religious orders, organized in a military way and boasting with their medieval legacy of the crusaders, might pose a serious obstacle to the Great Transition to sustainable global democracy and thus should not be taken lightly by a vigilant enlightened civil society consisting of many humans who have grown up in modern democratic and laical states.

Each one of the players described above should first and foremost fulfill its main responsibilities. In a second step, the players might find ways to cooperate with each other to work jointly towards the NSP. Finally, the interplay of the different players might reach positive synergy effects.

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<sup>5</sup>International Atomic Energy Agency (Vienna).

<sup>6</sup>International Fund for Agricultural Development (Rome).

<sup>7</sup>Adolfo Nicolas.

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**Part II**  
**Ecological Challenges for the New**  
**Sustainability Paradigm**



# Chapter 10

## Ecological Pillar of Sustainability and Its Significance for the NSP: Major Problems

**Odile Schwarz-Herion**

**Abstract** Currently, humankind faces a variety of environmental problems. Some problems are of particular concern. Especially over the last decade, extreme weather events have accumulated. The disastrous Tsunami catastrophes in Indonesia and Japan as well as other natural disasters, such as hurricanes, heat waves, and droughts, killed tens of thousands of people, injured others, made many people lose their homes and livelihood, and scared people all over the world. It is obvious that this kind of disasters regularly impact water and food supply and thus are life-threatening for millions of human beings and animals, usually impacting all three pillars of Sustainability. There is an ongoing discussion about the question to which extent these factors are due to anthropogenic influence because weather is a complex and chaotic system. Notwithstanding, climate change is not the only problem of concern to humankind. There are many other key issues including urgent challenges in the food and water sector as food and water are the base of all life on earth.

**Keywords** Tsunami catastrophes • Hurricanes • Heat waves • Extreme weather phenomena • Anthropogenic climate change • Climate engineering

There are huge challenges for humankind in the sector of environmental protection. Apparently, extreme weather events accumulate since the late 1990s: The flood of the century in Middle- and East Europe in 2002, the extreme heat wave with more than 30,000 dead in Middle- and East Europe in 2003, the disastrous tsunami catastrophe in Southeast Asia in December 26, 2004, as well as the Japanese seaquake and tsunami catastrophe in March 11, 2011 which affected the region around Fukushima especially hard.

All these catastrophes led to a significant loss of human lives, damaged the natural environment, and caused costs amounting to billions of US dollars. The tsunami which struck Southeast Asia on December 26, 2004, killed about 226,000 people; additionally, 150,000 people were injured or suffered from

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infectious diseases. Five million people lost their homes; one million people were deprived of their living base without access to food and water. In sum, the estimated damage came to ca. \$7.5 billion (Pickrell 2005). Tsunamis regularly uproot trees and plants, destroy animal habitats like nesting sites for birds, kill animals by drowning, and cause pollution due to dangerous chemicals which are washed away into the sea, poisoning marine life and having secondary environmental effects, such as salinization of water bodies and the contamination of soil and water. Other extreme weather events are hurricanes, heat waves, and droughts, especially in developing countries regularly impacting water and food supply and thus posing a threat for the lives of humans and animals (Pickrell 2005).

Nevertheless, the statistical accumulation of such extreme weather phenomena which are mostly limited in time and region does not necessarily lead to the compelling conclusion that this is an irrefutable evidence for climate change because the climate – in contrast to the weather – represents a complex, chaotic system by which significant changes take place only over very long periods (usually 100 years and more). One must also take into consideration that the climate reports of the IPCC represent computer-based scenarios, i.e., prognoses about climate changes which can eventually be expected for the next 50–100 years. Since these future scenarios are erroneously depicted as an immediate threat in the discussion about climate change in the media and in politics, an unnecessary panic is created, thus blocking an objectively sober discussion (Spencer 2007).

As some extreme weather phenomena are often connected to changes in the atmosphere which are partly attributable to human impacts (Greenhouse Gases GHGs/ acid rain/ozone hole), the protection of the atmosphere is of decisive importance. Therefore, the first paragraph of the subsequent chapter will be dedicated to changes in the atmosphere and measures in favor of protecting the atmosphere against harmful impacts. This includes the discussion on how to deal with harmful anthropogenic changes in the atmosphere and on how to counter these changes by technological solutions. In this connection, it is a highly controversial issue, if and in how far targeted weather manipulation, the so-called geo-engineering, eco-engineering, or climate engineering does more harm than good to the environment. It should be noted that climate engineering which is conducted over longer periods can lead to an anthropogenic climate change whose consequences are difficult to estimate (Ott 2011).

Other topics which will be covered in Chap. 2 are water security, energy security, biodiversity, eco-terrorism, and bioterrorism. The limited scope of this book allows addressing only some representative aspects, examples, and solving approaches for each of these problems.

Taking into consideration that food is the base of all life on earth, Chap. 3 will address urgent challenges in the food sector. This chapter, written by an experienced and internationally acknowledged food expert from New Zealand, will close this essential part of the book at hand, covering the most urgent ecological problems for the NSP.

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# Chapter 11

## Urgent Ecological Problems for the NSP

**Odile Schwarz-Herion**

**Abstract** The protection of the atmosphere is one of the greatest challenges of our time. The discussion of anthropogenic climate change due to greenhouse gases is not the only problem in this connection. Another issue to be controversially discussed is climate engineering (CE) which can be used to the benefit of mankind by mitigating extreme weather patterns, but might also be abused for military purposes or by eco-terrorists to damage the climate, the natural environment, humankind, and wildlife. Water security is another key issue of our time to which particular attention must be paid because water is the base of all life on earth. Moreover, problems of toxic and otherwise noxious emissions in industry and street traffic along with energy security equally require innovative solutions. In the choice of renewable energies, all pillars of Sustainable Development should be taken into consideration. Furthermore, the preservation of biodiversity is essential to sustain a healthy and stable environment. Finally, refined innovations in the field of bioterrorism – sometimes committed under the cloak of philanthropy – pose a serious threat to humankind and all life on earth.

**Keywords** Atmosphere protection • Greenhouse gas emissions • Climate engineering (CE) • Hostile use of Environmental Modification Techniques • 1977 ENMOD Convention • Toxic emissions • Energy security • Water security • Biodiversity • Bioterrorism

### 11.1 Protection of the Atmosphere: Anthropogenic Influence and Counter-Measures

Since several years, the mass media are showing scary pictures of black smoke and white vapor coming out of the chimneys of industrial production sites in connection with the discussion concerning “climate change”. These pictures are supposed to

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illustrate that humankind, especially industry, is steadily blowing “environmentally harmful greenhouse gases”, above all CO<sub>2</sub>, into the atmosphere. These pictures are misleading because CO<sub>2</sub> is an invisible gas. Ironically, the pictures of black smoke from chimneys displayed in the media and allegedly demonstrating CO<sub>2</sub> emissions show smoke mixed with tiny soot particles which only emerge when carbon is *not* fully burnt to CO<sub>2</sub>. The white clouds from the chimneys are merely condensed water vapor and thus not more dangerous than white fair-weather clouds in the blue sky. These pictures are supposed to show the dramatic impact of CO<sub>2</sub>, suggesting to clueless television viewers or newspaper readers that CO<sub>2</sub> is a toxic gas, although CO<sub>2</sub> is non-toxic – in contrast to carbon monoxide (CO) as a combustion pollutant which is formed when carbon in fuels does not burn completely and which can be fatal for humans and animals (National Center for Healthy Housing 2008). Actually, CO<sub>2</sub> is needed to sustain life on earth (Schwarz-Herion 2005, with further references).

In how far the so-called greenhouse-gases (GHGs), especially CO<sub>2</sub>, might be responsible for global warming or climate change, respectively, shall be explained hereinafter: Naturally occurring GHGs in the atmosphere, e.g., water vapor (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), ozone (O<sub>3</sub>), and methane (CH<sub>4</sub>), work like the glass sheet of a greenhouse, allowing the short-wave UV radiation of the sun to pass almost unhindered, whereas the long-wave infrared radiation (warming radiation) is mainly absorbed by the surface of the earth. This way, the necessary average temperature of about 15 °C on earth is stabilized. If the concentration of the GHGs in the earth’s atmosphere is significantly increased by natural or man-made influence, the radiation equilibrium in the earth’s atmosphere can be disturbed, possibly resulting into a global increase in the surface temperature of the earth (Schwarz-Herion 2005, with further references).

The results of climate research actually show an increase in the global surface temperature of the earth since about 1500 which has intensified increasingly since 1800. Controversial is only the question of whether this global warming has anthropogenic or natural causes. As most scientists today are convinced that there are strong indicators that anthropogenic CO<sub>2</sub> emission is the most important cause of climate change and extreme weather patterns, measures to mitigate the effects of GHGs, above all CO<sub>2</sub>, have been taken (Schwarz-Herion 2005, with further references).

Measures to reduce the CO<sub>2</sub> emissions included the building of low-consumption motor vehicles or developing alternative drives which would reduce the CO<sub>2</sub> emissions significantly or would prevent them completely (hybrid cars, electric cars, fuel cell cars, etc.). Respective measures have also been implemented in the field of energy production by gradually replacing power plants based on fossil energy sources (coal, fuel, and natural gas) by renewable energies (e.g., wind energy, water power, and solar energy). Suitable measures have also been taken in private households (thermal insulation, solar roofs, and economical household appliances). The same applied also for industrial plants. One problem was and still is to implement appropriate measures in democratic states in the framework of a free market economy without restricting the liberty of the individual or the economic agents too much. As compromise formula, the emission trade, i.e., the trade with emission certificates, seemed advisable. The basic idea was to confer “marketable rights for the use of the environment which would entitle someone to the emission of a certain

amount of, e.g., CO<sub>2</sub> within and outside of certain spatial and temporal boundaries” (Schwarz-Herion 2005, with further references). This emission trade, however, was soon discredited by large-scale fraud schemes in trading CO<sub>2</sub> emission certificates via non-EU countries as transit countries, targeted at circumventing EU transaction fees. Among others, Germany’s biggest banking house was also involved into this fraudulent system (Kafsack 2009).

Another measure to counter the increase in the global average temperature is the so-called geo-engineering or climate engineering (CE). On the Royal Society’s website, the following definition of geo-engineering can be found under the heading “Geo-engineering the Climate: Science, Governance, and Uncertainty”: “...geo-engineering, [is] defined here as the deliberate large-scale manipulation of the planetary environment to counteract anthropogenic climate change”. According to this source, geo-engineering is divided into two basic categories: “Carbon Dioxide Removal (CDR) techniques which remove CO<sub>2</sub> from the atmosphere ...” and “Solar Radiation Management (SRM) techniques that reflect a small percentage of the sun’s light and heat back into space ...” (The Royal Society 2009).

CDR-methods include, among others, “...land use management to protect or enhance land carbon sinks, the use of biomass for carbon sequestration as well as a carbon neutral energy source, acceleration of natural geological weathering processes that remove CO<sub>2</sub> from the atmosphere ...” (The Royal Society 2009). SRM can be differentiated by (a) Space-based reflectors (b) Technical production of clouds, and (c) Introducing large amounts of sulfates into the atmosphere (Ott 2011a).

From the two aforementioned types of geo-engineering, from now on called “climate engineering” (CE), because it concerns the manipulation of the climate, most climate experts and critics of the CE consider the CDR, except from the problematic CO<sub>2</sub> sequestration (Raskin et al. 2010), basically less problematic than the SRM. First, because CDR fights the cause, whereas SRM only treats the symptoms, and second, because CDR meshes less deeply into the nature than the SRM which can bring about undesired climate change for humans and nature under certain circumstances (Ott 2011a).

The biggest and most hotly debated problem in connection with SRM is the introduction of sulfate aerosols into the atmosphere. This would nullify what has been done some decades ago by using desulfurization technologies: the protection against acid rain. The reduction of solar radiation as intended by this technology (global dimming) would have serious impact on humans and wildlife. The effects of the reduction of solar radiation over large areas could be observed in the past during volcanic eruptions (Ott 2011a) or by the torching of large oil fields. It seems especially alarming that the spraying of harmful aerosols is extensively discussed in military circles and in connection with military applications in scientific papers (McClellan et al. 2011). This suggests that CE can also be applied for military purposes (Westing 2013).

According to Brzezinski, the use of CE for military purposes was already identified very early. In his book “Between Two Ages”, Zbigniew Brzezinski covered already the military application of weather modification technologies back in 1970: “Technology will make available, to the leaders of major nations, techniques for conducting secret warfare, of which only a bare minimum of the security forces

need be appraised ... Techniques of weather modification could be employed to produce prolonged periods of drought or storm” (Brzezinski 1970). In the late 1970s, the danger of hostile weather modification was already considered so serious that a UN convention, the *Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques* (ENMOD), banning “... military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects...” was approved by resolution 31/72 of the General Assembly of the United Nations on 10 December 1976 and entered into force on 5 October 1978 (UNOG – The United Nations Office at Geneva 1977).

In 1987, the Brundtland Report “Our Common Future” warned against once another kind of hostile manipulation of natural systems for military purposes in Nr. 84 within the subsection “Managing the Commons”, mentioning that there were “... growing concerns about management of orbital space, centering on using satellite technology for monitoring planetary systems...” and warning against the “...orbiting and testing of weapons in space...” (World Commission on Environment and Development 1987).

On April 28, 1997, the former US Secretary of Defense, William S. Cohen, warned expressly against environmentally destructive weapons including bioterrorism (see Sect. 11.5) and eco-terrorism by hostile climate manipulation in his answer to a question on how B' nai Brith should deal with last week's scare in Washington in a public discussion following his keynote address at the Conference on Terrorism, Weapons of Mass Destruction, and U.S. Strategy at Georgia University: “Some countries have been trying to construct something like an Ebola Virus, and that would be a very dangerous phenomenon ... Others are engaging even in an eco-type of terrorism whereby they can alter the climate, set off earthquakes, volcanoes, remotely through the use of electromagnetic waves...” (U.S. Department of Defense 1997).

In January 1999, in a report on the environment, security, and foreign policy, the European Parliament passed a motion for a resolution along with an explanatory statement, labeling HAARP (High Frequency Active Auroral Research Project) a “global concern” due to its “...far reaching impact on the environment...” and calling for the examination of its ecological and ethical implications “before any further research and testing...” which should be undertaken by “independent international bodies” (European Parliament 1999).

HAARP was an arctic device near the city Gakona (Alaska), created in the 1980s to explore the upper atmosphere, featuring a high-performance radio-frequency (HF) radio station, an apparatus for examining the ionosphere, also known as the Ionospheric Research Instrument (IRI), called “heater” which triggers artificial auroras (Stanford VLF Group 2010). The electronic fields of the HAARP system are supposed to influence the weather by hampering or diverting the jet stream flow in the Northern Hemisphere. The jetstream, blowing in the troposphere, is a ribbon of very fast moving winds reaching up to 200 miles an hour (Hamilton 2013). The project was supported by the U.S. Air Force, U.S. Navy, as well as by a large number of universities and private companies. Even the Department of Defense (DoD) supported the HAARP Project, as the research results and their possible applications

were of interest to the national security of the United States (Rademacher 2012). Nevertheless, since 2013, the plant in Alaska has been supposed to shut down; a part of their tasks is expected to be taken over by DARPA in 2014 (ARRL 2013).

Generally, the issue of intentional environmental modification by climate engineering is still largely unknown to the general public. Actually, the issues of climate engineering and hostile environmental manipulation techniques were missing on the agendas of most major environmental conferences. The UN Agenda 21 and the UN Millennium Development Goals (MDGs) have largely ignored these issues, whereas UNEP at least had taken a decision regarding the ‘application of environmental norms to military establishments’ in May 1993, encouraging national governments to enact national laws for the military sector (European Parliament 1999). Thus, UNEP at least recognized the risks of modern military technologies to the environment which have the potential to destroy the natural environment and all life on earth.

Due to the all-dominating discussion about CO<sub>2</sub> and the greenhouse effect, other emissions (e.g., SO<sub>2</sub>, NO<sub>x</sub>, CO, and particulate matter) which burden the environment including the atmosphere are widely ignored.

One of the most significant emission problems of cities in industrialized countries and even more in Asian countries (especially in China) is the emission of tiny particles from traffic and industrial emissions which can be inhaled deeply into the lungs, frequently landing on the lung tissue and thus causing severe damage. Experts on environmental epidemiology found out that every 10 µg increase of 2.5 µm particles per cubic meter of air was associated with a 37 % rate of death from lung cancer (Powell 2014). The problem of tiny particle emissions from industrial emissions and traffic emissions can partly be solved by the use of fine dust filters.

Industrial SO<sub>2</sub> emissions can be lowered by reducing the sulfur content of the fuel before combustion, sulfur removal during combustion, and the removal of sulfur after combustion by the so-called Flue Gas Desulfurization FGD (U.K. *Enviropeedia n.d.*). Furthermore, sustainable city planning which will be treated in the third part of this book can equally help to keep toxic and otherwise noxious emissions low. Other noxious emissions from industry and traffic are NO<sub>x</sub>, soot particles, and hydrocarbon residues.

NO<sub>x</sub> emissions of Euro IV and V heavy-duty trucks and buses equipped with selective catalytic reduction (SCR) systems during in-use driving, especially in urban traffic, have a high impact on the air quality in many European cities. According to experts, NO<sub>x</sub> emissions can be lowered by mandated test procedures encompassing both cold-start and hot-start testing (Lowell and Kamakaté 2012).

