From Individual Wellbeing
to Regional Priorities
From Individual Wellbeing to Regional Priorities: Concepts and Measures to Assist Policy Makers

By

Silva Larson
TO MY SAILOR

If you observe a really happy person you will find him sailing a boat, writing a book, educating his son, growing double dahlias in her garden, or looking for dinosaur eggs in the Gobi desert. She will not be searching for happiness as if it were a collar button that has rolled under the radiator.

—W. Beran Wolfe, adapted
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CHAPTER ONE
INTRODUCTION

The concept of sustainable development encourages policy makers to promote development that will sustain natural environments for future generations’ welfare, while ensuring that the living standards of those in the present are maintained (WCED, 1987). The concept links ecological protection, economic development and human welfare. Although the concept has been equally hailed and criticised since its origin, sustainable development delivers four key notions:

- It entrenches ecological and societal considerations into economic policy making;
- It explicitly references “needs”, and therefore does not simply argue for the creation of wealth or the conservation of resources, but also for fair distribution;
- In addition to intra-generational equity, it also explicitly refers to intergenerational equity;
- It stresses the concept of “development”, rather than “growth”, acknowledging that economic welfare is about more than just the financial aspects.

The United Nations Rio Declaration (United Nations, 1992) brought further popularisation of the concept of sustainable development. Most relevant here is that Chapter 8 of the Agenda 21 (Quarrie, 1992) calls on governments to modify and strengthen planning and management procedures so as to facilitate the integrated consideration of social, economic and natural environment issues. This goal of “sustainability” sometimes presupposes a new direction for the development of society, which includes consequences for spatial patterns and consumption habits. As the development of society is a highly complex and, to a large extent, unpredictable process, the long-term effects of any policy measure are only partly foreseeable (Abaza et al, 2004). Hence the need for consistent, transparent methods of attempting to predict the impacts of policy measures.
However, before we can assess the impacts or attempt to evaluate the success of the policy, we need to determine the scope of assessment. That is, we need to be able to answer the following question: “Impacts on what?” The concept of sustainable development explicitly refers to the “needs” and satisfaction of needs of people. Thus, in order to promote sustainability, policy and decision makers need to be able to identify what “needs” are, and how these needs are distributed in society. In other words, they need to be able to answer questions such as: “What matters to people?” and “How satisfied are they with things that matter to them at the moment?” Understanding current needs and current levels of satisfaction would benefit policy assessment as it would allow mapping of the envisaged impacts of policy (negative and positive ones) against their importance to people, thus providing information about the potential of different policy options to increase or decrease human welfare.

The concept of “human wellbeing” has emerged in the literature and in practice as a concept with the potential to provide answers to such questions. As a result, human wellbeing is becoming an increasingly important aspect of investigations in planning and management (Hagerty et al, 2001; Hassan et al, 2005; Veenhoven, 2002). Evaluations of the urban quality of life and wellbeing are well documented (for example, see Ge and Hokao, 2006; Giannias, 1998; Grayson and Young, 1994; Pacione, 2003; vanKamp et al, 2003), representing either general approaches or focusing on particular domains of the urban quality of life such as health, social cohesion, safety or leisure (for example, Bell, 2006; Berger-Schmitt, 2002; Lloyd and Auld, 2002). In the rural and semi-rural context, interest in human wellbeing has been largely derived from the natural resource management perspectives, in particular through popularisation of the Millennium Ecosystem Assessment methodologies (Hassan et al, 2005; Millennium Ecosystem Assessment, 2003). Consequently, improvements in human wellbeing are increasingly viewed as being dependent on improving ecosystem management and ensuring conservation and sustainable use of resources (Hassan et al, 2005). Evidently, human wellbeing approaches that consider the paradigm of sustainable development warrant further research.

