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Evolution, Theories and Its Application to Various Economic Subjects

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Author's Preface

This book is completed with generous support from Professor Wit Wisadavet and Professor Emeritus Preecha Changkhwanyuen through the Centre for Buddhist Studies, Chulalongkorn University. The book was originally written in Thai basically for academics and graduate students and those who are curious and want to learn more about Buddhist Economics. There are 16 chapters in this book in the Thai version. Due to the limitation of the budget and the limitation of time on my part, it has been commonly agreed that chapters one, nine, ten, eleven, fifteen and sixteen are sufficient for international readers to understand the core concepts of Buddhist Economics and its related theories. They are the ones included in this volume.

As for chapters two - eight, those who are already familiar with the arguments of post-modernism, have a background in Western civilization, mainstream economics, Marxian Economics and humanistic economics do not need to be re-exposed to the contents. Chapters twelve, thirteen, and fourteen deal with how to apply Buddhist Economics to other economic subjects such as development economics, human resource economics, and economics of the environment and natural resources. These chapters are left for future translation to expand this volume expansion by the author through any supporting agency with sufficient interest. Nevertheless, all of the said chapters have been summarized at the end of chapter one. Some arguments in chapters two - eight have also been reviewed in chapters nine - eleven. In other words, a Western reader will not miss much by not having chapters two - eight in the book.

Apart from the persons I have mentioned above, this book would never see the light of day in this form without the expert assistance of Ms. Linda Nowakowski who has helped edit my English to be in the form it appears in this book. Without the compassion of Venerable Brahmagunaporn (P. A. Payutto) and his willingness to help, the book would never have achieved this depth of *Buddha Dhamma.* All of the remaining imperfections are due to the author's ignorance.

Respectfully yours,

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5 November 2008

Editor's Notes

What published in this volume is a translation from the Thai third edition (Amarin Press, 2004) of the book by the author himself. Since we have launched the journal some years ago, we hoped that besides the journal published regularly it may be appropriate to have the "*special issues*" which contain the long research monographs (or something like this) concerning the deep study of Buddhism, Buddhist doctrines, Buddhist philosophy, or Buddhist community and culture. Actually, we do this thing in the Thai version of the journal as we have published a number of long research monographs seen to stimulate and strike thoughtful considerations about Buddhism. However, in the case of the Thai version, we do not create the special issues for this job. They are published in the normal issues. Sometimes, one issue of this kind contains only one long research monograph, for example "*Buddhism and Human Cloning*" published recently. We hope that the special issues of the journal might be valuable in some way which differs from the normal ones.

Somparn Promta

Chapter 1
The Significance of Buddhist Economics

Meaning

Buddhist Economics is formed from the two words: "Buddhist" and "Economics." The word Buddhist refers to the teaching of Buddha or the *Buddha Dhamma*. The word *dhamma* means nature or the law of nature. *Buddha Dhamma* actually means the teaching of Buddha explaining nature or the law that exists in nature for human beings to understand so that human beings can live their lives consistent with nature. Buddhism uses the term *dukkha* to mean many things including conflict, contradiction, alienation, worry, anxiety, pain, or suffering. This *dukkha* is caused by a person living their life in conflict or in a way that is inconsistent with the law of nature.

The main reason for *dukkha* is the lack of understanding of everything in its own nature. It can be further explained, in part, that most of the time human beings use their own imagination or make presumptions based on their own subjective judgments. They normally wish every thing to be as they desire. This understanding is inconsistent with reality and creates the problem, as reality will never change to accommodate such wishful thoughts. Instead of trying to gain a clear understanding of how nature operates on its own, human beings continue to ignore the need to gain actual clearer understanding of the real nature and end up accumulating more ignorance within themselves with more and more contradictions between human thoughts and the real nature of things. Holding fast onto something that is not realistic is *micchaditthi* or wrong view that leads to conflict, contradiction or *dukkha*. This *dukkha* results because human beings do not try hard enough to understand everything in its own nature. While on the other hand, with such a clear understanding, everything can be explained. No conflict, contradiction or *dukkha* will remain.

Economics is a subject studying human behavior related to the consumption of goods and services for survival as well as beyond that level. When consumption is considered, naturally production and distribution must also be involved. All of these must also take into consideration the limited amount of resources at any specific time, including the limitation of time itself as a resource. This leads to a consideration of production efficiency. In fact, consumption efficiency should be considered as well.