In the traffic sector, sustainable cars – especially cars with alternative drives (e.g., hybrid cars, electric cars, and fuel cell cars) – can help to reduce emissions. Some sustainable cars, such as the Mahindra Reva, additionally have a size and design which makes them particularly suitable for Asia’s crowded cities and furthermore affordable (Dalal and Sen 2014). Nevertheless, it is important to increase awareness about the fact that electric cars are only really sustainable when they are run by fully renewable energies (see Sect. 11.3).



## 11.2 Water Security

“Alles ist aus dem Wasser entsprungen. Alles wird durch das Wasser erhalten!” (“Everything has arisen from water. Everything is kept alive by the water!”) This quote from Johann Wolfgang von Goethe is used as a motto by a local German water agency (Gemeindewerke Niefern-Öschelbronn 2009). Actually, no life is possible without water. Water is our most important elixir, indispensable for the very survival of humankind.

Nevertheless, many people all over the globe still do not have access to safe drinking water. According to current estimates, ca. 884 million people in the world lack access to safe water supplies; 3.5 million people die each year from water-related disease. Furthermore, in many developing countries women and girls walk on average over 3.5 miles every day to fetch water, often spending more than 15 h per week to gather water. Every 20 s, a child dies from a water-related disease. These problems are only some of 11 significant points addressed in an internet appeal to tackle a campaign to solve these global water issues (DoSomething.org 2014).

In countries with scarce water resources, people get rather inventive in finding efficient ways to save water in agriculture and viticulture. This includes, e.g., irrigation systems with water tubes put into the earth to water the root of the plant directly from within the earth and planting vineyards close to the sea, using water vapor from the sea to water the plants in those coastal regions with low rainfall as well as the use of the treadle pump as a low-cost water raising device, facilitating hunger and poverty eradication even in the world’s poorest and hungriest areas which has proven to be very successful in many countries including Bangladesh, India, Zambia, Kenya, and Tanzania (Pereira et al. 2007).

In order to win safe water in sufficient quantities, drinking water treatment is indispensable. The kind of treatment depends from different factors including the quality of the source water, e.g., ground water or surface water (United States Environmental Agency 2012). Usually, the treatment process consists of coagulation (removing dirt and other particles suspended in water), sedimentation (heavy particles settling to the bottom), filtration (water passing through filters, some made of layers of sand, gravel, and charcoal that help remove even smaller particles), disinfection (e.g., by adding a small amount of chlorine), and storage, i.e., placing water in a closed tank or reservoir for disinfection before the water flows through pipes to homes and businesses in the community (United States Environmental Protection Agency 2012).

Sometimes, water scarcity leads to fraudulent activities. Some bottled-water companies act in a highly unethical way. A certain beverage company with franchises all over the world took water from municipal sources during level 4 droughts in the southeast including Atlanta when the residents were asked to reduce their water consumption by the governor who encouraged them to pray for rain while allowing the private beverage company to take the municipal water and sell it (Ott 2011b).

Public awareness of the fact that water is essential for human life should be raised all over the globe. This can be done by sensitizing the general public all over the globe for water issues by cultural and diplomatic strategies as mentioned in

Chap. 8 and by launching citizen initiatives to remind business people and politicians that water is a human right, not a commodity, as, e.g., done by the first European Citizen Movement *Right2water* in Europe (Citizen's Committee 2014).

When the European Commission promoted water privatization in countries using the bailout plan as a condition to continue receiving the aid funds, it was criticized for having “lost touch with reality”, blamed for going “to the extreme of ignoring the democratic will of the people”, and accused of “violating key articles of the EU Treaty which clearly requires the EU’s neutrality regarding water ownership” (Ralli 2012). The European Commission was asked to “...explain the contradiction between the Troika’s suggestions to privatize water in Greece and the Commission’s obligation to stay neutral on this matter...” (Ralli 2012).

After the First European Citizens’ Initiative managed to motivate nearly 1.7 million signatories to bring their voices to Brussels to say “water is a human right not a commodity to be privatized” (Germanos 2014), EU Commissioner Barnier stated: “For months now, there have been reports that the European Commission is trying to privatize water by the back door, through its proposal on concessions. This has never been the intention. (...) That is why the best solution now appears to remove water from the scope of the concessions directive”. Although water privatization has been stopped by the EU commission for now, some Europeans are still afraid, that those who have been pushing for the privatization of drinking water all the time might still try to implement a gradual privatization through the backdoor (Direct Democracy Ireland 2014).

In any case, water privatization did not work in the past, leading, e.g., to the remunicipalization of water services in Paris due to the negative experiences (Ralli 2012). The privatization or even monopolization of drinking water as an essential naturally occurring public good by private players would involve the risk that humankind might slip into slavery by making their life dependent on those who own the water resources and would most probably lead to the permanent implementation of the Fortress World scenario rather than to the NSP scenario.

If the UN’s forecast that there will supposedly be 9.6 billion people on earth by 2050, based on its medium growth scenario (McDermott 2013), is realistic, humankind will face additional challenges to find solutions in favor of water safety. This requires further technological innovations to win sufficient quantities of safe water. Although currently still very costly and emission intensive due to the high amount of energy required by this technology and the impact it might have on marine organisms (Miller 2011), desalination of sea water is becoming an increasingly attractive option, offered by a range of companies including *Velolia Environment*, *Doosan*, and *GE* (Pankratz 2012). Leading suppliers of power and automation solutions to the water sector, such as *ABB*, provide integrated and optimized ICE (instrumentation, control and electrical) systems along with a range of automation products in favor of energy efficiency, productivity, and reliability of plant assets (ABB 2010).

In any case, seawater desalination might be a realistic option if water scarcity threatens the survival of human beings and animals. Annual conferences about water reuse and desalination (*Wateruse Research Foundation* 2014) and courses for engineers about renewable energy desalination, e.g., the EDS master courses (*European Desalination Society* 2014) provide a realistic hope for innovations in

this sector. Furthermore, the increased energy need for desalination in favor of water security might soon encourage humankind all over the globe to accelerate and optimize research into innovative cheap energies and to try making even seemingly distant energy solutions ready-to-market (see Sect. 11.3).

### 11.3 Energy Security

According to the International Energy Agency (IEA) "...energy security refers to the uninterrupted availability of energy sources at an affordable price" (International Energy Agency 2014). Fossil energies don't fulfill this requirement because of their generally limited availability. The exact time span of the availability of limited resources is controversial. According to estimates by the German "Bundesanstalt für Geowissenschaften und Rohstoffe" (BGR) from 2009, coal and crude oil are supposed to be available for several decades: from the secure resources, it will still be possible to win hard coal for about 133 years and brown coal for about 270 years, whereas natural gas should be able to cover the needs for about 40 years. Uranium resources as basis for nuclear energy were considered to be available for about 65 years based on estimates from 2009. Crude oil was even predicted to have reached the peak of production already in around 10 years back in 2009, i.e., is expected to be only available for 5 years from now on (Süddeutsche Zeitung 2009).

Therefore, fossil energies, apart from their other drawbacks including noxious emissions (see Sect. 11.1), do not provide energy security in the long run, moreover involving the risks of crises and tensions due to their limited availability. The frequently discussed innovative technologies to sequester CO<sub>2</sub> are highly controversial and bear significant risks (Raskin et al. 2010). Nuclear energy, apart from the ecological risks of its waste and its widely known security risks, is equally unsuitable to provide energy security due to the limited availability of Uranium.

For this reason, the focus should be put on renewable energies. Renewable energies can be divided in partially renewable and fully renewable energies (Schwarz-Herion 2005, with further references). Bioenergy is a partially renewable energy which has some advantages over coal and oil. As a widely available and naturally distributed source of renewable energy it generally requires low cost inputs, can be domestically produced for energy independence, and is able to convert waste into energy. Bioenergy is also CO<sub>2</sub> neutral due to the photosynthesis in the process of regrowth (NN 2014a).

Nevertheless, land utilization can be considerable, sometimes even leading to deforestation. According to experts, more attention has to be paid "...to the social and environmental costs incurred at regional scales by biofuel production in Brazil..." (Medeiros de Araujo and de Barros Prado Moura 2011). Furthermore, plants require water to grow. Moreover, this energy is not totally clean: When burned, biofuel produces soot and ash and emits the GHG methane (CH<sub>4</sub>) as well as toxic substances like SO<sub>2</sub>, NO<sub>x</sub>, and CO. From an economic point of view, the overall process can be expensive including, e.g., the acquisition price for the land and expenses for fertilizers and pesticides. The environmental damage from many

pesticides must be taken into consideration. Some biofuels are seasonal and some plants may compete directly with food production, e.g., corn and soy. In extreme cases, biofuel can cause food crises by driving food prices up to 75 % (Chakraborty 2008).

Utterly renewable energies are, e.g., solar, wind, and water energy. General advantages of all utterly renewable energies are their theoretically unlimited availability and their cleanliness because they don't produce any noxious emissions.

Wind is available for free, thus one of the cheapest forms of energy. If the turbines produce enough energy and the power company creates surplus, it will pay for the owners of turbines (Murrye 2014; NN 2014b).

Nevertheless, wind energy lacks the potential to fulfill electricity needs to 100 %. Producing significant amounts of electricity from wind requires a large area, while wind energy units only fulfill a part of the electricity needs on most residential estates. So, land which might be used otherwise (e.g., for agriculture) is used for only partially efficient electricity production (NN 2014b). The varying speed and power of wind which doesn't flow equally fast and strong all the time leads to an inconsistency in electricity production. Moreover, human beings are disturbed by the noises and shadows of the turbines; animals, e.g., rare birds might equally suffer from wind turbines in regions where they nest. Some wind energy supporters display ignorance towards environmental protection areas and potentially threatened species and must be stopped by court orders in favor of biodiversity, e.g., to protect raptors and to preserve recreation areas where rare birds nest (ProNaturRaum 2013). Sometimes, committed politicians launch initiatives under the motto "Together instead of against each other in the subject of wind energy" to support reasonable wind energy projects at adequate locations while protecting environmental protection areas and supporting citizens' needs against the power abuse of those politicians, cities, and planners who push wind energy projects in a rash way at every prize regardless of the suitability of the location and allow wind energy planners to play cities off against each other (Gegenwind Ettlingen 2014).

Last but not least, state subsidies in favor of wind energy and the increasing popularity of this energy involve some severe risks, triggering abuse like Sustainability fraud, subsidy fraud, tax fraud, and green-washing. Just recently, Europol warned against an increasing trend of investments into wind farms by Italian Organized Crime Groups who were not only reaping significant benefits from EU grant and tax subsidies by abusing eco-friendly incentives for their own financial gain, but also using wind farms for money laundering (Europol 2013).

Water power (hydro power) is derived from the energy of falling and running water. The most obvious advantage of hydro power is that the electricity produced by dam systems can be produced at a constant rate once a dam is constructed. Furthermore, the sluice gates can be shut, stopping electricity generation, if electricity is not needed, thus saving the water for use at another time. Dams are designed to last many decades, contributing to the generation of electricity for many years or even decades, the lake forming behind the dam can be used for water sports and leisure activities, large dams often become tourist attractions in their own right, and the lake's water can be used for irrigation purposes (Ryan 2009).

Nevertheless, there are some significant disadvantages to hydropower. People living in villages and towns within the valley to be flooded have to move out, necessarily losing their homes, farms, and businesses. In some countries, people are even forcibly removed to implement hydropower projects. Furthermore, dams blocking the progress of a river in one country hinder the water supply of neighboring locations from the same river, often leading to serious problems between neighboring locations. The building of large dams can cause serious geological damage, e.g., the building of the Hoover Dam in the USA which triggered a number of earth quakes (Ryan 2009).

Another source of renewable energy is geothermal energy, won by tapping into the natural heat of the earth to produce electricity, drawing on the earth's hydrothermal resources (underground heated water and steam) by drilling into the interior of the earth, extracting hot water and steam from the earth's crust to drive electricity-generating turbines, called "heat mining" (Center for Climate and Energy Solutions 2014). Geothermal power plants work continuously around the clock (Center for Climate and Energy Solutions 2014; NN 2014c).

Nevertheless, geothermal energy has many weak points including limited availability and safety risks. Geothermal energy can only be fully tapped in certain regions of the Earth – mostly in regions far away from human settlements, thus adding emissions from transportation to the ecological footprint and transportation costs to the overall expenditure (NN 2014c). Beyond that, there are high capital costs of geothermal projects in the exploration stage coupled with a 75–80 % chance of failure for exploratory well drilling due to uncertainties regarding reservoir geology (Center for Climate and Energy Solutions 2014). Beyond that, geothermal plants might produce harmful emissions. Some plants emit some sulfur dioxide, hydrogen sulfide, and nitrous oxides. The water used in the process can be polluted by arsenic or mercury if the system is not insulated properly. Furthermore, geothermal plants can trigger low-magnitude earthquakes involving the risk to damage standing structures in the long run, usually due to the process of injecting high-pressure streams in the Earth's crust. In some regions, the process has also been linked to subsidence, i.e., sinking of land (NN 2014c). The high security risks for humans along with severe economic damages disqualify geothermal energy as viable alternative to other renewable energies – at least at the current state-of-the-art.

Solar energy is a promising and rather popular utterly renewable energy. Energy from sunlight is harnessed for power, using crystals made from material such as silicone that produces an electrical current when being struck by light. Solar energy has many evident advantages. Theoretically, it is constantly available and the energy as such is free of charges. In addition, solar power allows those in remote locations to live off the grid without needing noisy, smelly generators, enabling people to become energy self-sufficient. Like most innovative technologies, solar technology is improving and reducing in cost all the time, whereas fossil fuel prices often increase unexpectedly – not rarely for political reasons.

Nonetheless, there are also disadvantages: Solar energy, relying upon the quantity and intensity of the sunlight reaching the photovoltaic cells, cannot be used anywhere and anytime in a sufficiently efficient way. Furthermore, the production of solar panels is expensive. While silicon is abundant, clean silicon is highly difficult

to produce and the cleaning process is extremely expensive. According to the current state of research, solar panels can only convert a maximum of 34 % (ca. 22 % for the majority of panels) of the available sunlight into electrical energy. Therefore, and also due to the diffusivity of sunlight, a large number of solar panels are needed to produce adequate amounts of electricity (Buckley 2014).

In sum, solar energy electricity is one of the most promising renewable energies for the near future but might be replaced mid-to-long term by even more ecological and more widely available alternatives which are significantly cheaper. It is a controversial issue, whether the usability of these innovative energies is not yet fully explored or whether they are systematically blocked – possibly due to economic, political, and military reasons.

Actually, there is an increasing interest in the *cold fusion*, also known as LENR (Low Energy Nuclear Reactions). The *nuclear fusion* on which LENR is based works in the following way: 2 hydrogen nuclei fusion into one helium nucleus, producing an extremely high amount of energy without creating any emissions (Ho 2007). Due to the mutual repulsion of the positively charged hydrogen nuclei, the implementation of this reaction at low temperatures (cold fusion) requires a high technological input. Until now, the cold fusion does not seem to be ready for the market yet (Hernandez and Walorski 2014).

There are similar problems regarding the energy production by free energy (radiant energy). The theory for this kind of energy generation goes back to Nikola Tesla (1856–1943) who realized that all material in the universe consists of vibrational energy encompassing all frequencies and provided the evidence of free energy by numerous experiments. Nonetheless, even though the theory exists and the experiments have been refined, this energy could still not penetrate the market yet (Turtur 2008).

In any case, these future-oriented energies would avoid land grabbing as it is occasionally done by some Mafia groups and some opportunists in connection with government-supported wind energy projects (see above) or by private investors from rich countries who want to benefit from government-mandated agro-fuel (e.g., by the EU) by purchasing or leasing huge tracts of land in, e.g., Africa, Asia, and Latin America by abusing the imbalance of power in the negotiations as described by Exner in the framework of the research project “Save our surface” (Exner 2011).

## 11.4 Biodiversity

“Biodiversity is the total richness of biological variation. The scope of biodiversity is usually considered to range from the genetic variation of individual organisms within and among populations of a species, to different species occurring together in ecological communities” (Net Industries Science 2014). Biodiversity is a significant part of the biosphere which “...includes all living organisms on earth, together with the dead organic matter produced by them...” (Ellis 2013).

Biodiversity is important for several reasons including the possibility to use bio-products as, e.g., food or medicine. There are a range of rare plants in some regions

in India which are used as a cure against all kinds of illnesses since centuries by indigenous people. Once big pharma corporations recognized that, they started to exploit these medicinal plants for commercial reasons, threatening the plants by overharvesting and the indigenous people by bio-piracy and by neo-colonialism (Kala and Sajwan 2007).

The World Wildlife Fund (WWF) provides a list of threatened animals and plants. The list of animals which are threatened includes, e.g., brown bears, polar bears, elephants, and the Big Panda which is also represented in the WWF's logo (World Wide Fund 2014). Nevertheless, conservation groups tend to lose credibility, trust, and sympathy, if their connection to individuals who hunted threatened animals like tigers and elephants becomes public (Devconsultancygroup 2012; Transmissions Media 2012). Therefore, it seems reasonable to found new, non-tainted conservation groups on the initiative of civil society groups, ideally in cooperation with indigenous people in, e.g., Africa, Latin America, and Alaska, in the near future.

Unfortunately, there is little hope that any conservation groups, regardless of their commitment and integrity, will be able to protect threatened species as long as the hunting of threatened species is allowed or even advertised as it is done in, e.g., these links:

- <http://www.polarbearhunting.net/>
- <http://www.alaskaadventuresafaris.com/brown-bear.htm>.

The excuse, regularly used by hunters, that hunting was allegedly necessary in favor of the eco-balance clearly doesn't count in the case of endangered and threatened species. The only way to protect animals which are critically endangered or even threatened (polar bears, tigers, several species of brown bears, etc.) in an efficient way would be a general prohibition to hunt them.