Furthermore, natural resource management agencies, regional planners and other decision makers are facing increased pressure to incorporate the social dimensions of resource management into landscape planning (Larson, 2009). However, studies set in rural regions tend to focus on particular groups, such as landholders (Bohnet and Smith, 2007; Broderick, 2005) or indigenous populations (Larson et al, 2006; Richmond et al, 2000). Little appears to be known about subjective preferences,
individual contributors and the levels of satisfaction with human wellbeing in the general population that resides in rural areas of the developed world.

Thus, the primary aim of this book is to improve our understanding of what people value and find most important to their wellbeing, at the regional scale.

On the one hand, the sustainability literature and the resulting national institutional arrangements explicitly reference “needs” and the satisfaction of “the needs” of the people; on the other hand, governments in developed countries are increasingly interested in development and promotion of rural regions. Yet, we have very little understanding of what the needs and aspirations of the people currently living in such regions are, and hence how these regions can be best developed and the welfare of their residents best enhanced. In this book, I explore two case studies set in rural north Queensland on the east coast of Australia, aiming at gaining a better understanding of the needs of the rural residents. The concept of wellbeing was used to collect information on needs and priorities, that is, important wellbeing contributors, as perceived by those people.

However, policy and decision makers do not only need to be familiar with what the needs are, but also with how they are distributed in society. Hence, I also examined various social, economic and sense of place attributes of residents, with the aim of investigating if such attributes potentially determine stakeholders’ responses.

An approach that takes into account both what people value most and how satisfied they are with the current state of affairs would assist decision makers with identifying perceived regional priorities. In this book I propose and describe one such approach, that of using a quantitative composite value that combines both types of information, and demonstrate, using two shires in the Great Barrier Reef region of Australia as examples, how this can be done.

An overview of the large body of literature relevant to this research is provided in the next chapter. Key ideas from areas that provide an interdisciplinary integration of economic, social and ecosystem concerns, as well as an integrated concept of human wellbeing, are discussed first. The literature review also presents a summary of current developments in Strategic Environmental Assessment (SEA) processes, legislation and literature and introduces the concept of Corporate Social Responsibility (CSR). Further, an overview of the assessment methods in use is also incorporated in Chapter Two.

Several research questions emerged from the literature reviewed in Chapter Two and I attempted to answer the most pertinent ones in the rest of the book. But first, a brief introduction to and a comparison of the two
study areas is presented in Chapter Three. Methodological approaches to the primary data collection are also discussed in this chapter. A guide to the design of the questionnaire is presented first, followed by the details of pilot testing and full survey stage of the data collection.

A better understanding of what contributes to wellbeing, and by how much, is needed first, I argue. Thus the first aim of the book, addressed in Chapter Four, was to better understand the needs of the residents in regional Australia. In this first part of the enquiry I aimed at defining and measuring the most important contributors to individual and regional wellbeing, exploring three main sub-questions: What factors (contributors to wellbeing) are perceived as being the most important to individual wellbeing? Are the contributors to wellbeing shared by individuals within and across different regions? and, Is choice of contributors to wellbeing determined by the characteristics of the person, that is, can wellbeing choices be explained by socio-economic, demographic or sense of place characteristics of the person? Results of these investigations are presented in Chapter Four of the book. The chapter starts with the data analysis methods, and then presents results of the investigation into wellbeing contributors at both individual and regional level. Explorations of the determinants of the wellbeing choices are also presented. The chapter closes with a discussion of the findings and conclusions.

In addition to the question of “what matters to people?” discussed in Chapter Four, in Chapter Five I explored current levels of satisfaction with important wellbeing contributors: How satisfied are people with the various wellbeing contributors at the moment? How similar is the satisfaction of residents in regions to the national scores? Are the satisfaction levels shared by individuals within and across regions? To answer such questions, I compared reported satisfaction levels across the case studies, and to Australian national-level studies, with the aim of better understanding regionally specific issues. I also tested if satisfaction scores could be explained by socio-economic, demographic or sense of place characteristics of the respondents. Thus, Chapter Five starts with the presentation of the data analysis methods, followed by results at the regional level. The results are compared to the national satisfaction scores, followed by discussion and conclusion sections.