Buddhist Economics says that we are looking at the application of the Buddha's teachings to economics. Although economics as a study of production, distribution and consumption of goods is of universal interest and value, economics as the world knows it today, is a subject developed in the West and rooted in western civilization. As we look at Buddhist Economics, the part of the *Buddha Dhamma* that we will be applying is the understanding of the real nature of human beings and the relationships between human beings and nature. This specific view point is vastly different than what has been developed in the West and what is taught in most academic institutions that are offering the subject of economics. This view will from now on be referred to as mainstream economics. The author has his opinion that economics has only partially assumptions on human beings. The subject only uses part of the truth to explain the whole. This method of using incomplete truth to represents their true nature eventually leads to incorrect or even wrong conclusions. That is why it becomes increasingly necessary to adopt a Buddhist paradigm that incorporates an understanding of human nature into economics. Such a paradigm will serve as an analytical tool to understand human beings both in greater width and depth. It will reshape the incorrect or wrong conclusions from the narrow frame of thinking in mainstream economics which is also sometimes referred to as autistic economics.

Apart from what was explained above, the word Buddha also means one who knows, an awakened one and an enlightened one. Given this definition, it can also be explained that Buddhist Economics looks at the subject of economics as it is understood by one who knows, an awakened one or an enlightened one without any limitation to the person's religious beliefs including persons who claim to be non-believers in

any religion. The author hopes that mainstream economics based on incomplete assumptions on human nature will be eventually replaced by Buddhist Economics.

The word Buddhist, translated into Thai should not be translated as *Setasart Naew Puth* or literally "a stream of economics based on Buddhism". Although it is not far from its original meaning in English, it actually implies that Buddhist Economics is one among many streams of economics, which is correct. However, it may not be so close to actual fact since, in Thai, it also carries the implication that mainstream economics is already good, that is, it does not require improvement or re-interpretation. It is obviously not correct if *Setasart Naew Puth* is being interpreted in this way. The author wants to make it clear from the outset that the development of Buddhist Economics as a new body of knowledge is to invite the world to pay increasing attention to this new interpretation of economics. It can be the economics that is consistent with both the human way of life and a sustainable future for the world.

From what has been explained above, it is also obvious that Buddhist Economics is not economics for a Buddhist. Economics for a Buddhist discriminates against non-Buddhists which should not be a result of designing this new body of knowledge. It is meant to be for everyone who wants to know, to be awakened and to be enlightened. Such a person does not have to be confined to any particular religion or any specific belief and can even be a non-believer.

In conclusion mainstream economics can be defined as:

A subject related to economic activities with the goal of an individual achieving maximum utility under the condition of resource constraint and for the society to reach maximum welfare under the same condition.

Given the said definition of economics, Buddhist Economics can be defined as follows:

A subject related to economic activities with the goal for both individuals and society to achieve peace and tranquility in a material world under the condition of resource constraint.

The difference between the two definitions is the maximization of utility and welfare in mainstream economics, and the achievement of peace and tranquility (or happiness gained from peace) in Buddhist Economics. The two different definitions indicate the clear difference between the two approaches. This difference results because each has been derived from different understanding of humanity coming from two different civilizations, Western civilization for mainstream economics and Eastern civilization for Buddhist Economics, developed from the teaching of Buddha. The main difference is the understanding of human beings, and especially the root cause of conflict, pain or *dukkha*. Buddhist Economics is designed to save human beings from pain in a true sense.

The Status of Buddhist Economics as an Academic Subject

"Buddha" is not the name of a person but rather it means the one who knows, awakes, and is enlightened. If we look at that definition, we might ask "how is it that one knows, awakes and becomes enlightened?" It must be achieved by *pañña*. *Pañña* is not the same as "wisdom". It literally means the ability to understand a thing in its own nature. Since the word *"Buddha"* also implies that the person must be able to know or to understand the truth of nature, or the truth of one's own life, *pañña* will serve as the most useful tool to understanding natural truth. Being the knower, the awakened one, or the enlightened one results from the development of *pañña*. It is not a mere understanding in a shallow sense but the knowing from actual experience. The word "experience" implies some action of training and/or practice. If it were merely a matter knowing or understanding in a shallow sense, it could be achieved through contemplating or logical deduction without any training or practicing.

Under this interpretation, Buddhist Economics is an economics subject where a person can approach the truth of the subject on his/her own. The important words here are "approach" and "on one's own" or approaching the truth on one's own. This phrase says that a person must approach a certain set of experiences or, perhaps, has already experienced such things before. This is the most difficult part for most people to understand: the deep sense, the essence of the teaching of Buddha. Unless the person also experiences things on one's own, it is a mere understanding in a shallow sense recognized by most people.