Generally, the establishment of wild parks is a tempting idea to protect rare animals and plants, but this requires strict entry controls and tight security measures including the employment of reliable gamekeepers. Beyond that, there are trends to apply air surveillance at wild parks (Foley 2014). The establishment of wild parks and necessary measures of protection are expected to be very cost-intensive. Therefore, it is unrealistic if whole communities or even countries get indebted to ultra-rich and influential private individuals and/or dynasties in order to establish wild parks, taking the risk to surrender the control over areas, plants, and wild animals to private players with unknown intentions (see also Chap. 7 regarding the Modus Operandi of EHM for all kinds of projects with reference to Perkins 2005).

Apart from aesthetical and ethical aspects, enabling nature-loving adults and children to admire a great diversity of animals in nature, wild parks, zoos, and in the circus, we have to take into consideration that the survival of some species is necessary for the very survival of humankind. One of these species is the honey bee.

Since some years, bee colonies across the world disappear – a phenomenon known as colony collapse disorder (CCD) (Mercola 2011). According to Mercola, honeybees contribute \$15 billion in annual agriculture revenue to the U.S. economy alone: one-third of the U.S. food supply depends on the pollination of crops by bees.



There are several theories by which the die-off of the bees might be explained (Mercola 2011):

- Certain kinds of pesticides: e.g., Imidacloprid and Clothianidin whose marketing coincided with the occurrence of large-scale bee deaths in numerous European countries and the United States, resulting in lawsuits against Bayer
- Pesticides intrinsic to genetically engineered crops
- Malnutrition/Nutritional deficiencies, leading to suppressed immune function, making bees more sensitive towards toxic pesticides, fungi, viruses, etc.
- Viruses and Fungi: According to a 2010 study, CCD is due to “a fungus tag-teaming with a virus”, but the lead author who received a grant from by Bayer might be biased.
- Cell phones and electromagnetic fields (EMF) pose major threats to the bee population. As shown by studies at Landau University and at the SN College, Punalur, Kerala, in 2009, microwaves from mobile phones disturb worker bees’ navigation skills, making hives collapse totally in 5–10 days since the bees did not return home.

Certainly, the only effective way to protect biodiversity would be a global constitution with legally binding rules, e.g., stipulating regulations for the use of pesticides and other harmful emissions, guaranteeing the protection of threatened animals from hunting, and regulating the harvesting of rare plants. Alternatively or additionally, genuine grass-root movements of citizens all over the globe should take measures in favor of biodiversity.

Beyond the protection of currently living endangered and threatened species, there are possibilities like “frozen zoos”, containing banks of biological material from endangered or threatened species (animals and plants), frozen in liquid nitrogen at a temperature of nearly  $-200^{\circ}\text{C}$ , cooperating with laboratories to clone endangered species. Nevertheless, even frozen zoos are not able to bring long-extinct species back (Lewis 2012). Therefore, it would be short-sighted to think that sperm banks and cloning would replace the protection of currently endangered and threatened species.

## 11.5 Bioterrorism

“A bioterrorism attack is the deliberate release of viruses, bacteria, or other germs (agents) used to cause illness or death in people, animals, or plants. These agents are typically found in nature, but it is possible that they could be changed to increase their ability to cause disease, make them resistant to current medicines, or to increase their ability to be spread into the environment” (CDC Centers for Disease Control and Prevention 2014). The spreading of pathogens into the environment can be done via direct exposure to humans, through infected animals and plants, or via the contamination of drinking water and soil. Bioterrorism, i.e., terrorism by biological



weapons, may also be directed against livestock, crop plants, and technical devices (Langbein et al. 2002).

Biological weapons are best suited to hurt a technologically superior enemy effectively. Nothing can be hidden in a better way than biological weapons, and nothing can be produced in a cheaper way. Mass destruction of people, animals, and plants can be implemented without any major technological effort by using appropriate biological weapons, for example, pest pathogens and pathogens of other dangerous infectious diseases like smallpox, plague, cholera, Ebola, Legionella, etc. Biological weapons are not an invention of modern times, but have been used very effectively in antiquity and the Middle Ages, for example, by means of prepared arrowheads, equipped with feces, by the contamination of rivers, lakes, and wells with corpses, poisoned grains, or – particularly spectacular – by throwing plague corpses or plague infected animals over the walls of a besieged town, e.g., at Kaffa on Crimea in 1346 (Langbein et al. 2002).

The U.S. and the USSR have created the basis for a global bioterrorism in years of scientific work by the targeted development of biological weapons. After these two great powers had stopped their research activities officially since the Biological Weapons Convention of 10 April 1972, there are several hundreds of former specialists of bioweapons labs with a deadly know-how. Additionally, the Biological Weapons Convention, signed by 163 states and ratified by 145 countries to date, has some notable weaknesses. Although the convention is a global agreement, there are still some white spots on the globe (Langbein et al. 2002; Kinder et al. 2011).

The international agreement establishes the rules that are supposed to prevent a biological arms race and to save humankind from an apocalypse. The great weakness of the agreement, however, is that, although research is banned for aggressive war, the agreement expressly permits to defend against wars of aggression. The boundaries between offensive and defensive research, however, is nowhere defined and therefore not clearly definable. Furthermore, effective controls are missing (Langbein et al. 2002).

In 2002, the British government released a report which revealed that between 1940 and 1979, i.e., even after completion of the Biological Weapons Convention, "...large parts of the country had been turned into a giant laboratory to conduct a series of secret germ warfare tests on the public" (Barnett 2002). The military personnel received the order to tell anyone conducting inquiries that the trials were "... part of research projects into weather and air pollution" (Barnett 2002). Allegedly, the tests were supposed to assist the Ministry of Defense in assessing Britain's vulnerability in case that the Russians would release clouds of deadly germs over the U.K. Among the materials sprayed into the air to conduct these tests, there had been carcinogenic substances, e.g., zinc cadmium sulfide (ZnCdS), and other harmful substances, including anthrax-like substances. The health risks were played down by the government, although one scientist admitted that older people might suffer health problems and although there had been an accumulation of birth defects in those regions of the U.K. which were exposed to the spraying activities. The spokeswoman for Porton Down, the U.K. government military science park conducting these tests, was reluctant to answer questions whether the tests still continued

(Barnett 2002). In any case, exposing humans to germs in periods of peace by spraying harmful substances into the air might very well be considered a case of bioterrorism, regardless of whether done by private or by public players.

Some additional examples for acts of bioterrorism shall be cited to highlight the variety of real life cases:

- The Tokyo Subway Sarin attack: In 1995, an insidious nerve gas attack in the Tokyo subway shocked the public. The attack was carried out by the Japanese Apocalyptic sect Aum Shinrikyo. This was done by plastic bags filled with Sarin which were carried in several subway trains before holes were stung into them during the morning rush. The gas flowed out, resulting in the death of 12 people and the injury of thousands of people. The sect behind this attack was equipped with money and had physicians, biochemists, physicists, and electrical engineers in its ranks. The sect had already committed ten attacks by biological weapons between 1990 and 1995. Supposedly, their leader Asahara wanted to pretend that the U.S. were behind the attacks (Langbein et al. 2002).
- The Anthrax case: Soon after the terrorist attacks of 9/11, letters laced with anthrax sent via the U.S. mail killed five Americans and sickened 17, leading to an FBI investigation code-named “Amerithrax” which became one of the most extensive investigations in law enforcement. In 2008, the medical doctor who was found guilty committed suicide before charges could be filed. In early 2010, the case was closed (Federal Bureau of Investigation 2011). Nevertheless, it remains controversial whether the doctor who was found guilty had grown the spores for the anthrax letters in his laboratory or whether the true culprits might be “still at large” (Rosenthal 2011). According to experts in security politics, the culprits might be sought in circles of the US-American bio-weapons research sector and their motive might have been to push research investments into counter-measures (Bundeszentrale für politische Bildung 2011). The vaccination against Anthrax had already been extremely controversial before the Anthrax attacks: in the late 1990s, the US-army had decided to vaccinate 2.4 millions of military members and reservists against anthrax, although experts expressed doubts that anthrax was an efficient protection against inhalation anthrax. Speakers of veterans contribute the so-called Gulf War Syndrome to anthrax vaccinations, alleging that bioterrorism happened, but didn’t come from the enemy but from their own people (Langbein et al. 2002).
- India’s 2011 Polio vaccinations fatalities: In India where nearly 170 Mio children at the age of 5 and below were vaccinated against Polio, “47,500 cases of polio-like condition were linked to oral polio vaccine in 2011 alone” (Mercola 2014) which were “clinically indistinguishable from polio paralysis but twice as deadly” (Mercola 2014 with further references). Medical experts found out that the wild polio virus had been replaced by a vaccine-induced form of polio which was much worse than the naturally occurring form of polio and made global eradication impossible. So, mainstream media news reports pretending that polio had now been eradicated in India due to the Polio Global Eradication Initiative (PGEI), founded by the World Health Organization (WHO), Rotary International,

UNICEF, and the U.S. Centers for Disease Control and Prevention (CDC), were misleading the general public. Already back in 2002, it had been “reported that fully infectious polio virus had been recreated in a lab. While this was heralded as a milestone in biology, it was met with great unease by the general public who worried that polio could now be used as a weapon of bioterrorism” (Mercola 2014).

These examples show that biological warfare and bioterrorism have many faces and that pathogens might not only be, e.g., sent via mail or be released from perforated plastic bags in subways, but might even be hidden in seemingly helpful vaccinations containing harmful or even possibly fatal, lab-created viruses. One of the most subtle and most dangerous forms of biological warfare is the spraying of germs via planes by using unsuspecting citizens as guinea pigs, for instance, under the pretext of ecological research projects.

There are strong indicators that a combination of the latter two techniques (modifying viruses in the lab and spraying them into the air via planes) is technologically possible:

In connection with the H5N1 strain of avian influenza that killed hundreds of millions of birds since it first appeared in 1996 before the first case of H5N1 virus (avian flu) spread from a bird to a human during an outbreak of bird flu in poultry in Hong Kong only one year later in 1997 (Nature Publishing Group 2014), many experts doubted that the bird flu would spread easily from birds to humans by nature without direct physical contact of humans with the birds (Mercola 2006). Nevertheless, a scientist did the following statement: “In the laboratory, it was possible to change H5N1 into an aerosol-transmissible virus that can easily be rapidly spread through the air...This process could also take place in a natural setting” (Connor 2011).

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## Chapter 12

# The Myth of Sustainable Food Supply and the Urgent Need for Radical Change from Competitive Corporatism to Sustainable Stewardship

Susan Mary Harris

**Abstract** Stable societies depend upon sustainable food supplies for their very existence. However, very few food sources or food supply chains have been independently certified as truly sustainable. As world food demand goes up and supply goes down, sustainable food supply is a myth for both the poor and the rich. Instead, there is widespread ignorance regarding the dangers of the present ‘profit-only’ driven world food supply system. These dangers are concealed behind a confusing array of mostly unreliable and misleading green claims and green labels. In the transition to a sustainable future, there is an urgent need for world food business to change from a competitive corporate paradigm to a sustainable stewardship paradigm. There is also an urgent need for an independent, incorruptible, and universal green label that can authenticate, on one consistent and reliable platform, all types of truly sustainable foods and food supply chains world-wide. This chapter will discuss these issues, how paradigm change might occur, and how the brand family of Green Tick® ‘Sustainable’, ‘Natural’, ‘Organic’, ‘Carbon Neutral’, ‘Carbon Negative’, ‘GE-Free’ and ‘Fair Trader’ meet the need for an incorruptible and universal ‘green’ label for food and food supply chains.

**Keywords** Climate change • Corporate • Ecolabel • Sustainable food supply • Green • Organic • Supply chain • Sustainable • Green Tick®

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## 12.1 Prologue – Tragedy of the Fertile Crescent

History shows that stable human societies rely on stable food supplies for their very existence. Food surpluses generated by the Agricultural Revolution in Neolithic times (about 10,000 years BP<sup>1</sup>), fostered the development of dozens of civilisations throughout the Bronze and Iron Age up to present day global civilisation in the Modern Age. These large expansions in human activity and impacts occurred against the background of a relatively stable world climate in the Holocene era, which began about 11,700 years BP.

Human influence and impacts upon the planet have been observable from ancient times. In Mesopotamia (the lands generally bordering the Tigris and Euphrates Rivers), competing civilisations, empires, and emperors fought natural resource wars which changed the landscape from a highly productive riverine ‘Fertile Crescent’ to arid plains and deserts.

Today the great cities that once rose along the Tigris and Euphrates rivers are largely unexcavated mounds or broken bricks on arid plains, and the once fertile crescent has steadily dwindled to a wasteland due to human factors (such as overuse of the land through agricultural pursuits or urban development) and to climate change. <http://www.ancient.eu.com/Mesopotamia/>

This regional desertification occurred in an area where the carrying capacity of the environment was not challenged by early civilisations with small populations. Conflict occurred when food stability led to the production of large families, large numbers of non-agricultural labour, growth of large city-states, international trade, accumulation of vast personal wealth, and the creation of advanced political and military governance systems and forces. Thus food stability generated ancient empires with extensive commercial and military reach.

However, a combination of rapid population growth, desire for personal aggrandisement by kings, wars of conquest, resource greed, poor land and water management, plus climate change, resulted in Mesopotamian societies’ expansion beyond the natural environment’s carrying capacity, leading to the gradual collapse of great civilisations. A few kingdoms had Semitic shepherd-steward kings who managed their resources on a stewardship basis, but this was rare.

The birth and death of these civilisations followed an eight stage process: food stability – rapid population growth – empire establishment – resource pressure exacerbated by climate change – resource competition – retreat to fortresses – war and resource destruction – civilisation collapse.

## 12.2 Future World Food Demand

Up until recent times the world population of humans has not seriously challenged Planet Earth’s capacity to produce enough food for all. However this is changing as a rocketing world population, modern business practices, and climate change

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<sup>1</sup> Before Present.

recreate, for the first time in human history, the “Tragedy of the Fertile Crescent” on a global scale.

In the 200 year period from 1800 to 2000 AD, world population jumped 600 % from one billion to six billion. Presently it is 7.2 billion. It is projected to reach 9.6 billion by 2050 (UNFPA 2012). The vast majority of this increase will be in developing countries. More than half of the increase will occur in Africa, with India to overtake China around 2028 as the world’s most populous nation.

This large increase in population will drive a corresponding increase in total demand for food, and a significant change in the type of food ‘basket’ sought. Projected growth in the Asian and South American middle classes is expected to generate much more demand for meat, fish, dairy products, vegetables, fruit and other non-staple ‘luxury’ items (Godfray et al. 2011; Tilman et al. 2011; Foley et al. 2011; Gregory and George 2011; Ray et al. 2013).

The demographic difference is crucial. Collectively authorities reviewed provide a best estimate of a 100 % increase in world energy (calorific) demand between 2005 and 2050, a 110 % increase in demand for protein, and a fundamental change in the global food basket as the growing middle classes in Asia and South America migrate to ‘rich country’ diets.

As has been noted by one authority, the challenge to produce enough food will be greater over the next 50 years than in all human history (Clark 2009).

### 12.3 Flawed and Failing World Food Supply Systems

A sustainable world food supply system would deliver adequate nutrition to all people, within the natural carrying capacity of the planet, and without causing permanent environmental degradation or on-going impoverishment, conflict, injustice or harm to persons along the supply chain. This section comprises a brief review of current world food production and supply systems to see whether they could be described as “sustainable”.

World food authorities generally conclude that in terms of natural carrying capacity and nutritional value, Planet Earth produces enough food to feed the present world population of 7.2 billion. Theoretically, it can produce up to 1.5 times more than what is needed at present, or 10–11 billion people based on a daily intake of 2,000–3,000 kcal (energy) per person per day (FAO 2013). With this theoretical level of productivity, it might be expected that world food supply systems could easily feed the current world population and comfortably accommodate the expected increase up to 2050.

Unfortunately, despite theoretical abundance, it is obvious that the current world food supply system does not deliver sustainable outcomes to all people or the planet. The key drivers and outcomes of the present world food supply system are summarised in Fig. 12.1.

Tragically, negative outcomes become themselves negative drivers so that this flawed system perpetuates itself in a destructive feedback loop. Conflict over food and water resources ranges from localised food riots to full scale war in Northern

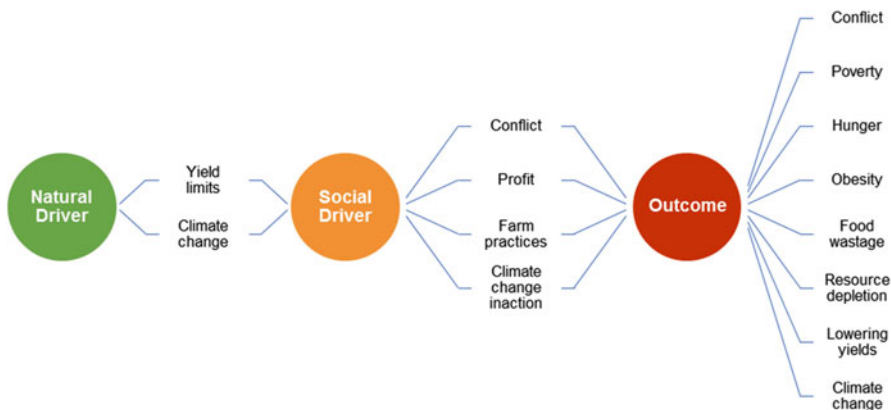


Fig. 12.1 Drivers and outcomes of current world food supply system (Source: Own depiction)

and Central Africa, the Middle East, South Asia and India. Poverty follows conflict and unstable political systems, particularly for poor farmers who have limited natural resources and practically no capital. Poor farmers and their families comprise 50 % of the world’s poor, all very vulnerable to exploitation by food merchants, traders, corrupt government officials, and terrorists.