There is a clear need for an approach that would assist decision makers with identifying regional priorities, as perceived by residents. I was also convinced that a more complex evaluation and analysis is needed in order to improve our understanding of both what people value most and how satisfied they are at the moment. Levels of satisfaction with wellbeing factors provide useful insights in their own right, but they do not provide
an understanding of how important each of these factors is to the respondents overall. For example, at the policy-making level, a factor recorded as being of concern to a large majority of residents is likely to receive more attention than a factor that concerns only a few residents. Therefore, relevance of satisfaction levels to policy making could be improved by taking into account the recorded importance of each factor. In Chapter Six I thus set out to investigate the relationship between satisfaction scores and the relative importance (weights) assigned to wellbeing factors: Can we integrate satisfaction and importance into one metric? More specifically, I was aiming at answering the following question: Can this metric help identify wellbeing factors that might warrant attention from decision and policy makers—i.e. can it identify regional priorities or help develop an “action list”? Thus, in Chapter Six, I explored the approaches that would create a better understanding of wellbeing contributors and the satisfaction levels, to assist decision and policy making. Again, a summary of data analysis methods is followed by the explorations of the satisfaction and importance on an individual and regional level. A composite metric of both measures, the Index of Dissatisfaction (IDS), is then proposed and discussed.

In closing, Chapter Seven discusses key contributions of this book, as well as areas of interest for further research.
CHAPTER TWO

OVERVIEW OF THE LITERATURE

The structure of this chapter is organised in line with Figure 2-1. The first two sections of the chapter present a review of the literature focusing on concepts and theories relevant to the integration of societal, ecological and economic concerns, and in particular relevant economic theories. First section concentrates on the literature integrating just two parts of the system: nature and society, nature and economy, and society and economy, and is intended to serve as a preliminary introduction to the subsequent, core, parts of the review. Key concepts and approaches to the integration of all three spheres, that is society, nature and economy (shaded area in Fig. 2-1) are discussed in the second section. A brief overview of two processes (based on integrated concepts), that have been developed to inform contemporary government and industry decision making, namely, the Strategic Environmental Assessment process and Corporate Social Responsibility, are also presented. The chapter closes with a summary of the key findings of the literature review.

![Figure 2-1]

Fig. 2-1 Integrative approaches reviewed in this book. Integration of parts of the system (nature and society, nature and economy, and society and economy); and integration of all three spheres, that is, society, nature and economy (shaded area)

Before continuing, however, it is important to clarify the terminology, particularly given the interdisciplinary nature of the investigation. The term “environment” tends to be interpreted differently by different researchers and policy makers, depending on their cultural and disciplinary
backgrounds, and is often referred to in the context of the natural environment only. Just how broad the scope is often depends on the definition given to the term “environment” in national legislation and policies. In some countries and international organisations the definition is broad, incorporating biophysical and socio-cultural dimensions, such as health (Taylor et al, 2004). In other jurisdictions the definition is more restricted, with the emphasis on biophysical aspects. In this book the term “environment” is used in broad sense, to refer to the social, economic and natural environment.

The term “region” can be defined as an area that is a subset of the nation, which might be, but is not necessarily, an administrative unit (Craig Davies, 1990). Most approaches to defining and determining regions maintain that regions should be contiguous; and homogenous within, in terms of social, economic and bio-geographical factors (Howard, 2003). Thus, regions do not always have commonly accepted boundaries. They can be defined by formal boundaries (as in the case of state or local governments) or characterised by similarities in economic and social factors, natural environments and landscapes, or by other connections that distinguish them from neighbouring areas. Regional geographers and economists identify three different approaches to defining a region: uniform or homogenous regions (areas identified by uniform characteristics), nodal or functional regions (interactions or functional linkages between different components within a space), and planning regions (coherence and unity of economic decision making, designated by a particular authority) (Coombs, 2001).