In the introduction to his book *"Buddha Dhamma"* (1983), Venerable Dhammapitaka (P. A. Payutto) started by explaining that *Buddha Dhamma* is not a religion in the Western sense. It does not rely on faith

nor does it require a person to be a true believer in anything in the first place. If there is some fundamental belief in Buddhism, that belief is not to believe in anything until you yourselves know: "These things are good; these things are not blamable; these things are praised by the wise; undertaken and observed, these things lead to benefit and happiness". (The 10 rules of the *Kalama Sutta* that will be elaborated later) Apart from not being a religion, *Buddha Dhamma* is not a philosophy in a Western sense either. The word "philosophy" comes from the Greek, and a philosopher is a lover of wisdom. Since the word wisdom, as we stated before, does not have the same meaning as *pañña* it is not really comparable. Remember that *pañña*, in the ultimate sense, means the ability to understand everything in its own nature. This is the necessary and sufficient conditions for a human being to be free from pain or *dukkha*. *Pañña* has its own specific meaning with no comparable word in English.

The word philosophy refers to a thought or concept that the thinker (philosopher) feels is a good idea or method of doing something. It may be based on prior observation it may be only a mental exercise. However, either way, there is no requirement for the philosopher to act according to his thoughts. There have been many philosophers who have had good thoughts but did not practice according to their own teaching. These persons normally claim that they are only thinkers. They love good ideas but they do not necessary have to practice them. More over philosophy is only ideas. It is part of human creation and does not necessarily reflect the true nature of anything.

Buddha Dhamma is a teaching of Buddha emphasizing only one specific point: how to relieve human beings from *dukkha*, that is, pain or suffering. The ground of this teaching is from actual experience through practice and it has been proven to be true among those who have learned and actually experienced what the Buddha taught. A group of students of the Buddha, following his teachings were able to confirm the knowledge he shared as they became *Arahantas* (enlightened ones). To reiterate, *Buddha Dhamma* is the teaching of Buddha. It is a body of knowledge gained from practical experience. It is not knowledge derived from human thought alone. As *Buddha Dhamma* is a body of knowledge gained from actual practice, particularly the part to alleviate human suffering, it is the knowledge gained through practice yielding results. In order to explain such knowledge within the scientific framework developed in the West, such knowledge is already beyond the status of a belief or a theory. It is in fact, a tested theory with a proven result that confirms the theory.

For the reasons explained above, *Buddha Dhamma* is not a philosophy as its results can be empirically demonstrated and not a religion because it requires no faith or revelation. Knowledge gained from practice has already achieved the anticipated result. This fact further implies that it is practical knowledge. This kind of knowledge is different from "philosophy", as philosophy may have more depth and greater width in the thought but it may not be practical because it may not be clear enough for many people to understand and practice or it just may not conform to reality.

In conclusion, *Buddha Dhamma* is knowledge gained through actual practice and not a mere thinking. Therefore, it is not philosophy. As *Buddha Dhamma* is neither religion nor philosophy it can be simply explained as being a teaching of Buddha. Hence, the word Buddhist economics implies the application of the teaching of Buddha to economics developed from western civilization. If one compares Buddhist economics with others having similar status, it will be the same as economics proposed by economists such as Smithian economics (the economics of Adam Smith), Marxian economics (the economics of Karl Marx), or Keynesian economics (the economics of John Maynard Keynes). More recently we have seen economic systems proposed be people who were not even economists like Reaganomics (the economics of Ronald Regan, the former President of the United States of America). He was a former actor. In Thailand we had Thaksinomics (the economics of Thaksin Shinawatra, the former Prime Minister of Thailand). He was a criminologist, a businessman, and a politician and is now a convicted felon.

The reason that such emphasis is being made of the structure of Buddhism and how it relates to Buddhist Economics here at the outset is to not only reassure Buddhists that this concept is not a downgrading or disrespect of Buddhism but also to demonstrate to non-Buddhists that Buddhist Economics is not a matter of religion. It is an attempt to make it clear for those who believe in "scientific method" to be assured of that. The subject is not a religious matter and it is not a value loaded proposal.