Inequitable distribution results in undersupply of food to the poor, and oversupply to the rich. Recent estimates are that 842 million people (12 % of the world’s population) are hungry (WFP 2013). Most live in sub-Saharan and South Asian nations, notably India, where one third of the population (421 million) suffers from malnutrition. About 8 % (67 million) of the hungry are in famine (they are starving to death), and the remaining 92 % (775 million) are undernourished. Despite significant reductions in hunger achieved by economic growth in Eastern Asia and Latin America since 1990, the United Nations has stated that its Millennium Development Goal (MDG) to halve world hunger by 2015 is out of reach (FAO Hunger Map 2013).

On the other hand, 2.1 billion people are over-nourished and suffering the diseases of excess such as obesity, diabetes, heart disease, cancer and strokes. Worldwide obesity has nearly doubled since 1980, and 65 % of the world’s population live in developed countries where obesity kills more people than hunger. For any human baby born on Planet Earth, there is statistically more than twice as much risk of him or her dying of over-nutrition than under-nutrition (WHO 2014). The present world food supply system is killing 41 % of its customers by undersupply and oversupply.

Incredibly, about a third of all food produced is wasted, and this is true in developing as well as developed countries. In developing countries, most food is lost from production to retail point; for example milk souring on the way to market in Bangladesh because farmers can’t afford refrigeration. In developed countries food

is lost mostly at consumption point, when consumers throw it out, or when it is simply not sold and discarded by the farmer, retailer or restaurant; for example, carrots that are not 'straight enough' rejected for sale in English supermarkets (Gustavsson et al. 2011).

Modern agricultural systems comprise traditional farming practices and industrial agriculture. Traditional methods in Asia, Africa and South America can lead to desertification and the clearance of large areas of forest for ultimately a diminishing return. Overgrazing and the burning of crop residues for fuel commonly occur in sub Saharan Africa, India and Bangladesh where desperately poor farmers have no other option.

"Industrial agriculture" refers to a form of capital intensive, profit-driven farming where machinery and chemicals are substituted for the labour of human beings and animals. It includes very large areas of mono-cultural crops, large numbers of grain-fed animals raised in confined spaces, extensive use of antibiotics, feed supplements, and animal remedies, energy (mostly fossil-fuel sourced), synthetic fertilizers, pesticides, irrigation water, genetic technology, patent protection for genetic information, global commodities trading, market access agreements and barriers, and extensive and influential political, economic, and consumer lobbying.<sup>2</sup>

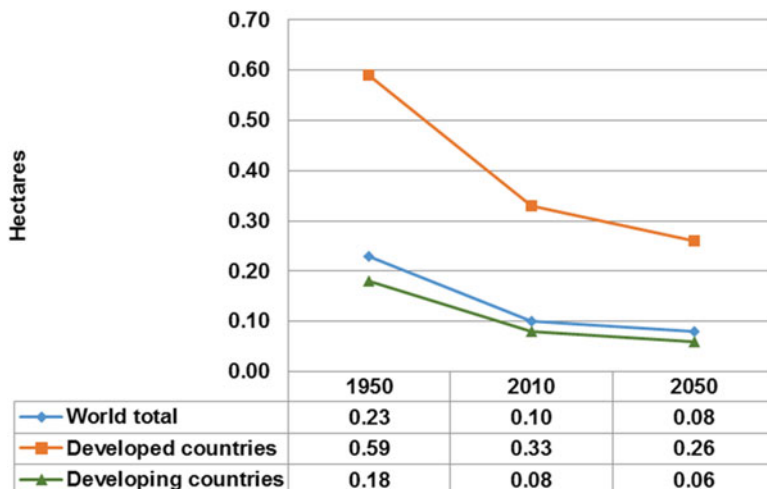
Massive depletion of natural resources has occurred over the past 150 years following the deployment of industrial agriculture. Land clearing has changed permanently most of the world's grasslands and savannahs, and significantly impacted temperate and tropical rainforests (Foley et al. 2011). Low efficiency irrigation accounts for 80–90 % of human freshwater demand. Water quality has reduced at the same time as water quantity – fertiliser, pesticide, herbicide, and animal waste runoff and accelerated soil erosion combine to severely degrade and even destroy many freshwater and coastal environments. A high level of water insecurity affects 80 % of the world's population – even in developed countries (Vörösmarty et al. 2010). All of the planet's wild capture commercial fisheries are fully exploited, or over-exploited (Godfray et al. 2011).

Agriculture has the largest "footprint" of all human activities upon the planet, and could be said to be the progenitor of the urban footprint, as the development of huge, complex cities would not have been possible without it. It is also the second largest source – 24 % – of all anthropogenic greenhouse gas (GHG) emissions. Many authorities agree that agriculture is the major force driving society beyond planetary boundaries of "safe operating space". Three limits out of nine – biodiversity, nitrogen cycle, climate change – are already passed, and two more – phosphorus cycle and ocean acidification – are getting close (Rockström et al. 2009). One key limit missing from the planetary boundaries list is soil erosion. At present soil degradation rates, the world has only 60 years of topsoil left, with 40 % of agricultural soils degraded or severely degraded. Soil is being lost at 10–40 times the rate that it can be naturally replenished.<sup>3</sup> Agriculture accounts for 75 % of all soil

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<sup>2</sup> Source: Wikipedia and Economy Watch websites accessed 21 April 2014.

<sup>3</sup> Professor John Crawford at <http://world.time.com/2012/12/14/what-if-the-worlds-soil-runs-out/>



**Fig. 12.2** Grain harvest in selected countries per capita and projection to 2050 (Source: Own depiction from Earth Policy Institute Data Centre 2010)

erosion, with at least 75 billion tonnes of fertile soil lost, and 10 million hectares of cropland abandoned per year (Pimental and Burgess 2013).

Yields are decreasing as Planet Earth's resources are exploited by industrial agriculture. Degraded soils will result in 30 % less food being produced over the next 20–50 years, and evidence supporting this prediction is already extant – grain harvest per capita has reduced dramatically (world total reduced 57 %) since 1950, and is projected to reduce further (world total a further 20 %) to 2050, assuming that the same amount of grain area is used for production as in 2010, Fig. 12.2. Further analysis is necessary on this point.

The most recent cropland research states that yield trends for the world's four major crops maize, rice, wheat and soybean are insufficient to meet the expected doubling in demand by 2050 (Ray et al. 2013). In future more yields will have to be achieved using less land, and less other resources, per person fed. Scientific authorities hold serious reservations about whether it will be possible to double world agricultural production *per se*, let alone achieve it without seriously damaging the planet further (Ray et al. 2013; Ehrlich and Ehrlich 2013; Pimental and Burgess 2013).

Climate change is an outcome of modern agricultural practices, with GHG emissions from deforestation, transport, chemical fertilisers, tillage techniques and animals making a major contribution to it. There is overwhelming evidence that climate change will seriously reduce Earth's ability to produce more food. Specifically this will occur because of fundamental, and as yet poorly understood changes in rainfall patterns (Marvel and Bonfils 2013); cyclone and wet season events, flooding, drought frequency and location, animal and plant disease distribution and vulnerability, heat stress, saline intrusion into groundwater sources, and impacts upon water and transport infrastructure (IPCC 2014).

The profit motive is without doubt the most important, influential, and universal social driver of the world's food supply system. Undersupply to the poor and oversupply to the rich occurs because the profit-driven and largely privatised world food supply system aims to buy food (often from the poor) for as little as possible, and sell it to the rich for as much profit as possible. As a result of their wealth, unhealthy convenience foods, and inescapable saturation marketing, 2.1 billion people are over-nourished and suffering the diseases of excess such as obesity, diabetes, heart disease, cancer and strokes. In contrast, as a result of their poverty and political irrelevance, poor people are chronically undersupplied with food and are reliant on aid agencies and government assistance programmes.

Climate change inaction is another social driver. Most developed country commercial food businesses (and governments) are only superficially committed to managing the serious commercial security and sustainability risks that climate change presents to their operations, shareholders, and customers. Neither do they appear to be comprehensively assessing the commercial opportunities that it offers. In contrast, food corporates domiciled in China, India and Africa seem more proactive in assessing and planning for the risks and opportunities that it will bring to their industry, probably as a result of having to operate in resource-challenged circumstances as their "business as usual" paradigm anyway ([China's 12th Five Year Plan 2011–2015](#)).

## 12.4 Shades of Green

In the Modern Age, people in developed countries first became generally aware of sustainability issues with the publication of Rachel Carson's book *Silent Spring* in 1962. The book documented the adverse effects that the pesticide DDT had in the environment, particularly upon bird populations. The book created a furoré in the Western world that birthed the environmental movement of the late 1960s. It led to the formation of the United States Environmental Protection Agency (USEPA), a government environmental protection agency, and the Environmental Defense Fund, a highly organised environmental NGO.

International concern on "green" issues has grown since then with the further development of government environmental agencies, environmental NGO's such as Greenpeace, and trade associations like the Global Aquaculture Alliance. Widespread public concern with these issues has led to the establishment of a series of international standards for environmental (ISO 14000 series) and social (ISO 26000 series) responsibility management and reporting. None of these contain definitive sustainability performance standards that industries can use and consumers can trust.

Because of this gap, scores of informal environmental and sustainability standards, eco-labels and informal green claims have been invented and promoted by individual companies, organisations, trade associations and NGO's. These range in quality, calibre and expense from a "fill-in-the-form-on-line-and-pay-us-fifty-

bucks” certificate through to the enterprise corporate GRI<sup>4</sup> model. Eco-labelling has developed into a confusing array of green claims and green labels. There are over 450 eco-labels, about 20 of which are used in the food industry. Each of these has a different definition of “sustainability”, and therefore different standards for measuring it. Labels and claims vary from the fully genuine to the criminally misleading. False green claims are often described as “greenwash”, there are many “shades of green”, and even “eco-criminals” – organised gangs that poach endangered species.

With this confusing plethora of claims, standards, labels, fakes and shades of green in the food industry, how can consumers tell whether individual food products or food supply chains are truly sustainable? What proportion of world food and the world food supply chain is independently and reliably certified as being genuinely sustainable? An attempt to answer this question was done by performing a 2014 Global Benchmarking Survey of Independent Sustainability Certification of Food Products and Food Chains in April-May 2014 (2014 survey).

## 12.5 Certified Sustainable Food Supply – No Such Thing

Several independent, government-registered and reputable<sup>5</sup> sustainability certification eco-labels that identify their certified client (‘registered authorities’) exist which can certify food crops and food supply chains for life-cycle based sustainability. These include, but are not limited to the certification brands shown below in Fig. 12.3.

Note that all these brands hold current certification trademark registrations with one or more governments, which makes them publically accountable under law. Organic certification is often interpreted by consumers and industry as a proxy for sustainability, but scientifically this is not always correct. Organic certification marks and other forms of environmental certifications not registered officially as sustainability certification agencies were not included in the 2014 survey.



Fig. 12.3 Registered sustainability certification authorities

<sup>4</sup>Global Reporting Initiative.

<sup>5</sup>Not substantially criticised or discredited to date.



The survey was undertaken from two perspectives: a “look down” the food chain from the supplier’s perspective, and a “look up” from the consumer’s perspective. The key findings of the 2014 survey are summarised below.

Less than 0.1 % of the food produced by the world’s top five food producers USA, China, India, European Union-17 and Brazil; and less than 0.1 % of that produced by the world’s top ten net food exporters New Zealand, Uruguay, Argentina, Costa Rica, Chile, Malaysia, Thailand, Ecuador, Denmark, and Brazil; are certified sustainable. Very few exceptions occur on a global scale, for example Fair Trade® certifications of cocoa, coffee, tea, sugar, fresh fruit, honey, nuts and oilseeds sourced mostly out of South America and South East Asia.

The vast majority, 99.99 %, of the world’s four staple food crops – maize, rice, wheat and soya beans – are not certified sustainable. A few specific crops from relatively few individual producers in the US are certified by the US-based Food Alliance®. Food Alliance® and Fair Trade® certifications represent almost all of the food crops certified sustainable by registered authorities. Conspicuously absent from certification listings are the vast majority of all staple grains, meat, fish, fruit, beverage and dairy products.

A survey of all third party food certifications used by the top 50 food and beverage companies found:

1. Little or no commitment to government-registered third party certifications, except in response to campaign pressure on topical issues from NGO’s. Currently deforestation is in vogue, with palm oil, soy, coffee, and cocoa targeted;
2. Round Table on Palm Oil (RSPO), Round Table on Responsible Soy (RTRS) and GreenPalm Oil are the most frequently used unregistered third party certifications<sup>6</sup>;
3. Other certifications used include GlobalGAP, Utz, Rainforest Alliance, Fair Trade®, Marine Stewardship Council (MSC), and various organic certifications;
4. Companies and supermarkets appear to be attempting to shift sustainability assurance entirely on to suppliers by promoting sustainable sourcing policy using in-house criteria (SSC). All the SSC are different, and many of them are highly academic, technically complicated, generalised, inconsistent with one another, expensive to operate, and difficult to translate into the field;
5. The world food industry provides consumers with very little independent sustainability assurance from registered authorities;
6. With a handful of notable exceptions, most food and beverage companies are not pursuing a strategic response to resource depletion, resource competition, and climate change issues as these may affect their specific businesses;
7. Long term commercial and environmental enterprise risk assessment is a rarity in shareholder reporting, despite their current critical and material impacts on world food supply systems, and the certainty that such impacts will worsen in future.

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<sup>6</sup>All of these are industry controlled.



Unsurprisingly, a review of the sustainability status of food ingredients for a typical meal in different countries found that no whole meal anywhere has ever been certified sustainable by a registered authority.

The overall conclusions of the 2014 survey were:

Certified sustainable food supply? There is no such thing.

Certified sustainable food? There is some, but very little.

## **12.6 Global Transition of World Food Business from Competitive Corporates to Sustainable Stewards**

Currently the dominant operational model for world food businesses is the “competitive corporate” model, principally driven by a short term profit motive – the curse of the quarterly report. The profit motive has produced the five main features of the current global food supply system: farming natural systems beyond their natural limits, supplier exploitation and impoverishment, a privatised profit-only world food distribution system, protectionist agricultural and trade subsidies and agreements among developed countries, and powerful élitist political and commercial lobbies operating transnationally and multilaterally.

This élite group of companies, trade associations, senior executives, business leaders, politicians, lobbyists and government officials “Food Lords” loosely – so far - control food supply in every nation. Lately their global lobbying power has been demonstrated in controversy over two international trade agreements – the TTIP<sup>7</sup> agreement between Europe and the USA, and the TPP<sup>8</sup> agreement in the Pacific. Clauses in these agreements which bypass government authority, sovereign powers, and environmental and consumer protection laws in favour of multinationals are currently being hotly debated worldwide.

Food Lords are in the process of creating a relatively small number of huge commercial empires that will dominate world markets. Whilst they may not recognise it, this modern day empire building is simply an imperial response to downward profit trends created by resource depletion and competitive pressure. It’s happened before – in Mesopotamia 4,000 years ago. Modern Age global civilisation is up to stage 5 – resource competition – of the birth and death cycle of a civilisation. The competitive corporate model is slowly destroying the world food business. Unchecked, this suicidal system could progress on to corporate cannibalism, whereby ever larger conglomerates form to compete with one another, eventually aggregating into a handful of gigantic commercial empires desperately trying to sell their products to a rapidly reducing number of rich people. Retreat to fortresses, war and resource destruction and civilisation collapse could ensue, following the Barbarization, Breakdown, and Fortress World scenarios postulated by Rankin et al.

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<sup>7</sup>TransAtlantic Trade and Investment Partnership.

<sup>8</sup>TransPacific Partnership.

2002 in their *Great Transition* essay. The unconstrained corporate competitive model could logically lead to a farcical future whereby a few million fat people living in secure enclaves in Scandinavia and New Zealand occupy their time trying to sell each other hamburgers, beer, smartphones, tablet computers and flat screen televisions (Osenton 2004; Lovelock 2006).

The realities of resource depletion, climate change, population growth, and pressure from a cyber-connected and educated population ultimately mean that world food producers, suppliers and governments will have to accept and adapt to the large reductions in carrying capacity occurring in Planet Earth's ecosystems. World agriculture will have to revolutionise the way it grows crops and does business if it wishes to survive past 2050. Fundamental changes in rainfall patterns will lead to fundamental changes in the production and distribution of food crops on Planet Earth, and consequent shifts in political power. In the North Americas, the warming of the temperate zone is shifting corn growing capability north out of the USA into southern Canada.<sup>9</sup> Similar changes are likely to make the Russian Federation more powerful – the Ukraine remains one of the world's most important food baskets. Most critically, if widespread global efforts are not made soon to effectively halt soil erosion *Homo sapiens* will have almost nothing to grow, sell or eat in the second half of the twenty-first century anyway.

A transition to the New Sustainability Paradigm – Sustainable Stewardship must occur now. This new paradigm has as its primary driver's stewardship and equity for all. It features disconnection of executive reward from profit only, proper payment of suppliers, life cycle based management of natural resources, soil and water resource restoration programmes in affected catchments, GHG emissions elimination, removal of protectionist subsidies, programmes to rescue the poor from poverty and conflict and turn them into profitable producers and consumers long term, programmes to provide rich people with education and products that won't overfeed them and overwhelm health services, full societal transparency and accountability in corporate reporting, and universally consistent meaningful product labelling. A number of world leaders have been consistently advocating change – most notably Gro Harlem Brundtland, member of The Elders, ex-Prime Minister of Norway, and lead author of the seminal 1987 Brundtland report *Our Common Future*. At the 2005 International Sustainability Conference in Basel, Switzerland, Ms Brundtland as keynote speaker<sup>10</sup> made the comment, in answer to a question, that until the 2,000–3,000 CEOs of the major world corporations “get it” (that sustainability is essential for global economic and environmental survival), then meaningful progress would not occur.