There is a substantive body of literature discussing the issues related to the definition of a “region”. But it is not the intention of this book to contribute to that literature. Rather it is to improve our understanding of what people value and find most important to their wellbeing at a regional scale. Given this, the most appropriate definition of a “region” for use in this study is that which is most closely aligned with the definition of “planning regions”: coherence and unity of economic decision making, designated by a particular authority. The “regions” explored in this book thus refer to statistical local areas or shire council boundaries. As unfortunate—and scientifically questionable—as this definition might be from a sociological perspective, development of policies in most countries is bounded by administrative units, not social network catchments or biophysical boundaries. A notable exception to this rule is the use of river catchments as a biophysical boundary for the catchment-region, and a use of river catchment would also be a boundary suitable for the type of research explored in this book.
Bi-integrative approaches

Nature and society

The separation of spheres of “nature” and “society” has a long history in mainstream Western science (Irwin, 2001). Yet it appears that complexity and controversy surrounding some contemporary environmental issues, such as climate change, has provided a renewed stimulus for reintegration in the West. As Goldblatt (1996, p. 5) argues:

“The classical social theorists were historically late enough to witness not simply the escape of the modern societies from their organic constraints, but also their dynamic capacity to transform natural worlds... yet they were too early to register fully the implications of those transformations. Far from transcending ecological constraints, modern societies were rapidly acquiring new ones of their own making.”

The strong link between society and nature, however, has not been lost in many traditional societies. Contemporary integrative concepts, fundamentally similar to the emerging Western paradigm of sustainable development, have been described by indigenous peoples in Hawaii (McGregor et al, 2003), western Africa (Fairhead and Leach, 1996) and Australia (Larson et al, 2006).

Catton and Dunlap (1978) presented one of the first major calls for the new social paradigm in the West, away from “human exceptionalism” towards an “ecological paradigm”. The ecological paradigm presents human beings as part of a larger ecosystem. It acknowledges that not only are human activities causing deterioration of the quality of the natural environment, but also that deterioration of nature has, in turn, a negative impact on people. Furthermore, Clark (1991) argues that a link between nature and human community should be a central focus of the society. She proposes that top down management systems might be necessary for global environmental issues and management, with necessary centralised institutions that allow short-term responses to changes. But in the long run, she argues, effective global management can only emerge from universally responsible management of local systems, not from centralised management. She maintains that local people have the most knowledge of the local system and have the most motivation to maintain local sustainability.

The public continues to demand ever greater environmental services, amenities, food safety, and other public goods from rural areas. Increasing range of use and non-use values the public desires from natural and rural
areas, requires new evaluative methodologies. Even if we did know what people want, argues McCarthy (2005), much work is needed to show that particular policies or payments actually produce the desired outcomes.

**Nature and economy**

The relationship between nature and the economy has significantly changed in the last few centuries and appears to have made a full cycle (Common and Stagl, 2005). Nature played a very strong role in classical economics. Particular attention was paid to the land suitable for agriculture, which was viewed as being of finite supply, and subsequent perceived future shortage of this specific natural resource played an important role in shaping the thinking of influential economists of the late eighteenth and early nineteenth centuries. Largely due to Malthus’ (1766–1843) predictions of eminent collapse of the system, once population numbers exceed the limits of land, the discipline of economics was labelled “the dismal science”. However, one thing which economists of that time, in particular Malthus, did not take into account was the rise and the consequent “conquest” of nature by technology. Technological advances have not only extended the productivity of the land, but have brought about a new phenomenon that allowed for unprecedented economic growth: industrialisation. Industrialisation has brought with it new issues and new challenges for economics, but most importantly for this discussion, shifted the focus of enquiry from the natural environment and natural capital to the “technological” environment and financial, human and industrial capital.

As a result of technological and industrial advancements, not only the collapse of the system as envisaged by Malthus did not occur by the mid-twentieth century, but the standards of living were improving across the globe at an unprecedented rate. The social or natural components of the environment were not given a substantive role in economic theory of that time. The main focus of many economic policies was to promote efficiency and long-term growth, and technology was seen as the main driver of that growth.