Without such explanation the subject will be treated with bias. There will be an attempt to ignore this subject from the outset, based on personal beliefs shielding the person from the truth. In order to reduce such bias from the start, it is necessary to clearly explain that the status of Buddhist Economics is neither a "religion" nor a "philosophy" as usually understood within the Western context. It is merely the application of Buddha's teaching to the subject of "economics" developed from the West. Its original status is similar to the teaching of a philosopher or a Western thinker that can be applied to the subject.

The Necessity for the Development of Buddhist Economics in Thailand

The purpose for the development of Buddhist economics presented in following chapters is to provoke the thoughts of the Thais who predominantly claim to be Buddhists. Although they may have some basic understanding of *Buddha Dhamma* and live their lives according to Buddhism, they may not realize that there is inconsistency or incompatibility between Buddhism and the economics they have learned in school. The main aim of the author is not for Buddhist economics to be an alternative stream or subservient to mainstream economics. In fact, mainstream economics relies heavily on unrealistic or at least an incomplete model of the nature of human beings. The fact that the assumption made in economics is not consistent with the true nature of humankind may result in unnecessary hardship, suffering for all humankind leading in the end to self-destruction. There is a distinct need to correct the basic understanding in economics to be much closer to the true nature of human beings, so that human pain and suffering caused by this contradiction can be significantly reduced.

Such attempts are not only restricted to Thailand. Apart from the seminal work of E. F. Schumacher, chapter four, entitled *"Buddhist Economics"* in *"Small is Beautiful"* (1973) this particular work has been widely expanded and quoted. There are also thinkers of other nationalities. Among them is Glen Alexandrin, a now retired economics Professor at Villanova University in the USA who wrote the manuscript *"Basic Buddhist Economics."* (1996) In 1997, Shinichi Inoue, the former General Manager of Miyasaki Bank of Kyu-shu, Japan, wrote the book called *"Putting Buddhism to Work: A New Approach to Management and Business"* and A.T. Ariyaratne, a well-known social activist in Sri Lanka who founded the *Sarvodaya Shramadana* (Awakening of All) Movement for rural development, self-reliance and mutual self-help wrote a book called *"Buddhist Economics"* (1996). All these writers were in part influenced by the work of Schumacher.

For more than two decades since the work of Schumacher in 1973, there have been various attempts in Thailand, as the country is predominantly Buddhist, to implement and develop the concept and practice of Buddhist Economics.

Pridi Bhanomyong was the first person in Thailand who attempted to introduce *Buddha Dhamma* for social development, and political economy. The evidence can be found in the book *"Khao Klong Set-takij"* (Economic Structure, Luang Pradit Manudham, 1999). He suggested in this book that the economic structure he proposed was based on the coming new Buddhist era of *Sriariya*. There was also a trace of his Buddhist thought in his two other books *"Anicchang Khong Sangkom"* (The Impermanence of Society, 1960) and *"Phra Chao Chang Phurg"* (The King of the White Elephant; 1980). He attempted to establish the forest-style Buddhist temples of Suan Mokha at Chaiya, in both Ayuthaya and Chiang Mai. Unfortunately, the two projects never materialized. The elder Thai statesman was named as one of the great personalities of the 20th century by UNESCO in 2000.

Venerable Buddhadhasa, the Buddhist monk who founded Suan Mokha at Chaiya gave a sermon twice on September 14 and 15, 1974 at 8.00 p.m. to leading judges in Thailand at Suan Mokha, the district of Chaiya, Surathani Province. Later on, that sermon was published as a book called *"Dhammic Sangkomniyom Baeb Padejkarm"*. (Dharmic Socialism of a Dictatorial Type, 1975). He explained that the core values of Buddhism are of a social democratic ideology. It considers all living things as comrades who joined by and in *dukkha* resulting from birth, old age, sickness, and death (Buddhahasa, 1975:15). He explained that although Buddhism employed a democratic ideology, it was democracy of a dictatorial type. Dictatorial here referred to control and the feeling was that the control needed was of *kilesa* or defilements. If liberalism was allowed, *kilesa* or defilements would finally control the human mind. In addition, he

explained that religion was also a part of social science (Buddhadhasa 1975:73). Later on Prawes Wasi wrote a book called "*Dhammic Sangkom*" (Dhammic Society, 1985). He elaborated further that a society that applied dhamma or righteousness would be a society with freedom and tranquility, since it would be free from all the pressures in life (Prawas, 1985: 12).