Happily, positive signs of desirable transitions are happening now within a few corporates, most particularly within the Circular Economy movement promoted by the Dame Ellen MacArthur Foundation. The Circular Economy concept follows Nature's life-cycle lead where material flows are of two types: biological nutrients,

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<sup>9</sup>[http://www.agweb.com/article/canadas\\_climate\\_warms\\_to\\_corn\\_BLMG/](http://www.agweb.com/article/canadas_climate_warms_to_corn_BLMG/)

<sup>10</sup><http://www.sustainabilityconference.ch/archive/materials/Speech-Brundtland.pdf>, used by permission.

designed to re-enter the biosphere safely, and technical nutrients, which are designed to circulate at high quality without entering the biosphere (Ellen MacArthur Foundation 2012). Currently, only a few food companies have committed to the Circular Economy. Hopefully many more will commit as they realise that the only way to survive the twenty-first century is to abandon the Competitive Corporate paradigm for Sustainable Stewardship.

## 12.7 Authenticating Sustainable Food Supply Chains

As part of the transition of human society into a sustainable future, truly sustainable food sources and supply chains need to be authenticated on the same scientific basis in an independent and incorruptible manner. One government-registered universal label that could unerringly and transparently identify sustainable stewards of food and beverage resources on an individual product, and supply chain basis, would greatly benefit both producers and consumers.

There are trends within the eco-labelling industry to conglomerate eco-labels into competing global associations. Two examples of these are the Global Ecolabelling Network (GEN) and the ISEAL Alliance. GEN is sourced from government research projects in the 1990s that resulted in government-sponsored certification by product content criteria. Generally its members are government registered, which nowadays operate as government-owned or sponsored stand-alone businesses claiming to offer life cycle based certification. ISEAL is a conglomeration of mostly unregistered, well-resourced industry, organic, or NGO driven eco-labels, some of which have been discredited on a number of occasions. Neither association appears to have programmes to consolidate their standards into one universal system. Dozens of independent or single parameter eco-labels such as “Non-GMO” labels also still exist. None of these have responded to the eco-label industry’s call for “one eco-label to rule them all”. Many of them continue to be criticised from time to time for various levels of technical error, greenwash, or conflicts of interest because of allegedly undue influence by corporates.

Green Tick® is an independent eco-label which was designed in the late 1990s to meet the world’s need for a universal, easily recognised, independent, incorruptible life cycle based sustainability certification label. It features a powerful, universally recognised “green tick” logo backed by a life cycle based independent scientific audit. Sustainability is clearly defined as operating in a way that does no permanent damage to the planet or people, with universal safety and sustainability criteria. These act effectively as proxy criteria for labour and supplier protection. Green Tick® Sustainable is the parent brand, with other specialist brands ‘Natural’, ‘Carbon Neutral’, ‘Carbon Negative’, ‘GE-Free’, ‘Organic’ and ‘Fair Trader’ having their own sub-brand criteria. Audit reports are made freely available on-line. A GreenTracer™ application traces products back up the food chain to producer point. Certified clients must commit to spot audits at any time with 24 h notice. The private

company that owns Green Tick® has no connection with any government, industry, or NGO, and is a registered certification authority in Australia and New Zealand.

The Green Tick® brand has been used successfully once on food products – Australian lamb that was certified Green Tick® Natural and sold out six months before becoming available on the market. Global deployment of Green Tick® has proved difficult; as the owners have had to defend Green Tick® from 64 fakes (so far) in 14 years, fortunately none of these in the food industry. Consistent commitment to genuine sustainability has maintained Green Tick®'s credibility as a robust and reliable eco-label.

Green Tick® presents the ideal proven platform from which to develop a universal, independent, and incorruptible sustainability ecolabel. The Green Tick® brand provides industry with a powerful and robust eco-label; and it provides consumers with authentic sustainability assurance that their purchases are not contributing to the destruction of the planet or people, whether they be resources and farmers just down the road, or on the other side of the planet.

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**Part III**  
**Challenges in Developing and Threshold**  
**Countries to Facilitate the NSP**

# Chapter 13

## Innovative Sustainable Solid Waste Management in Nigeria

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**Abstract** Problems associated with solid waste management (SWM) have proved to be complex in origin and in solution. In Nigeria SWM is characterized by inefficient collection methods, insufficient coverage of the collection system and improper disposal of solid waste. This chapter reviews the current status of SWM in Nigeria. For SWM to be sustainable in Nigeria a greater financial investment needs to be made, possibly including provision through local rates and taxes. In addition, appropriate technologies in line with the nature of garbage generated need to be explored. Finally the effort and role played by the informal sector in SWM in Nigeria needs to be recognised, but there is urgent need for this sector to be formalized so that its role can be geared towards achieving sustainability.

**Keywords** Innovation • Sustainable • Solid Waste Management (SWM) • Nigeria • Federal Environmental Protection Agency (FEPA) • Cart pushers • Scavengers • Resource Merchants • Recyclers

### 13.1 Introduction

The Nigerian population is growing at an alarming rate Statistics show that the population growth rate of Nigeria as at 1991 was 3.0 % per annum with an urban growth rate of about 5.5 % per annum. The average waste generation rate is put at 0.49 kg per day (Adewole 2009). The volume and rate of waste generated is always

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increasing. However, the lack of an efficient waste management system has led to the indiscriminate dumping of waste in the cities. According to Nabegu (2010), the speedy growth of urban population with unplanned urbanization, increasing economic activities and lack of innovation in solid waste management practices in Nigeria complicates efforts to improve solid waste services. Moreover changes in consumption patterns with alterations in the characteristics of waste have also resulted in a quantum jump in solid waste generation (Ludwig et al. 2003). The natural environment has a limited capacity to assimilate these wastes, resulting in environmental pollution, erosion or degradation of natural ecosystems (Ezeronye 2000). Solid waste management (SWM) has emerged as one of the greatest challenges facing state and local government environmental protection agencies in the country. The volume of solid waste being generated continues to increase at a faster rate than the ability of the agencies to improve the financial and technical resources needed to parallel this growth. SWM in Nigeria is characterized by inefficient collection methods, insufficient coverage of the collection system and improper disposal of solid waste (Ogwueleka 2009). In their research Izugbara and Umoh (2004) posited that SWM practices in Nigeria, such as the use of incinerators, waste diversion into the sea and streams, and open dumping, cause further harm to the environment. Despite this worsening situation for SWM in Nigeria there is evidence of innovative improvements in most of the cities, including involvement of the informal private sector, emergency clean-up campaigns, privatization, monthly environmental sanitation exercises, community involvement, improved management of disposal sites and waste recycling, mostly involving the activities of scavengers. Achi et al. (2012) define SWM practices as the collection of generated wastes, waste separation or segregation, storage, transfer and transport, transformation, treatment and disposal. The task force approach in which households are merely forced to observe SWM policies attempting to overcome the problem of SWM in Nigeria was not successful (Izugbara and Umoh 2004). Subsequently the Federal Government produced a partially successful innovative initiative in the form of an environmental sanitation campaign which required all residents in Nigeria to carry out a mandatory clean-up exercise every last Saturday each month. This was enforced through a campaign, and public awareness through mass media. This initiative is still effective in some state capitals, having been supported by some trade unions. For almost two decades now sustainable SWM services in Nigeria have been enhanced by institutional arrangements mainly focusing on privatization (Cointreau-Levine 1994), with further trials currently in progress in this sector. In an attempt to strengthen privatisation the Federal Government has established the National Integrated Municipal Solid Waste Management Intervention Programme in seven cities of Nigeria: Maiduguri, Kano, Kaduna, Onitsha, Uyo, Ota, and Lagos (Ogwueleka 2009). State and local government environmental protection agencies are responsible for SWM in Nigeria. They are charged with the responsibility of handling, employing and disposing of solid waste generated. The state agencies generate funds from subventions from state governments and internally generated revenue through a sanitary levy and stringent regulations with heavy penalties for offenders if they illegally dump and litter refuse along streets.



## 13.2 Government Initiatives and Milestones

SWM in Nigerian cities was originally part of the urban management system and it is still directly attached to local government authorities, which have had different evolutionary phases: e.g. pre-colonial, colonial, and post-independence (Onibokun and Kumuyi 1999). The Public Act 1909 by the then British colonial administration set a foundation to regulate the indigenous peoples' relations with the environment. The colonial masters placed much emphasis on environmental sanitation, introducing sanitary inspectors, who went from house to house to ensure those houses and their surroundings were clean and they applied appropriate sanctions for recalcitrant residents (Ukoje 2011). Considering the subsequent level of deterioration of the environment relating to urbanisation and public health, the Federal Government of Nigeria pursued its mandate to set-up the Federal Environmental Protection Agency (FEPA) in 1988. Also, the National Policy on Environment was launched in 1989 in recognition of the linkage between the environment and national development. The environmental policy which subsequently emerged has been analysed extensively (Ajayi and Ikporukpo 2005). FEPA's mandate is to promote cooperation between federal and state ministries, local government councils, statutory bodies or research agencies on matters and facilities relating to environmental protection and to encourage states and local government councils to create their own state Environmental Protection Agency (EPA), for the purpose of maintaining good environmental quality (FEPA Decree 1989). FEPA documents emphasised sanitation and waste management as part of an integrated, holistic, and systematic view of environmental issues (FEPA 1999). Under the FEPA Act SWM is a major responsibility of state and local government environmental agencies. The agencies are charged with the responsibility of handling, employing and disposing of solid waste generated. The state agencies generate funds from subventions from state governments and internally generated revenue through sanitary levies and stringent regulations, with heavy penalties for offenders of illegal dumping and littering of refuse along streets (Ogwueleka 2003). To harmonize the efforts of FEPA, a State Environmental Protection Commission (EPC) was established for each state in 1989. Edict No. 18 explains the undertakings and responsibilities of the EPC concerning SWM, which include (i) advising the state government on environmental policies and priorities; (ii) formulating and enforcing policies, (iii) formulating statutory rules and regulations on waste collection and disposal; (iv) rendering advisory services and supporting all local governments; (v) preparing master plans on solid-waste collection and disposal; (vi) Monitoring discharges and the environmental impact of these discharges; (vii) Enforcing applicable laws on activities related to the environment and (viii) Establishing environmental criteria, guidelines, specifications or standards for environmental protection. In 1997, a new environmental policy emerged. This was purposely enacted in line with Vision 2010. Vision 2010 committees were instated in 1996 as part of a government development program with the aim of making Nigeria one of the 20 largest economies in the world, able to consolidate its leadership role in Africa and establish itself as a significant

player in the global economic and political arena (Ajayi and Ikporukpo 2005). In 1999, the Federal Ministry of Environment took the responsibility for administering and enforcing environmental laws from the Federal Environmental Protection Agency (FEPA). The Federal Ministry of Environment serves as the overall body charged with the management of environmental issues. The Ministry is empowered to issue guidelines and prescribe measures and standards for the management and conservation of natural resources and the environment. The guidelines on SWM recommended effective, efficient and sustainable waste management strategies requiring that stakeholders be involved in SWM and it spelt out the roles expected of all stakeholders. In 2005 the Federal Ministry of Environmental set out Federal Policy Guidelines on SWM in Nigeria. These detailed the objectives of the National Environmental Sanitation (NES) policy (Ukoje 2011). The Federal Government has also taken other positive measures to improve environmental management through the following (Ukoje 2011):

1. The National Urban Development Policy of 1989;
2. The Urban and Regional Planning Decree No. 88 of 1992; and
3. The Environmental Impact Assessment Decree No. 96 of 1992.

FEPA has instigated the enactment of the following important laws on environmental management:

- The Hazardous Wastes Criminal Provision Decree 42 of 1988;
- The Pollution Abatement in Industries and Facilities Generating Waste Regulation S.1.9 of 1991;
- The Management of Solid and Hazardous Wastes Regulation S.1.15 of 1991;
- The National Effluents Limitation Regulation S.1.8 of 1999.

### 13.3 Solid Waste Generation

According to Ogwueleka (2009) the estimated solid waste generated yearly in Nigeria amounts to 25 million tonnes. This ranges from 0.66 kg/cap/d in urban areas to 0.44 kg/cap/d in rural areas. The constituents of waste generated vary from urban areas to rural areas and likewise from state to state. Waste generated is directly proportional to population, socio-economic status and level of urbanization (Abila and Kantola 2013). The constituents of waste produced per state are a function of socio-economic status, industrialization and commercialization. In their research Achi et al. (2012) posited that the key factors influencing solid waste generation in Nigeria include inadequate technology, lack of facilities for separation at source, strength of SWM policy and enforcement, environmental education and awareness and income status of individuals. Table 13.1 below shows the waste tonnage for some selected urban cities in Nigeria.

**Table 13.1** Waste generation in selected cities in Nigeria

City	Population	Tonnage/month	Density (kg/m <sup>3</sup> )	kg/capita/day
Lagos	8,029,200	255,556	294	0.63
Kano	3,348,700	156,676	290	0.56
Ibadan	307,840	135,391	330	0.51
Kaduna	1,458,900	114,443	320	0.58
Port Harcourt	1,053,900	117,825	300	0.60
Makurdi	249,00	24,242	340	0.48
Onitsha	509,500	84,137	310	0.53
Nsuka	100,700	12,000	370	0.44
Abuja	159,900	14,785	280	0.66

Source: Ogwueleka (2009), Tobore (2012)

**Table 13.2** Composition of waste stream characteristics for selected cities

	Nsuka	Lagos	Makurdi	Kano	Onitsha	Ibadan	Maiduguri	Zaria	Average
Putrescible	59.8	63	59.3	58	56.9	58.5	60.8	58.8	59.38
Paper/ Polythene	25.72	45	23.22	38.42	39.11	37.6	35.6	39.07	35.46
Textile	1.57	3.1	2.5	7	6.2	1.4	3.9	2.13	3.47
Glass and metal	2.5	3	3.6	2	9.2	0.6	4.3	5.15	3.79
Others	9.4	19	14	22	15.4	8.9	31.3	4.33	15.54
Moisture Cont	20.79	28.36	20.27	18.88	21.17	23.52	17.95	18.33	21.15

Source: Amberis et al. (2012)

### 13.4 The Composition of Solid Waste

There is no doubt that the greatest segment of the total solid waste generated in Nigeria is organic; higher than glass, textiles, metals, paper, plastics ceramics and bones (Dauda and Osita 2003; Ogwueleka 2003). Nabegu (2010) argued that there is a striking difference in the organic composition of solid waste, which is much higher in the low income areas than the high income, while the paper and plastic content is much higher in high income areas than low income areas. This is as a result of variation in consumption patterns, and cultural and educational diversity. Ogwueleka (2009) noted that packaged products are mostly consumed by high income earners, thereby generating inorganic materials such as metals, plastics, glass etc. Waste characteristics vary according to season, income level, population, social behaviour, climate, and industrial production, the size of markets for waste materials, the extent of urbanization, and effectiveness of recycling. Table 13.2

shows a comparative analysis of solid waste composition in some major cities in Nigeria. It can be seen that the constituents of the solid waste are quite similar except that the amount and proportion present in waste dump sites varied is greatly influenced by the type of activity dominant in the environment where the waste is generated and deposited. This further shows that the great majority of the total solid waste generated in Nigeria is organic. The high level of reuse of recyclable waste reflects the extent of poverty, typical in the developing countries, where over half of the waste stream comprises organic materials (Ogwueleka 2009).

### 13.5 Solid Waste Collection and Transportation

In Nigeria the responsibility of solid waste collection rests solely with the state and local government environmental protection agencies. Waste collection is an imperative aspect of waste management, hence over the years, diverse waste collection techniques have been in use worldwide (Achi et al. 2012). These methods as stated by Lasisi (2007) include: house-to-house, communal depots, curbsides, block systems, commercial and industrial collection, and bulk loading. Where the waste collection is undertaken by the private sector it is a function of income of the owner of the waste to be able to pay the amount charged. Informal solid waste collection plays a vital role towards achieving innovative sustainable SWM. Informal solid waste collection processes operate in parallel with official agencies in some major cities of the country. Informal collectors provide the service for a fee. According to Ogwueleka (2009), the most widely adopted waste collection system in Nigerian urban areas is the stationary container system; the residents deliver their waste to the storage containers, which are located at 500–800 m intervals in open spaces at the end of streets or at road junctions. Because of the high level of efficiencies of SWM services rendered by the private sector the collection of refuse in most urban areas is sublet to private companies. The current interest involving private companies in solid waste is driven by failures of government agencies to provide adequate services, so as to achieve more innovative sustainable SWM. A wide range of vehicles is used for solid waste collection. Compactor trucks, side loaders, rear loaders, mini trucks, tippers, skip trucks and open back trucks are the most commonly used collection vehicles. Yet 60 % of waste collection vehicles are mostly out of service at any one time (Ogwueleka 2009). And even the usable trucks are characterized by frequent breakdowns resulting from overuse (Agunwamba et al. 2003).