However, by the 1970s, some negative impacts of economic growth on the natural environment started to gain a wider consideration in economic discussions. The sub-disciplines of environmental economics, resource economics and ecological economics emerged to fill distinct niches, partly as a response to limited connections between the natural environment and economics of early- to mid-twentieth century (Common and Stagl, 2005). Although sub-disciplinary borders blur, resource economists chiefly view
the natural environment as a provider of goods and services, while environmental economists are mainly concerned with the use of nature as a sink: that is, they often focus on pollution issues (Tietenberg, 2000). In contrast, ecological economists are concerned with the overall relationship between nature and economy, and thus the ideas of sustainability and sustainable development play a major role in their thinking (Common and Stagl, 2005). Much of the recent literature that integrates nature and economy—and their relations to policy—thus deals with pollution, ecological degradation, and methods of attempting to prevent and/or mitigate those problems.

The difference in paradigms has potentially profound impacts on the way in which the relationship between nature and economy, and thus sustainability, is understood. The “dominant paradigm”, our predetermined point of viewing certain phenomenon, determines the space within which our future analysis will take place (our “vision”). Daly and Farley (2004), based on the writing of Kuhn and Schumpeter, argue that whatever is omitted from the paradigm can not be recaptured and thus addressed in subsequent analyses that are based on that paradigm. Correcting of the “vision” therefore requires a new paradigm, not further analysis of the old (Daly and Farley, 2004). This point is very important for the future of sustainability thought, as the foundations and the building blocks of different economic “visions” differ on key aspects. As Daly wrote in the introduction to his book *Beyond Growth* in 1996:

“The power of the concept of sustainable development is that it both reflects and evokes a latent shift in our vision of how economic activities of human beings are related to the natural world—an ecosystem which is finite, non-growing and materially closed. The demands of these activities on the containing ecosystem for regeneration of raw material “inputs” and the absorption of waste “outputs” must, I will argue, be kept at ecologically sustainable levels as a condition of sustainable development. This change in vision involves replacing the economic norm of quantitative expansion (growth) with that of qualitative improvement (development) as the path of future progress.” (p. 1).

Figure 2-2 illustrates the relationship between the economy and natural ecosystems as a simplified perception. Some economists acknowledge the limitations to growth imposed by the natural system in which the economy operates, and thus envisage a “steady-state” economy constrained by its external environment (Fig. 2-2, A). For others, there is no reason for limitations in growth (Fig. 2-2, B); the economy can grow forever, as technology is assumed to be capable of providing substitutes for any limits
imposed by the ecosystem (Common and Stagl, 2005; Daly and Farley, 2004).

![Diagram of Ecosystem and Economy]

Fig. 2-2 Different views of the relationship between the ecosystem and the economy: (a) economy constrained by its external environment and (b) economy with no limitations in growth

Jacobs (1991) points out that the natural environment is sometimes seen as a set of goods and services, just like any other good or service. Consequently, an explanation for the overuse and abuse of the natural environment (“ecosystem services”) is that environmental goods and services are usually available for free. Therefore, if one starts to charge for the use of environmental goods and services, users will have an incentive to minimise their use or to use other goods in stead. But if natural goods and services are not substitutable for other types of goods and services, then simply placing a price on the environment will not solve the problem of overuse. Model (a) in Figure 2-2 above might therefore be a better representation of our state of affairs.

**Economy and society**

Like the relationship between nature and the economic system, so too is the relationship between social and economic systems viewed differently by different economic schools of thought. For the classical economists of the late eighteenth and early nineteenth centuries, the social environment played a central role. The idea of a “stationary state” of the economy was viewed by some economists of the time as a natural point of maturation of an economic system. Mill (1806–1873) argued that a stationary state of economic development does not imply a stationary state of human improvement. People will have more time for improving the “art of living” once they get beyond the “art of getting on”, he argued.