On July 18, 1974 King Bhumibol gave a speech to graduates of Kasetsart University emphasizing that the national development must begin from a foundation of sufficiency for the majority of the people. He reiterated this concept again on Wednesday December 4, 1974 at Dusidalai Hall, Chitralada, Dusit Palace. This marked the introduction of his proposal on *"Sufficiency Economy"* that was to be subsequently clarified and developed. An important clarification came in his speech on Friday December 4, 1998 at Dusidalai Hall, Chitralada, Dusit Palace, explaining that Sufficiency Economy implied moderation, honesty, not too much greed and not taking the advantage of others. This proposal can be considered as a proper way to carry out economic activities according to *Buddha Dhamma*. The King himself experimented with this idea and presented many concrete examples even before his speech in 1974. Subsequently, his speech was ignored by a series of subsequent Thai governments. Through his continual experiments, he came up with one concrete form of Sufficiency Economy in the form of the *"New Theory"* of farming. This form of farming was presented to the Thai people for the first time on Sunday December 4, 1994 at Dusidalai Hall, Chitralada, Dusit Palace. After that, he discussed the concept annually until December 23, 2001. His attempts clearly indicated that the King actually wished Thailand to carry out economics activities applying *Buddha Dhamma*.

In 1983, Prawes Wasi proposed the concept of *"Buddha Kasetakam"* (Buddhist Agriculture). He proposed that the country apply Buddhism to agriculture as agriculture was the principle economic activity of the country. The reason was that Thailand had a long-term experience in employing agriculture as her main economic activity. At the same time, Thailand also has had Buddhism as her cultural and ethical root. The work of Prawes Wasi was inspired by many good examples of Thai farmers, such as Mahayoo Soonthornthai the most successful farmer in integrated farming, Wiboon Khemchalerm, who developed a type forest agriculture and Kamdueng Pasi who proposed another form of natural agriculture, among others.

Sanoh Unakul is a renowned economist both domestically and internationally. He has held various important titles in Thailand such as Deputy Under-Secretary of the Ministry of Commerce, Governor of the Bank of Thailand, and Secretary General of the National Economic and Social Development Board. He was subsequently appointed as the Deputy Prime Minister during the Anand Panyarachun government of 1991-1992. On May 15, 1987, he gave a talk to Buddhist monks and academics at Wat Borworniweswiharn. He explained that the Fifth National Economic and Social Development Plan (1982-1986) that he was responsible for, was a Buddhist Economic Plan. He further elaborated that the Plan employed the three leading principles of Buddhism, namely refraining from bad actions, doing only good ones, and trying to purify the mind. He explained in addition that, the poverty problem must be solved at its root in order not to create new causes. This was what he meant by refraining from bad actions. In recommending doing only good actions, he suggested that Thailand should use her existing resources in the most efficient way possible. This was demonstrated in the plan for the development of the Eastern Seaboard. The Plan also included an emphasis on the quality of development instead of the quantity as had been the emphasis in the past. The part of trying to purify the mind was demonstrated by slowing down material development, since such a rush could result in more social and mental problems. Therefore, the Fifth plan was designed for continual adjustment in order to reduce severe social impacts caused by uncontrolled, rapid material development (Unakul, 1988: 1-10).

In May, 1982, Venerable Dhammpitaka (P.A. Payutto) wrote a book *"Buddhist Economics"*. Later, in July, 1984, the book was expanded with a little change in its title to *"Buddhist Economics: A Middle Way for the Market Place."* His book redefined various economic terms to be more consistent with Buddhist economics. Among them were: value, consumption, moderation, non-consumption, over-consumption, contentment, work, production and non-production, competition and cooperation, choice, and life views. He explained that *avijja* or ignorance was the limitation of life. It could cause various problems that

resulted in *dukkha.* Without *pañña*, human beings become slaves of cravings. Their attempt to survive under the dictates of cravings in a hostile world leads to searching and accumulating more material wealth that satisfies desire for self-interest, propagates and perpetuates *avijja* or ignorance.

With *pañña*, the ability to understand everything at its own nature, desire can be changed into *chanda* or motivation to do good things. *Chanda* can then lead to well-being or benefits for all. *Chanda* can lead to creative actions without causing *dukkha*. Without cravings, the real utilization of all economic activities would emerge. With cravings, desire, and delusion, a person is still tempted by appealing things and sexual attractions. Desire controlled by kilesa or craving and delusion only results in artificial value. Being able to understand a material world this way, the new meaning of consumption, production, competition, choice, and wealth can meaningfully emerge rather than what appears in an economics controlled by *kilesa* or defilements (P.A. Payutto 1994: 38-59).