### 13.6 Solid Waste Recycling

Recycling is the removal of materials from a solid waste stream and the use of those materials in other innovative ways. Recycling is a more environmentally desirable method of SWM than incineration (Ruzi 2001), and it has ample economic, social

and environmental benefits. According to Medina (1993) waste recycling can help generate income; save water and energy; cause less pollution among others, and these will in turn reduce operating costs, lessen the amount of waste to be generated, collected, and subsequently disposal, and it extends the life of disposal facilities. Solid waste recycling is considered as a source of direct employment through both public and private waste recycling facilities, indirect jobs through businesses that purchase recyclable commodities, and a source of induced direct jobs by means of manufactures or re-users of recyclable materials and shops selling recycled merchandise. Also in his study Agunwamba et al. (1998) argued that efficient recycling and composting could save 18.6 % in waste management costs and 57.7 % in landfill costs. About 60 % of wastes collected in Nigeria are organic waste, but only 8 % are recovered for reuse (Ogwueleka 2009). At the moment recycling or recovering activities of solid waste are mostly practiced by the informal sector in Nigeria, owing to the absence of formal resource recovery programmes in the country (Ogwueleka 2003). Recycling and /recovery are undertaken by scavengers who pack refuse for a fee and salvage any recyclables prior to the disposal of the waste. In Onitsha, a city in eastern Nigeria, 48 % of the raw materials used by 40 % of indigenous artisans and small-scale industries are obtained from scavengers (Ogwueleka 2009). This illustrates the innovative role played by the informal sector towards achieving sustainable SWM. Details of this are discussed below.

### 13.7 Solid Waste Disposal

Disposal of solid waste generated in a community is a vital step in a SWM. In Nigeria most of the refuse collected is disposed of in two main ways: open dumping and burning. In most urban areas a designated collection point is provided by the state or a local environmental protection board so that the public can dump refuses. A metal box container is provided that can be mechanically loaded onto trucks (Nabegu 2010). Solid waste is generally dumped openly on available space, buried or burnt at the side of the road, in every available open space (Achi et al. 2012). In Lagos state there are landfills, while in Abuja, the federal capital, a controlled dumpsite is located along the outer northern expressway (ONEX). Open dumping is damaging to the environment and is a health hazard to scavengers at the dump site. It pollutes groundwater, spreads infectious diseases and highly toxic smoke from continuously smouldering fires and gives off foul odours from decaying refuse (Ogwueleka 2009). However, the significant participation of the informal sector as well as the private sector in SWM is associated with innovative approaches and may yield positive results.

### 13.8 Community Participation in Solid Waste Management

The community and its representatives have direct concerns in SWM, as residents, service users and taxpayers. Communities in low-income areas generally receive marginal or no services in terms of infrastructural service provision such as electricity, drinking water, sanitation, drainage and also waste management among others. However, they sometimes take the initiative to organise community-based organisations with the sole aim of self-help and improving their living conditions (Ukoje 2011). In some instances the community-based organisations (CBOs) may obtain financial and technical support from various agencies. Their activities can involve direct participation in SWM. Community members, local rulers and leaders in urban communities play different roles in SWM. Local leaders play the role of intermediaries between communities and municipalities. Local leaders can be divided into traditional, formal and informal leaders. These roles correspond to different levels of community participation in SWM. Community members can participate in SWM by depicting proper sanitation methods, by contributions in cash, kind or labour, by participation in consultation and by participation in administration and management of solid waste services (Bello 2011). Proper sanitation etiquette is considered as the most vital role expected of a community to facilitate sustainable SWM. Bello (2011) identified such behaviour to include:

1. Adapting daily habits to an agreed solid waste system (rules, schedules, e.g. to offer these at the right time and place to a collection team);
2. Bringing garbage in a plastic bag, a special bin etc.;
3. Cooperating in clean-up campaigns;
4. Keeping houses and the immediate environment clean (drains, streets in front of the house);
5. Separating waste into organic and non-organic, wet and dry, keeping plastics, paper and other recyclable materials apart;
6. Contributing in cash, kind or labour, which represents more direct contributions to the operation of SWM.

### 13.9 Solid Waste Recycling Activities by the Informal Sector

The role of the informal sector in waste collection in Nigeria is vital. Ogwueleka (2009) argued that the informal sector is responsible for removing 30 % of total generated waste in the urban areas of the country. This sector is a body of its own with little acquaintance with integrated waste management techniques of collection, transportation, recovery, recycling and merchandise recovered and recycled material to industries within and outside the country. Evidence of positive results yielded by the SWM activities of the informal sector to the environment is obvious in Lagos state (Opeyemi 2012). The informal private sector is labour intensive and serves as

a source of income by providing ample job opportunities to many people. It involves unregistered, unregulated activities carried out by individuals, families, groups or small enterprises involving low technology manufacturing or provision of services. The stakeholders are consumers/scavengers, middlemen, and manufacturers. Though there is no information regarding the official population of scavengers in the country. Informal sector solid waste collection and recycling is carried out by the less privileged and marginalized social groups who resort to waste collection and picking, scavenging, and recycling for income generation and for everyday survival (Ukoje 2012). According to Ogwueleka (2009) informal waste collectors mostly use pushcarts, wheelbarrows and sacks to collect waste. They provide service coverage in areas where agencies cannot, some of them concentrating in public places like markets. Another valuable contribution of the informal waste management sector is in recycling, in the form of either itinerant waste buyers or scavengers interested in buying used materials such as plastics, paper, used electronic electrical equipment, glass and metal. Such activities have a great impact on innovative sustainable SWM. Even though the informal sector has not been officially integrated into the SWM system in most parts of the country, in her study Tobore (2012) stated that the Lagos state waste management authority had recently introduced recycling banks in some parts of the state, where some scavengers were employed to be the resource managers. Under this arrangement households are encouraged to deposit their recyclables like plastics, cans and bottles while the organic components are collected from door-to-door. The activity of informal waste collectors varies depending on how and at which stage or where the recovery takes place. Ukoje (2012) identified five main categories of informal waste activities:

- (i) Itinerant waste buyers: Waste collectors who go from door to door collecting sorted dry recyclable materials like newspapers, glass, metals, tin cans and plastics from households or domestic servants and shopkeepers, which they buy or barter and resell to dealers;
- (ii) Street waste pickers: Collectors who recover raw materials from mixed wastes discarded on the streets and communal dumps within neighbourhoods of households, commercial establishments and industries before collection;
- (iii) Municipal waste collection: Secondary raw materials are recovered from vehicles transporting municipal solid waste to disposal sites;
- (iv) Waste pickers from dumps: Waste pickers and scavengers who sort through wastes that are dumped at major dumpsites in a neighbourhood and on the urban periphery. These wastes can originate from institutions, commercial areas or households.
- (v) Direct waste collectors: These provide waste collection services in several areas especially in commercial areas and residences where there is no normal municipal system in place. The motivations for this activity include a fee that is charged and the income that can be made from sorting and recycling of the waste collected. The following are identified as informal SWM solid waste management stakeholders in Nigeria:



### 13.9.1 *Cart Pushers*

Cart pushers constitute a group using purpose-built carts for house-to-house waste collection in most cities (Fig. 13.1). Cart pushers are believed to be brought into the industry by the ineffectiveness of the relevant authorities responsible for SWM. In Lagos state alone there are approximately over 5,000 cart pushers operating within the industry and about 70 % of waste generated is collected by cart pushers (Olugbenga 2006). They normally embark on house-to-house collection and subsequently transfer the waste into waste collection containers. Cart pushers are also involved in waste recovery, by means of sorting and recovering reusable and recyclable materials from waste collected before final disposal of the remains. They collect refuse from house-to-house at an agreed cost.

### 13.9.2 *Scavengers*

Scavengers recover recyclables and re-usable materials either off-site or on-site, such as aluminium, glass, paper, metals etc. (See Fig. 13.2). The majority are aged between 17 and 30 years old and are driven into this activity by poverty (Ogwueleka



Fig. 13.1 Typical cart pushers (Source: Olugbenga 2006; Opeyemi 2012)



Fig. 13.2 Typical scavengers on disposal sites (Source: Opeyemi 2012)



2009). Most operate with no appropriate protective clothing. Like cart pushers some scavengers walk from house to house, and street to street to retrieve recyclable and re-usable materials, although most of them limit their activities to waste disposal sites (Olugbenga 2006). Many households now store waste paper, cans, glass, and plastic separately and sell to scavengers when they visit (Agunwamba 2003). A study conducted by Saleh (2008) in Kano, a city in north-western Nigeria, by Saleh (2008) showed that no fewer than 25,000 people were engaged in scavenging, recovering about 15 % of the solid waste generated in the city. Apart from income generation to teeming unemployed youth, scavengers that are involved in an informal recovery of plastics can provide cheap raw materials for plastics manufacturing industries (Mukhtar 2008). Once resource materials are recovered from waste, scavengers store them by building waste heaps prior to selling or transporting to the recycling industries. According to Olugbenga (2006) in Lagos only about 50 % of the recovered items are utilized by the local recycling industry, the remaining 50 % being exported to neighbouring countries such as Ghana, Togo, Cameroon, Mali, Republic of Niger, and Sudan for both industrial and personal use. Activities of scavengers in some instances involve processing the recovered waste materials, which may include washing or burning depending on the material type before selling to either recycling industries or resource merchants.

### ***13.9.3 Resource Merchants***

Resource merchants are traders engaged in the purchase of all recovered recyclable and re-usable materials from the scavengers. Some members of this group are retired scavengers who cannot scout for materials on the site again due to either old age or improved financial capability. Some wealthy resource merchants extend their trading to neighbouring countries by exporting recovered resources thereby earning foreign exchange. Resource merchants are also very influential and obtain local purchasing orders (LPOs) from companies to supply recovered materials.

### ***13.9.4 Recyclers***

Recyclers are also an integral part of informal waste management. They include micro- and small scale recycling companies, who transform recovered waste materials like paper, aluminium, animal by-products, plastics and scrap metals etc., to valuable materials and raw materials for the consumption of the industrial sector (Olugbenga 2006). The recycling sector involves huge investment of money, where some specialized equipment and machines are used for the transformation of the retrieved items to finished products or raw materials that are also used in many other ways. Some of these recycled products and raw materials are exportable products through which foreign exchange is obtained.

### 13.10 Conclusion

Based on the above account, it can be said that the current practice of SWM in Nigeria is unsustainable. For SWM to be sustainable in Nigeria a greater financial investment needs to be made, possibly including provision through local rates and taxes. This could possibly be realised with strong support from political and traditional rulers. An enlightenment campaign is another means of motivating households towards achieving sustainability, particularly in the aspects of waste disposal of which many are ignorant regarding the inherent dangers associated with improper waste disposal such as pollution and diseases. Developed countries treat sustainable development as an environmental concept placing the emphasis on intergenerational equity focusing on future needs (Carter 2001). The developed economies of Japan, South Korea, Taiwan, and Singapore ultimately aim for the elimination of landfills from their systems. In these countries, SWM systems have stabilized through a variety of legal measures supported by national funding (Shekdar 2009). Likewise, in these high-income Asian countries, their citizens are highly aware of their responsibilities making SWM a common practice. Public awareness through improved education has an important role to play. This is the key to the success of any SWM policy. Environmental education for the communities should be a priority. This will help communities appreciate sound practices such as sorting and recycling. This will also help encourage communities to abandon illegal practices such as burning, and open space dumping. In order to encourage public support an effective environmental policy targeted at the poor needs to have elements of economic incentives. There is need to develop a policy that promotes community involvement in waste management. Finally there is urgent need for the informal sector to be formalised so that its role can be geared towards achieving sustainability.

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# Chapter 14

## On Innovative Sustainable City Architecture Models for Sustainable Cities in Asia or in Europe

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**Abstract** As most of the people throughout the world host into cities so, urban environment should be a better place to live. The subject of sustainably needs to be focused in relation to this obvious trend: an avoidably rising of urban population and its fast development rate causes the problems of environmental compatibility between demographic burden and the amount of natural resources which cities consume. In this situation green building and sustainable development are the most important terms in construction industry. In Asia, the green building effort is still at an early stage, at levels below 5 in the sustainable scale of 1–10. Under such circumstances and in the area of sustainable architecture, biomimicry or bio inspired design is debated by researchers, professionals and experts. In fact, constructing green buildings and constructing old ones greener neither is going to work out the world's environmental issues nor is it going to cause energy self-sufficiency or drop utility bills, but it is one of the most crucial areas on which we will probably see world fights about change with view to the protection of the atmosphere especially, with consideration to fast increasing of population.

**Keywords** Innovative sustainable city • Architecture models • Sustainable cities • Asia • Europe • Environmental compatibility • Bio inspired design • Biomimicry

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## 14.1 Introduction

As most of the people throughout the world host into cities, urban environment should be a better place to live. This leads to re-designing the way we think and arrange our lives which requires vision, leadership and courage. On the other hand, to provide the conditions for sustainability there should be rules, regulations, and motivations that respond to whatever we see, experience and understand. Designing and establishing sustainable towns and cities requires cooperation with the government on all levels (Brown 2009). Since the industrial revolution, the world has observed countless technological attainments, population growth, and increases in resource use. In this case, the built environment is one clear example of the effect of human activities on resources. Under such circumstances, the industrial principle must be in accordance with health, resource efficiency, and productivity which are known as green or sustainable building (Sustainable Building Technical Manual 1996). According to Zabihi et al. (2012), the main challenges in construction are related to sustainability, leading to a growing attention in sustainability during construction industry particularly in developing countries in recent years. Therefore, sustainable construction has a vital role in sustainable development and growth not only due to contribution to the national economy but also because the constructed environment has a significant effect on health, life quality, comfort, security etc. Nowadays, achieving sustainability in architecture and construction is the target which is highlighted more and more. According to the Zabihi et al. (2012), the main target of sustainable architecture is creation and innovation of an artificial healthy environment according to ecologic design and resources effectiveness and efficiency.

## 14.2 Importance of Green Spaces and Green Buildings

During recent decades, the area and population of urban areas have increased in Asia while in Europe almost a fifth of people live in cities. Population growth in urban areas creates economic, social and environmental problems. Overcrowding in cities goes hand in hand with the desertification of the rural areas. Under such circumstances, urban green spaces are important and substantial components of urban planning due to the function and role which they play in improving the quality of life and the sustainability in cities (Quintas and Curado 2009). Actually, sustainability has been a crucial feature for the urban planning more than ever before because an increasing proportion of the world's production and consumption along with waste generation is focused in cities. Consequently, communities are more connected with built environment as well as nature in urban spaces which led to the design of new and innovative landscape shapes in the countryside along with the generation of parks and gardens in urban spaces (Baycan-Levent et al. 2004). According to Van Leeuwen et al. (2010), green spaces are important and substantial

environmental properties for each city; in diverse cities and towns, new plans related to ecological methods have been developed for the management and the protection of nature in urban green areas. In fact, urban green areas are important because they diminish the effect of the negative outcomes of human activities by absorbing pollutants and releasing oxygen, while keeping a definite degree of moisture around the environment, controlling rainfall as well as soil erosion, diminishing changes in temperature, shaping the foundation for the preservation of wildlife and plants, influencing the healthy urban environment through providing clean air, water and soil as well as by enhancing the urban climate along with keeping the balance of the city's natural urban environment. In any case, they maintain local natural and cultural heritage through preparing the environment for a variety of urban wildlife as well as urban ecosystems. Population growth leads to an increase in housing density, eradicating the capacity for green area and exacerbating urban issues. Therefore, the importance placed on increasing housing should also be supported by the complete provision of environmentally friendly and green infrastructure (Grant 2010). Nowadays, the world is in the middle of a global building boom with a considerable use of global energy. In this situation, to enhance and improve the collaboration between natural environment and building construction successfully, specialists indicated the need of an integrated design approach or entire building design approach which invite and request all of the members of planning, design, construction and operation team to consider the project's objectives, building components and building's material as a united system while analyzing how these elements work best together and can be organized to save energy as well as to diminish environmental impact (Hong et al. 2007). In this sense, green buildings are planned and designed with the aims to decrease the negative effects of built environment while creating comfortable, economically prosperous and healthy places for people who live, work and play in them (Pyke et al. 2010).

### **14.3 Reasons for the Absolute Necessity of Green Buildings**

Humans inhabit buildings. Although they may possibly like being outdoors, people all over the world spend the majority of their time inside the buildings. Therefore, buildings have been our natural home with great effect on our lives and the environment both locally as well as globally. In other words, the population growth is predicted to double by 2050. In this regard, property industry needs to be innovative and creative in the creation and the management of cities, societies and buildings which are not only ecologically effective and efficient, but also encourage a high quality of life for all who go through them (Jastrup and Driquet 2012). Admittedly, buildings have an important effect on the environment by accounting for one-sixth of the world's freshwater extractions, one-fourth of its wood crop along with two-fifth of its material and energy streams, thus having a great impact on both environment and health. Furthermore, constructions influence spaces outside their nearby locations, influencing watersheds, air quality, and public transport facilities of

communities. Therefore, all professionals who plan, design, construct, operate and maintain buildings will need to have a new practical and theoretical understanding, skills and views to ensure that the built environment and communities have a net zero effect on the local and global environment and that residents will stay healthy and productive, while providing many other favorable features and quality characteristics (Hattan et al. 2010). As a matter of fact, biodiversity along with natural environments are withdrawing at distressing and extraordinary speed because of our overuse of natural resources and our activities which affect the atmosphere. This leads to the destruction of ecosystems which provide all livelihoods, including food, clean air, fresh water and shelter. Therefore, people must start with the preservation of biodiversity along with the reduction of humanity's effect on natural environments (Rietbergen 2008). In fact, selection of materials for specific products is of paramount importance due to their influences on the use of natural resources, the use of products and the consumption of energy (Kanbul and Bozkurt 2010). For ecological and green buildings, durability, flexibility, recyclability, low toxicity material and low impact on the environment are essential in the process of material selection. In this connection, emissions in manufacture and components containing ozone running down materials as well as green-house gases should be taken into account (Ayalp 2012).