Daly (1996) notes that such ideas would, in today’s world, be labelled
as “sustainable development”. But what improvements in living conditions would the “art of living” include? Many sets of indicators of such improvement have been proposed over the years, and will be discussed in more detail later. But it suffices to say here, even if we could agree on a single set of factors that positively contribute to “art of living”, we would still be faced with the need to make choices between those contributors. People have preferences as to what is important to them, and so societies also have preferences as to what is important to their welfare (Feldman, 1980). Just like individuals are constrained by their budgets, policy makers and administrators also operate within strict budgets, and policy makers are often faced with the difficult choice of trading off between two goods. A key question facing policy makers is therefore often: “If both A and B are good and desirable, is it ‘better’ to have A or B?” (for example, when is it better to build a hospital and when should one build a school?).

Majority voting has been proposed as an optimal way of making these types of social choices, and is the basis of democratic systems, the most accepted political model of our times. Much work on majority voting has concerned itself with identifying different requirements for the creation of efficient and equitable social choices: hence Pareto’s need for optimality and Rawls’ need for fairness. A comprehensive set of requirements was put forward by Arrow (1950, 1963), who defined a set of elements that would need to be fulfilled for a “social choice rule” to work. Specifically, Arrow proposes that the following conditions must be fulfilled if one wishes to create a “foolproof” set of rules for discovering and defining social preferences:

- completeness and transitivity;
- universality;
- Pareto consistency;
- non-dictatorship; and
- independence of irrelevant alternatives.

After running various theoretical possibilities through those requirements, Arrow concluded that there is actually no foolproof way to derive complete and transitive social preference relations in a society, as no collective choice can be made that satisfies all five requirements. This conclusion is called “Arrow’s impossibility theorem”. The clear “no” finding of Arrow’s theorem effectively negates any assertion that there are such things as “general will”, “social contract”, “social good” or even “people’s government”; that is, his impossibility theorem casts doubt over much of the twentieth century social thought (Feldman, 1980).
Several writers have since challenged the theorem, in particular the requirements for completeness, transitivity, and universality (see LeBreton and Weymark, 2002; or Feldman and Serrano, 2006 for details). However, one of the requirements that has received most criticism is that of independence. The independence rule states that if people’s feelings about a set of irrelevant alternatives change, but do not change about the pair of alternatives $x$ and $y$, then a collective choice rule must preserve the social ordering of $x$ and $y$. Two types of arguments are put forward against this rule. The first is that people evaluate entire sets of social options, not fully independent among themselves. Therefore, there is no pair of alternatives that can be evaluated separately from other options as no option can be fully “irrelevant”. The second criticism of this rule is that political and societal decisions are made at one given point in time, with whatever the given set of preferences are at that time. As Feldman (1980) argues, the real pragmatic question from a policy-maker’s perspective is:

“We have so many people with particular preferences that are given. How might we aggregate these given preferences? What might or might not happen when and if preferences change is not of particular interest to us, because we want to aggregate the fixed preferences of our given population now.” (p. 193).

Therefore, Feldman argues further, as long as we acknowledge that preferences are inter-linked and will indeed change over time, the question of aggregating individual preferences into a social preference is what really matters.

Several forms of majority voting exist, from the simple yes/no vote to ranking and weight voting. The majority of the economic valuation exercises, for example, are based on the principles of preference rankings (Feldman, 1980; Johansson, 1991; Page, 1991; Tietenberg, 2000). “Weight voting”, however, appears particularly useful for a better understanding of the voting preferences: in this method, each person reports his or her preference relation, that is, a certain weight is assigned to each rank. The weights given to a particular alternative by each person are then summed. Social preference relation is then derived from the sums of weights (this type of voting is also referred to as “de Borda voting” since de Borda was arguably the first to analyse this type of approach in his work published in 1781). The main criticism that de Borda voting receives is that the outcome, that is, the social preference relation, will depend on the actual magnitudes of the weights—a different set of weights will generally generate a different social preference relation. So, Feldman (1980) argues, if weights are assigned in an arbitrary manner, then the resulting social
preference relation will also be arbitrary.