#### 14.4 Sustainable City Architecture Models

The subject of sustainability needs to be focused in relation to this obvious trend: an avoidable rise of urban population and its fast development rate causes the problems of environmental compatibility between demographic burden and the amount of natural resources which cities consume. One of the main factors of this problem is the 'form' of city (Castrignanò and Landi 2013). Urban Sprawl has shaped the urban trends of the last 30 years, i.e. a low density urban development model developing in an unrestricted and constant way (Galster 2001). According to Castrignanò and Landi (2013), Sprawl city has a negative environmental and socio-economic effect. Thus, to achieve a sustainable city, we should think about the densification of the urban environment instead of diffusion. Keeping people, facilities and substructure closer together is the only way to decrease the amount of energy consumption and surge effectiveness (Burdett 2008). In Wirth's opinion (1983), compactness is supposed to be the only eco-compatible urban form for future urban development by the combination of the following three components (i) density, (ii) number and (iii) diversity. The urban form related to geographic decentralization is different among the nations through the world. In this regard, Asian cities have the highest level of density while European cities have an intermediate density (Millennium Ecosystem Assessment 2005). High density or 'compact' cities have some benefits for environmental sustainability by increasing the use of motor vehicles, leading to reduction in fossil fuel incineration, less overcrowding traffic and decrease sprawl when planned accurately and in case of an effective substructure provision. Actually,

compact strategy comprises: a city structure or widespread plan which gives well defined precedence to compactness, huge building or open space or green blocks that come close to urban neighborhoods, string highlight on growth and intensification and more effective use of neglected or underutilized land throughout the urban center and a high level of combination of functions (Marcotullio 2001). Buildings provide infrastructures and opportunities toward sustainability. In this case, sustainable architecture plays an important role and contains all phases of building such as planning, designing, building and restructuring. Some of these sustainable architecture models include (Wikipedia 2013):

- Eco-industrial parks: The purpose is to link a number of firms, companies and organizations to work together while decreasing environmental impacts as well as enhancing their economic functioning.
- Urban farming: This is the process of growing and distributing food and raising animals in and around the city or in urban area. It is combined with ecological systems and urban economy and is different from rural agricultural.
- Urban infill: Nowadays many cities are moving from a suburban sprawl model of development to urban dense living which leads to a denser central of city residents. These residents have growing demands affecting the architecture of city. These kinds of demands can be fulfilled by new construction or historic rehabilitation. Actually, living in higher densities is not only economic but also provides efficient and effective infrastructures.
- Walkable urbanism: This is a development scheme which is competing with suburban sprawl. As a matter of fact, it encourages diverse population, a full mix of uses, walkable streets, positive public space, integrated civic and commercial centers, transit orientation and accessible open space.

Streets play a vital role for public realm in the way they provide chances for traders as well as suppliers to sell their products, for children to play and for people to stop. While the growing number of automobiles, have decreased these activities, recovering streets as places for people reinforce cities in a range of ways: environmentally, socially, and economically (UN-Habitat 2012). Actually, transportation is an important infrastructure which shapes the urban form and affects economic as well as well-being besides contributing to the city's financial, social and environmental sustainability (Transportation Master Plan 2009).

- Individual buildings (LEED): This is leadership and environmental design, known as a green building certification system, which recognizes the entire building's sustainable design through classifying key areas of excellence such as sustainable sites, water efficiency, energy, materials and resources, indoor environmental quality, locations and linkages, awareness and education, innovation in design and regional Priority.

O'Mara (2012) defined high performance green building which can be developed as a living system, and, like all living organisms, depends on a protective environment to gain sustained health and function throughout its life span. These buildings are designed and aimed at an environmental function and economic aspects throughout their lifetime. In the area of sustainable architecture, biomimicry



or bio inspired design is debated by researchers, professionals and experts (Biomimicry Guild 2007; Berkebile 2007). Biomimicry comes from the Greek words 'bios' meaning life and 'mimesis' meaning imitate and it includes the study of nature's best ideas and mimicking them to solve human issues while, in an easy terms it is the 'conscious emulation of nature's genius'. Based on Gonot (2013), considering architecture and built environment, the forms that have been used in modern contemporary architecture are showing the nature's different forms. In this case, the work of Frank Gehry and Santiago Calatrava are ideal samples of architecture that use factors come from nature. Actually, examples of successful biomimicry are related to products or materials rather than buildings or construction systems, which tend to mimic one feature of a single system or organism. While some architectures use biomimicry as a technique to enhance the sustainability of their construction, biomimicry can also be used as a source of innovation (Baumeister 2007a). In fact, Biomimicry can be used in three ways including Form (such as imitate dragonfly wings in order to create lightweight structures) Processes (for example imitate photosynthesis to catch solar energy) and Systems (such as building wall systems that imitate the homeostasis in organisms that allow them to control their inside conditions like temperature) (Zazerra 2013). Mimicking life, involving the complicated collaboration between living organisms that prepares ecosystems is both a readily accessible example for humans to discover it and an exciting option for future human residents (Pedersen Zari 2007). On the following pages, there are some examples for these architectural models relating to sustainability.

## 14.5 Examples of Sustainability Models in Asia and Europe

Nowadays, due to the importance of sustainability we can see that most of the countries throughout the world are applying sustainable policies. Actually, green building and sustainable effort has been done since decades as we make every effort to apply resources in a cost effective way with the most valuable inspirations coming from America and Western Europe (Smithing and White n.d.). Although public-private partnership projects (PPPs) according to Western models can sometimes be very successful concerning Sustainability and service quality (Rashed et al. 2011) and PPPs are generally suitable for Asia, ecologically and socially problematic PPP construction megaprojects, for example, the internationally known and infamous underground station project S21 in Stuttgart, Germany, which made negative headlines in the New York Times should be avoided at any price. In favor of the S21 project, a historical train station was partially torn down, centuries old trees were cut down, the groundwater was contaminated (Slackman 2010) and the construction work was already started before asking the permission of responsible authorities years before doing a plebiscite, in which a positive result was forced by obvious manipulation (René Roca 2012). Currently, some policemen have to stand trial for extreme acts of violence towards peacefully demonstrating citizens on September 30, 2010, which went down into history as "Black Thursday", having several

children traumatized and having caused a senior's loss of eyesight due to the area-wide violent use of water cannons (del Cerro 2013). The verdict is expected in December 2014 (Fischkeller and Fähnle 2014). In spite of all these grievances and huge financial investments, it remains open, if the S21 train station project will ever be finished. This kind of megaprojects, ignoring environmental, economic, and social concerns should not serve as a model for Asia's future PPPs, which are supposed to take environmental, economic, and social concerns into account. Actually, Asia is at a crossways today, because growth is the most crucial policy purpose of Asia's developing countries. Along with an increase of economic rates, developing Asia is progressing to become a middle income region. This fast economic growth has been associated with high rates of material and energy usage. The expansion of resource consumption in Asia has been faster compared with global average. This growing share of resources withdrawal along with pollution and carbon dioxide emissions have been features of the constant industrialization process of Asia. Asia's urban population is assumed to expand by 2050. While its urbanization will be associated with a quick rise in energy consumption and request for individual possession of vehicles along with a constant dependence on fossil fuel and energy demanding industries (ADB-ADBI 2012), buildings are a substantial contributor to Asia's energy consumption. More than half of the world's new buildings are constructed in Asia while most of them are large commercial office buildings along with mixed use developments that include modern design techniques such as glass appearances and centralized air conditioning (Hong et al. 2007). Although in Asia's urban centers, most of the new buildings do not take atmosphere protection into consideration, but Asian government and its companies benefit from constructing buildings and even cities which are carbon neutral. In this respect, green buildings have the most considerable market in faster developing countries in Asia (China, India and Indonesia); however, the green building effort is still at an early stage, at levels below 5 in the sustainable scale of 1–10. In this case Asia has a growing number of energy efficient buildings:

- **China: Agenda 21 Demonstration Energy Efficient Office Building (Joe Huang):**  
This building is located in the western section of Beijing and the second largest green area in the city which was joint attempt of the Chinese Ministry of Science and Technology and US department of energy. One of the project's purposes is to prove that substantial extra energy savings over the current construction energy standard in China are attainable in ways that are repeatable and cost-effective in China's developing constructions market. Actually, this project is supposed to reach significant cost savings without using the most developed and complex techniques. The building design concentrates on 'state-of-the-shelf' techniques and the project is changeable and flexible related to innovative methods. In other words, this building has a number of energy preservation aspects containing both building envelope along with mechanical system measures. As a matter of fact, cross form building design was applied to increase day light capability, while windows placed on the north and south façade were employed to better control of solar heat. Actually, the entire building design method was

applied to recognize the most cost-effective energy policies for this building including:

- Light colored wall along with roof surfaces
- Recessed windows
- Photovoltaic (PVs) along with geothermal power systems
- High efficiency lighting
- Low emissivity window glazing
- Day lighting
- Decreased window height
- Improved chiller efficiency

Most of the energy aspects in this building are very attractive for the Chinese building market. China's Ministry of Construction gave the building its top award for the best green building in China in 2004.

- Malaysia: Low-Energy Office Building (LEO) (Hong et al. 2007);

This building is the first government building in Malaysia that is built according to energy-efficient design which is located in Putrajaya. This building actually displays energy-efficiency along with cost effective aspects in Malaysia by saving more than 50 % of energy in comparison with buildings without energy-efficient design. The project was finished in 2004. The building applies a broad variety of design components and innovative techniques including:

- The windows are positioned to the north and south with less direct sunshine which are protected by suitable mechanisms while increasing light to enter and reduce the transmission of heat.
- The thick and light colored walls of the building decreases heating of the walls and isolated 2.5 times better than be traditional brick walls.
- The roof of the building is isolated with 100 mm isolation while the second cover of roof protects the roof surface and avoids direct solar pollution. Along with them, the green landscape of the roof provides shade and improves aesthetics.
- The four story entrance hall actually provides deep day light into the center of the building while there is a solar wall at the top of the entrance hall which naturally cools the air by a few degrees.
- This building makes use of high efficiency light fittings that automatically switch off when there is appropriate day light. Furthermore, a motion detector automatically turns the lights and air conditioning in the room off when no physical motion is detected.
- A high quality filtration system improves inside air quality.
- Singapore: Headquarters of Urban Redevelopment Authority (Hong et al. 2007);  
This building has a 5 story stage and a 16 story office tower which is built in 1999. The stages are connected to the tower by the 5 story glass entrance halls functioning as facility center. Energy efficient aspects of this project include:

- Cohesive building design (this building includes low emission double glazed light green glass windows which reduce solar radiation and transmission. The building's granite exterior layers provide good isolation, while aluminum umbrellas offer shade as well as decrease heat).
- High efficient Mechanical and Electrical Equipment (lighting system applies greatly effective fluorescent lighting. Motion detectors reduce waste of energy by turning off systems when no one is there. The air conditioning system is changeable while changing speed operation controls the air flow of the air handling unit in accordance with load changes to save energy).
- Developed and innovative lift system (the lift control system of the building permits the passenger to choose the desired floor at the elevator lobby which provide fewer stops, shorter waiting times along with a faster process, leading to lower energy consumption).

Actually, Singapore is named the greenest city in Asia. Singapore's purpose is to green 80 % of its building standards by 2030. When this target was set back in 2005, there were only 17 green building projects in the state while there are 940 green building projects nowadays. Along with new buildings, modifying the existing buildings toward green building and energy efficiency plays an important role to green the city although green measures are more expensive for modifying than for new constructions. Additional, Singapore motivates Thailand and Malaysia governments that have started to green building over the last 10 years (Newsletter Q1 2013).

- Germany: Kranhaus Süd, Cologne (Going For Green 2011);  
This building was developed by Deka Immobilien GmbH in April 2010. The creative and innovative architectural design of the office building is similar to historic loading cranes. As a new innovation in this area, the building obviously represents Cologne's commitment to waterside urban growth. Actually, this building obtained specific praise for its economic and ecological features including renewable energy consumption as well as the use of construction materials with recycling potentials. Cooling and heating are supplied by a geothermal underground hole and the box type window covers allows for an energy efficient natural air circulation of offices on all floors.
- Finland: Lintulathi Office Building, Helsinki (Skanska 2009):  
This building was the first office project in Europe which received a platinum LEED (Leadership in Energy and Environmental Design) certification during the fall of 2010. In other words, this project enrolled within European Union's Green Building Program, pointing toward the progress of energy efficiency of non residential buildings in Europe. This project as energy efficient office building is provided with renewable electricity which is sourced from hydroelectric and wind power posts along with effectual area heating and cooling. Actually, this building has been designed to decrease the heat influence as well as the light pollution. Alongside, in this building environmentally construction materials and regional employees were used.
- United Kingdom: Lion House, Alnwick (Going For Green 2011);

This building is the first certified low emissions office in the UK which is designed to obtain admirable standards of sustainability and environmental function, demonstrating the Department for Environment, Food and Rural Affairs' leadership in comprising and delivering sustainability. This office building is greatly effectual, comfortable for building users and has low effect on the environment. This project was awarded due to the innovative and creative use of real time functioning response to its users throughout a traffic light system which is arranged on central ceilings all over the offices to notify residents once windows may be open in natural air circulation manner and when mechanical ventilation is working. The facilities management team together with the building users was included from the start to the completion over the different construction phases across to ensure a suitable management of the building and its technologies in its subsequent use.

## 14.6 Current and Future Practices

Nowadays, humanity's need to natural resources along with its ecological effects, increase the planet's reformation capability around 30 %. Hence, if people persist the same way of resource consumption by the early 2030s there should be a need for second planet to sustain with humanity's need for goods and services (The World Wide Fund for Nature 2008). Regarding the Ecological Footprint (EF) estimation, our present situation is unsustainable in the long run, so there is a need to find ways which people can meet their current needs, while not affecting the quality of environment nor to decrease the capacity of future generations to meet their own needs. In fact, humans are not the only species that need to be considered. In a situation, in which the world's population is increasing, there is a vital demand for action on all levels to protect natural resources and to improve the environment as well as to assist in building sustainable communities (Gough and Sharpley 2005).

## 14.7 Conclusion

The built environment has a high level of responsibility for global environmental and social issues, a massive amount of waste, material and energy consumption and greenhouse emissions. It is obvious that a movement must be made in the ways in which the built environment is created and preserved (Pedersen Zari 2007). In other words, constructing green buildings and constructing old ones greener neither is going to work out the world's environmental issues nor is it going to cause energy self-sufficiency or to drop utility bills, but it is one of the most crucial areas on which we will probably see world fights about change with view to the protection of the atmosphere. Nonetheless, if all new buildings make energy efficiency a purpose,

it will still be a modest contribution compared with the energy use according to the current standards. Actually, building energy efficiencies will be reached via good management practices of building workers, increased energy saving manners of building residents along with cost efficient building improvement by owners (Hong et al. 2007). In spite of increasing public knowledge and governmental encouragement related to advantages of green buildings for the environment, there is still restricted public understanding of health and well-being along with the economic incentives which green buildings offer (Newsletter 2013). As a matter of fact, while buildings are considered for about 30 % of the world's entire use of energy, the method in which buildings are planned, designed and constructed today not only affects on conducting expenditures but also will influence the world's amount of energy usage forms and environmental stipulations for future years, as buildings last for years. However, there are lots of difficulties regarding the implementation of sustainable architecture models for cities as well as buildings, but there are numerous sustainable constructions through Asia and Europe. In fact, everyone is responsible. If sustainability is our goal, we cannot just rely on strategies and policies to reach this objective. Actually we need to change the way in which we think about our world. Everyone is part of the web of life, allowing us to decide whether we want to hurt the planet or whether we help it to stay sustainable by increasing awareness about the principles of sustainability and include them into our daily practices. Sustainable architecture, especially in crowded Asian cities, can contribute to reach this objective.

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**Part IV**  
**Summary of Problems and Strategies for**  
**the NSP**

# Chapter 15

## Summary of Problems and the Current State of Play

**Odile Schwarz-Herion**

**Abstract** History has shown that transformations often take unforeseen turns and do not rarely do a zig-zag course until arriving at the desired result. Furthermore, transformations are almost regularly steered by people who are closer to the top than to the bottom of society in terms of money, networks, and education. The examples from history have also shown that the timeframe of transformations frequently strongly deviates from the envisioned timeframe and that the results are often reached much later and in another way than previously expected. Social reforms which take the people's will into consideration prove out to be more viable and sustainable than theoretical paradigms – especially if those paradigms have theoretical flaws and are additionally hijacked by people with very different agendas. Beyond the socio-political and economic challenges humankind is facing currently, there are major grievances in the environmental sector. Nevertheless, these challenges can also be turned into chances by creating new markets in industrialized as well as in threshold or developing countries.

**Keywords** Zig-zag-course of envisioned transformations • Foreign interference • Radicalization • Theoretical ideologies versus viable paradigms • Sustainable social reforms

As shown in the book at hand, humankind is facing many challenges in the socio-political, economic, and ecological sector until it might finally arrive at the NSP, i.e., at a scenario in which a liberating, humanistic, and ecological reform might change the character of global civilization, leading to global solidarity, mutual cultural enrichment, and economic ties as suggested by the GSG (Raskin et al. 2002). This kind of scenario is only realistic if humankind will manage to deal with the current challenges in a successful and peaceful way.

Hereinafter, some of the most important problems identified in this book shall be summarized: Concrete examples of past transformations and transitions have shown

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that envisioned changes often take a turn which is very different from the original objectives of those who were striving for these changes and sometimes pass a zig-zag course (see Sects. 7.1.2, 7.1.3, and 7.1.4) until occasionally arriving at the desired result by indirect means. Successful transformation attempts in favor of democratic developments sometimes fail as a consequence of foreign interference as it had happened, for example, after Prussia's interference in the French revolution which led to its radicalization. Similar considerations go for the secret influence of power networks on resistance movements, e.g., the secret interference of the Vatican into the Eastern European resistance movement in the early 1980s which has accelerated the breakdown of political systems with a speed which made a natural transition impossible, so that all people in the former communist bloc including many Eastern Germans felt caught off guard and had too little time to adapt to the political, social, and economic consequences of the fall of the safety curtain. Furthermore, it is a well-known fact that this rapid change opened the floodgates for the evil machinations of White-Collar criminals. Similarly, the interference of foreign powers in the Arabian spring movements who apparently hijacked the revolutionary movements in favor of their own agenda seems to have worsened the situation in some countries as shown in Chap. 5.

So, as a general rule of thumb, countries should be left alone in the implementation of their transformations and transitions, unless the people are expressly seeking foreign assistance as it happened, for example, in the case of the American revolution (see Chaps. 3 and 7).

It has also become evident that, although all classes contributed to the success of transformations, those who initiated and steered these transformations usually came from more privileged classes of society. Obviously, those steering the course in the American Revolution and in the French Revolution were mostly intellectuals coming from nobility as well as from the educated bourgeoisie. Similarly, most of the revolutionaries who took a leading role in the revolution of 1848 have been academics (including the "Parliament of Professors" in the *Paulskirche*) who, although not reaching their goal immediately, designed a viable paradigm which would later on be put into practice by Bismarck who had the military and political power to implement this concept. Actually, Bismarck did not only establish a constitution according to the *Paulskirche* paradigm, but additionally managed to create peace in inner affairs by sustainable social reforms by which he took the wind out of the sails of political fanatics. The high quality of Bismarck's social laws is additionally proven by the fact that these laws still exist today (in a slightly modified form, however, as they had to be adapted to the requirements of the demographic development and the globalization). This shows that reasonable social reforms, if they take intelligent people's ideas into consideration, basically tend to be more sustainable than theoretically flawed ideologies, such as communism which might easily be hijacked by people in favor of selfish agendas.

Let us once again highlight a topic which was shortly addressed in Chap. 7 and concerns the financial string-pullers behind the "communist" Bolshevik revolution: In the New York Journal American February 3, 1949 issue, Jacob Schiff's grandson

John was quoted as claiming that his grandfather had provided \$ 20 mio for the victory of communism in Russia (Griffin 2002).

Nowadays, the true power players are even more invisible than in the past due to hidden economic strategies. Even some politicians speak out about the general problem of a lack of democratic participation nowadays as, for example, the Bavarian Minister President Horst Seehofer in a TV-emission of the German state channel ARD where he stated on May 20, 2010: “Those who decide are not elected and those who are elected have nothing to decide” (Seehofer 2010). This statement sums the current situation up quite well and is in accordance with Benjamin Disraeli’s statement: “The World is governed by very different personages from what is imagined by those who are not behind the scenes.” (Benjamin Disraeli 1844, see Chap. 7).

In the environmental sector, there are many grievances which have been highlighted in details in Chaps. 10, 11, and 12. The Chaps. 13 and 14 have stated the challenges of the increasing urbanization in developing and threshold countries. From the bright side, Chaps. 11, 12, 13, and 14 have also shown that new markets can emerge out of these problems.

With view to the fact that the development of transformations is often unforeseeable, it seems reasonable to abstain from a prediction of a concrete timeframe for an implementation of the New Sustainability Paradigm, although humankind should do its best to find reasonable strategies to realize the New Sustainable Paradigm as soon as possible.

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# Chapter 16

## Implementation of the New Sustainability Paradigm: List of Recommendations

**Odile Schwarz-Herion**

**Abstract** Taking reference to a famous quote of Montesquieu concerning the abuse of power, strategies are developed to restrict the abuse of modern power networks. Starting from a three-step approach to inform oneself and others about current developments in politics, the economy, and the natural environment on local, national, and global level, promising proactive strategies, such as the creation of new NGOs, public Round Table Groups, and Think Tanks which are independent from the current power players are recommended. Finally, a list of topics which should be put on the agendas of these Round Table Groups and NGOs along with strategies to promote these ideas to open-minded mass media players and thus to the general public as well as to politicians and businesspeople of integrity is provided. The strategies also include some warnings regarding potential traps which should be avoided by those who want to help humankind to arrive at the New Sustainability Paradigm in a peaceful and efficient way.

**Keywords** Montesquieu • Three-step approach • Strategies • Independent NGOs • Round Table Groups • Priority Topics • Symmetric disarmament • Politicians of integrity

*C'est une expérience éternelle que tout homme qui a du pouvoir est porté à en abuser.*  
(Charles de Secondat, Baron de Montesquieu. *De l'esprit des lois*)

According to Montesquieu's statement quoted above, it corresponds to an eternal experience that every person holding power is tempted to abuse it as Montesquieu set forth in his book "L'Esprit des Lois" (The Spirit of the Laws) which was first published in Geneva back in 1748. This insight should motivate civil society to take

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suitable counter-measures against power abuse. In principle, Montesquieu's statement which had the absolutist monarch at the top of the state in mind (Montesquieu 2011) has been put into practice in democratic states by the formal separation of powers.

Nevertheless, as the examples from past and recent political transitions in the first part of the book have shown, abuse of power occurs in various forms. Power can be exercised not only by political leaders, but also by private individuals and entities which have actual power in terms of money, innovative arms, networks, or superior knowledge and use this actual power to steer the state from behind the scenes.

The NSP can only be implemented if all players including civil society take appropriate measures to deal with obvious cases of abuse of power, since it can lead to serious human right violations, might harm diversity of groups, nations, and cultures by imperialist ambitions, and might additionally create unrest, leading to long-lasting periods of armed conflicts including revolutions, civil wars, and transnational wars. The basic conditions for the implementation of the NSP can only be fulfilled if abuse of power is restricted in an efficient way as stipulated by Montesquieu.

At first glance, civil society might seem powerless, but actually, if organized in newly established transnational NGOs and Round Table Groups which are independent from the current power players, humankind might finally be able to move something. The implementation of the New Sustainability Paradigm will only be possible, if an enlightened civil society, consisting of well-educated and emotionally mature individuals and well-organized entities, will manage to confine abuse of power by well-reflected, peaceful, and efficient counter-strategies against current grievances. These efforts should ideally be accompanied and supported by political leaders and authorities of high integrity on the local, national, and global level.

First steps of implementing the NSP require figuring out the causes of current problems and major grievances. Some of them have been addressed in this book, others might be detected by checking out some of the references indicated in this book. Beyond that, it is necessary to get updated on all major issues on a daily base, to form an opinion of your own, to strive for networking, and to enter strategic alliances. Basically, this will require three major steps:

1. Inform yourself about the current state of play in politics, the economy, in environmental matters, and regarding recent technological trends. This includes not only pursuing the news in the mass media on a regular base, but also seeking complementary information on the internet, checking the credibility of the information, and detecting potential flaws and logical gaps in mass media reports. In case that you have the possibility to do so, investigate suspicious cases personally.
2. Once you have figured out certain problems and possible solutions, share this knowledge with others in your personal environment, first with family members, friends, colleagues, and neighbors, and later on with people on a global base, e.g., via E-Mail or public internet blogs to discuss controversial issues and possible solving approaches. This includes also exposing crimes in case of irrefutable

evidence, above all bioterrorism, eco-terrorism, electoral fraud, large-scale fraud schemes leading to state bankruptcy, as well as child trafficking and forced labor.

3. Try to get people personally involved in problem solving approaches and the development of concrete strategies. This might be done by entering strategic alliances with persons who are able to contribute ideas, know-how, or networks and by organizing round tables in the framework of individual possibilities. Use your networks and financial means to establish NGOs, Round Table Groups, and Think Tanks on a local, national, and/or global base. Round table sessions and cooperation in think tanks might also allow developing counter-measures against insidious mind-control techniques, such as the Delphi-Technique (see Chap. 9).

Generally, have the following principles and guidelines in mind:

- Try to get people from both genders and from as many different disciplines, nations, cultures, ethnicities, religions, and world views as possible for your NGOs, Round Table Groups, and Think Tanks to reproduce the pluralism desirable for the NSP in miniature. This might allow for the discussion and elaboration of strategies by making use of interdisciplinary skills and cross-cultural fertilization, possibly finding the right balance between, e.g., Western European and American drive for innovation, Eastern European persistence, and Asian wisdom to preserve calmness even in complicated situations and to think in long-term strategies.
- Be aware that nationalism and globalism are not mutually exclusive. Since diversity and pluralism are important preconditions for the NSP, national and cultural identities and heritage should be preserved to allow for a fertile cultural exchange between different nations and cultures across the globe and to facilitate synergy effects and cross-cultural enrichment.
- Take into consideration that the global level (e.g., the UN) thinks about Sustainable Development, whereas action has to take place on the local level, ideally by grass-root movements which should be taken into account by practicing the so-called “Vertical Global Integration”: “Think globally, act locally” (Meyer 2007).
- Keep in mind that with view to the NSP any kind of collective accusations against whole states or nations for (historical) crimes committed by the national or the international establishment in the name of the people should be avoided at any price. Blaming the people for the crimes of the political or economic establishment, blaming descendants for the crimes of their forefathers, as well as collective accusations against certain nations or other collective entities are not only narrow-minded and based on an archaic mentality, but also unjust and irresponsible because such accusations favor biases and involve the danger of triggering further wars.
- Identify and expose the real troublemakers and hypocrites behind aggressively guided discussions about humanity and Sustainable Development. This includes those scientists, scholars, media players, politicians, functionaries, and self-nominated philanthropists who try to play people from different nations, ethnicities, religions, and even humans and nature off against each other by arguing that living, breathing, working, playing, and industrial activities were allegedly *per*

*se* harmful for the natural environment, while denying or playing down the risks of hostile climate engineering and bioterrorism. Remember that both the economy and environmental protection should work for and not against humans in the NSP scenario (see Chap. 1).

- Never involve persons with extremist views in your NGOs and Round Table Groups – neither left-wing activists nor right-wing activists. Extremists tend to radicalize movements which might not only get you in trouble but might also hamper objective discussion and the development of reasonable strategies.
- Be cautioned that fascists might occasionally hide behind so-called anti-fascist movements. Judge people according to their actions, statements, and perceptible mentality – not merely by their affiliation to certain movements, political directions, or religions.
- Be warned that terrorists can hide behind thousand masks.
- Join existing NGOs and Round Table Groups only after having done a thorough credibility and integrity check on those running these NGOs.
- Try to seek the dialogue with open-minded politicians on the local, national, and global level and make obvious grievances as public as possible – in public Round Table sessions, by public speeches, by scientific publications, and on the internet.
- Try to get some honest mass media players to report on those issues which are actually of global importance and eventually to broadcast Round Table sessions which you organize.
- Be skeptical if politicians discuss expropriation of so-called “rich” people. They might target every citizen who still has some private property left and might take communism as intermediary stage to do an even more unequal distribution after the dissolution of the communist system.
- Be alerted that expropriations should be avoided in a democratic society at any price. Even in the case of seemingly useful projects, expropriations should only be the ultima ratio. Furthermore, the state should never get indebted for any kind of mega-projects which almost regularly affect all pillars of Sustainability in a negative way (Perkins 2005).
- Be aware that it would require legal regulation on a global base to make contracts involving the risk of state debt invalid “*ex tunc*” – in the kind of cases which have been described by Perkins (2005).
- Work out strategies after each Round Table session and try to get them across to the general public and to open-minded politicians.

Make sure that at least the following topics are treated repeatedly in Round Table Sessions:

- Finding the right balance between subsidiarity (e.g., national Sovereignty) and globalization
- Water and Food Security
- Reasons why basic services for the public (water, food, energy, etc.) should stay a public task
- The risks of climate engineering and the need for binding global regulations to prohibit risky or even hostile use of climate engineering and other environmental



modification technologies along with legal and administrative solutions in case of non-compliance

- Legal regulations to deal with bioterrorism
- Toxic emissions
- Protection of biodiversity
- Libor fraud, its consequences, and counter-strategies, for instance, by discussing the re-enactment of the Glass-Steagall Act from 1933 which had prevented commercial banks from trading securities with their clients' deposits but had been repealed in 1999
- Legal strategies to avoid that existing state debt is externalized to citizens in form of taxes and/or cuts in the state budget for public services
- The risks of abuse of power and lobbyism in Public-Private Partnerships
- Urgent need to abolish most kinds of immunity,<sup>1</sup> above all Sovereign immunity, state immunity, and diplomatic immunity as a historical relic from ancient times which is still facilitating all sorts of crime committed by elitist criminals and their allies
- The need for a transparent state in every respect
- Gradually replacing arms by efficient de-escalation strategies
- The need for symmetric disarmament between countries, i.e., countries can only require disarmament of other countries in the form of mutual requirements and mutual control.
- Strategies to avoid that people leave their sunny, spacious, and basically ecologically prosperous home countries to flee into ecologically scarce, spatially limited, and equally indebted seemingly rich countries and sometimes even risk their life to get there, whereas some warmongers (e.g., reactionary crusaders) and professional crooks (e.g., Economic Hit Men) use their flight to deprive them of their ground and natural resources in their home countries
- Basic requirements for the content and the correct implementation of plebiscites

Scientists and scholars who have a high level of credibility due to their intellectual authority in a civilized society have a high degree of moral responsibility. Their responsibility encompasses at least four important aspects of scientific work: (1) Scientific honesty and (2) Preventive measures to avoid abuse of their scientific insights for criminal or military purposes with potentially disastrous consequences for humankind on a global base. (3) The courage to publish rarely covered issues (4) Setting the right priorities in research and publications.

Regarding the formation of new regions as suggested by Raskin (2006), this should not be done top-down without asking the people as it had been done, e.g., after the Peace of Westphalia or in the New European Order at the Congress of Vienna, but should be based on plebiscites. Plebiscites must be based on the free will of the voters instead of being subject to manipulation or blackmail (e.g., by the economically flawed argument of sunk costs as in the negative example cited under Sect.14.5). Bigger entities should not be formed at any price; in some cases,

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<sup>1</sup>Except from Amnesty and Witness Immunity.

subsidiarity might make sense. If Venice wants to become independent, for example, this should be respected.

On the other hand, the formation of larger entities might make sense in the case of bioregions. Actually, there are already visible trends towards forming regions as transnational entities consisting of similar cultural, industrial, and geographical conditions, sharing, for example, bus, rail, and air traffic networks, facilitating commuting of workers, and providing a common energy provision. The creation of common laws would only be the next step to stabilize these regions as political entities in the future. Typical examples for existing transnational regions are, for instance, the “Upper Rhine Region” encompassing parts of Switzerland, France, and Germany or the region “Riviera/Côte d’Azur”.

Actually, humans should always be aware that nature and naturally occurring systems are more sophisticated than any artificial invention by humankind. Once the biosphere gets out of balance, it is extremely difficult, if not impossible, to restore it into its original form. Humankind should use its intelligence to preserve nature, not to exploit and manipulate it without any essential need. Actually, this is only possible if people have the possibility to control the resources and are not indebted to private power players who create state liabilities by persuading politicians to do unreasonable projects under the pretext of profits or even under the pretext of environmental protection (Perkins 2005; Koire 2011).

Furthermore, banking cartels and other influential economic players should not abuse their power to manipulate the economy, e.g., by rigging the Libor rate (see Sects. 5.3 and 7.1.9), and certain billionaires who got involved into scandals, such as the food-for-oil-scandal, should refrain from criticizing the middle class for affording a touch of luxury (see above Chap. 2). After all, the majority of the middle-class consists of educated and hard-working people, thus forming part of the working population and contributing to the quality of life for everyone by their intellectual and physical work.

Actually, in a modern meritocracy, those privileged members of the non-working population who are able to reap profits by making only money and other people work for them should show some due respect to the working population for their active contribution to the general well-being and should acknowledge the fact that the working population is more efficient if their human need for a certain quality of life is respected. Furthermore, every intelligent person should be able to recognize that unnecessary civil wars which might emerge if the gap between the rich and the poor widens even further and if the abuse of power gets out of hand should be avoided in favor of all three pillars of Sustainability. A key element of a movement towards sustainable global democracy is mutual respect between persons from different ethnicities, cultures, religions, world views, and social backgrounds. If these facts are taken into consideration, it will finally lead to a win-win situation for everyone.

The egoism and the abuse of power committed by the unholy networks consisting of some presumptuous global elitists, some corrupt politicians, and internationally connected heavily armed religious power networks formed by hypocrite and radicalized crusaders can only be successfully confined by solidarity among the

members of a well-informed and enlightened global civil society along with the support of responsible and honest scholars and scientists, independent, objective and sincere media people, politicians of high integrity, and genuine clerics from all kinds of religions.

Eisenhower was already aware of the threats posed by powerful networks and by state debt for natural and economic resources as well as for democracy – scenarios, which were later on witnessed by Perkins (see Chap. 7).

Therefore, Eisenhower's statement in his Farewell Speech back in 1961 is nowadays more valid and more topical than ever before and might serve as a sound base for the implementation of sustainable global democracy:

Only an alert and knowledgeable citizenry can compel the power meshing of the huge industrial and military machinery of defense with our peaceful methods and goals, so that security and liberty may prosper together ... It is the task of statesmanship to mold, to balance, and to integrate these and other forces, new and old, within the principles of our democratic system – ever aiming towards the supreme goals of our free society... we – you and I, and our government – must avoid the impulse to live only for today, plundering, for our own ease and convenience, the precious resources of tomorrow ... We want democracy to survive for all generations to come, not to become the insolvent phantom of tomorrow. (Eisenhower Farewell Speech 1961).

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