Integration of society, nature and economy

Popularisation of the concept of sustainable development provided a renewed impetus for integration of societal, economic and ecological concerns (WCED, 1987). The United Nations Rio Declaration (United Nations, 1992) furthered the acceptance of sustainable development concepts, by calling on governments to modify and strengthen planning and management procedures so as to facilitate the integrated consideration of social, economic and natural environment issues.

At the individual (personal) level, several related concepts with the potential to encompass human conditions, the economy and nature have emerged, including the concepts of “standard-of-living”, “quality-of-life”, “happiness” and “wellbeing”. As Common and Stagl (2005) argue:

“To the extent that people’s needs and desires are more or less satisfied, we could expect them to feel more or less happy. Then, a proper and comprehensive indicator of economic performance is human happiness.” (p. 198).

Although concepts of “standard-of-living”, “quality-of-life”, “happiness” and “wellbeing” are very similar, they are not fully interchangeable. However, the delineations between the concepts often blur and, furthermore, they are sometimes defined differently by different researcher schools (Haybron, 2008). For example, “wellbeing” has been recently referred to as a subjective perception of one’s quality of life (Costanza et al, 2007). In addition, “happiness” is often referred to as an emotional state of the person and as such has been criticised for being too open to psychological trends of the person (Haybron, 2008).

These concepts will be further discussed in the next two sections, first at the individual and then at an aggregated societal level. Terminology used to refer to the concepts and methods in this literature overview is typically that of the original author.

At the individual level

The ethical and philosophical basis for economics, and thus for the relationship between economics and the social and ecological systems, is largely governed by utilitarianism (Common and Stagl, 2005). Utilitarianism is concerned with maximising benefits (pleasures) and minimising costs (pains). An action is thus viewed as “ethical” or
“correct” if it increases the pleasure or decreases the pain (Daly and Farley, 2004).

Economists of the nineteenth century were interested in devising a measure for the utility as a cardinal measure, that is, one which could be expressed on an absolute scale. However, with the development of the studies in consumer demands, and the influential writing of Robbins (1898–1984) claiming that any interpersonal utility comparison is unscientific, it was deemed that such a cardinal measure was not only unfeasible, but also unnecessary. Instead, ordinal analysis, which measures relative differences between goods or services, was adopted, and it is a change in the utility levels rather than absolute levels of utility that are of interest to modern economists (Layard, 2003; van Praag, 1991).

Another concept relevant to the study of utility is that of the law of diminishing marginal utility, which states that the more one has of something, the less satisfaction an additional unit of it provides. Lane (2000) uses marginal utility theory to discuss happiness at the personal level in the following steps:

1. people have multiple sources of happiness and satisfaction and will seek a variety of goods in their pursuit of happiness;
2. as any one good becomes relatively more abundant, the satisfaction people get from that good usually (but not universally) wanes in relation to the satisfaction they get from other goods;
3. as historical and social circumstances change, the power of various available goods (for example, income, companionship, work satisfaction) to yield satisfaction will change with changes in the supply of each good (as well as with tastes/“fashion”).

In this context, economic growth and income improvement it creates, although a very important parameter of welfare in developing and least developed countries, is no longer a major source of wellbeing in developed countries, Lane argues (2000). Like other goods, monetary income and the commodities it buys have declining marginal utility. In contrast, other goods, such as companionship for example, may have rising marginal utility in developed countries (Lane, 2000). Consequently, those striving to increase their total utility might substitute some monetary goods for non-monetary ones.

Furthermore, happiness appears to be correlated with relative, rather than absolute, levels of wealth and consumption. As Daly and Cobb put it, “having more is less important than having more than the ‘Joneses’” (1994, p. 415). Therefore, as increased consumption leads to an overall