In 1984 Sulak Sivaraksa, a leading Thai intellectual, edited a book *"A Buddhist Vision for Renewing Society."* In it there were two papers related to Buddhist economics: *"Buddhism and Development"* and *"Buddhism and Society"*. In *"Buddhism and Development"*, Sulak Sivaraksa warned that the word "development" itself in both Pali and Sanskrit means "chaotic" or "confusing." In Buddhism the word could mean either progress or regression. He questioned the concept that as the economy under capitalism controlled by market economy, if the economy is to expand continuously, greed must be continual stimulated for both consumers and producers. The question that should be raised is whether there is any religion that endorses such behavior. (Sivaraksa, 1994:62) In his paper "Buddhism and Society" he points out that socialism is consistent with Buddhism without any exaggeration (Sivaraksa; 1994:195). He quoted Mao Tse Dong who admitted that his mother was a woman with great comparison because she was a Buddhist and that quality influenced him greatly. Sulak Sivaraksa pointed out that, if Marxism could reduce its aggressiveness with more tolerance and humility and with strong courage to fight for the right course, it could be more comparable to Buddhism. Given the said quality together with gentleness, self awareness, non-violence, and without *dukkha*, in other words, a Buddhist tradition, all these factors would support a more humane society (Sivaraksa, 1994: 208). Sivaraksa's explanation of Buddhism is close to that of Ven. Buddhadhasa. That is, socialism has its strong points in understanding and analyzing structural problems systematically while at the same time its weakness are aggressiveness and violence instead of tolerance and non-violence. It should also be observed that apart from Schumacher, who influenced most of the writers discussed above, Sulak Sivaraksa is another world renowned authority in Buddhist economics. His work has been quoted by Glen Alexandrin, Inoue and Ariyaratne.

King Bhumibol was not impressed by the period of rapid economic expansion in Thailand (1987-1995). He continuously warned the Thai people not to be careless with risk-taking behavior. This warning was reflected in the self-immunization system suggested in his New Theory in 1994. Michael Parnwell, a specialist in Thai Studies and Development also cautioned against imbalanced development in his book *"Uneven Development in Thailand"*. In his book he quoted his interview with Sippanont Ketudhat, a former President of the Executive Board of the National Economic and Social Development Board. In 1990 Sippanont Ketudhat explained the meaning of development as follow: Our political culture was deeply influenced by the standard of *Buddha Dhamma*, the standard used to evaluate our progress in terms of real development must be consistent with the standard in *Buddha Dhamma* (Parnwell, 1996: 289). In the same book, Parnwell also quoted Sanidsuda Ekchai in 1994 when Thailand still had a very high rate of economic growth. Sanidsuda Ekchai stressed moderation or the middle way of *Buddha Dhamma* as follow:

"We should live a more simple life that what we are doing currently. We should consume less and share more. It is not because we want to make merit. Our way of life based on existing social structure has been built and supported by hardship of majority of people. We should change our way of life as well as social structure in the way that not only deprived and marginalized persons can improve their living but also to improve our own well-being" (Parnwell, 1996:289)

In 1997, in his book *"Southeast Asia: the Human Landscape of Modernization and Development"*, Jonathan Rigg discussed the development within the Asian region with strong emphasis on Indonesia and

Thailand. He discussed alternative development paradigms by introducing Buddhist Economics and Islamic Economics for Thailand and Indonesia, respectively (Rigg, 1997:51-53). The point to be raised here is that for foreigners who are interested in Thailand, such as Parnwell and Rigg cannot neglect the topic of Buddhist economics in the context of development of Thailand, regardless how much they actually understand the subject.

Preeyanuch Piboonsrawut, now an official with the Crown Property Bureau, presented her doctoral dissertation *"An Outline of Buddhist Economics Theory and System"* to Simon Fraser University, British Columbia, Canada in 1997. In her dissertation, she divided the theoretical aspects into two parts. One was called Positive Theory and the other Normative Theory. The positive theory was developed from three axioms. They were *anatta (*or non-self), *aniccata* (impermanence) and *dukkha* (that she translated as "unsatisfactoriness"). She also introduced the Buddhist Economics paradigm's view of human nature: (1) each individual is part of the connected whole and (2) each individual lacks perfect knowledge. The analysis was through game theory in order to form a positive economic theory. Each economic agent tried to reduce their *dukkha* as much as possible. The awareness that each one was suffering from *dukkha* resulted in each trying not to create or to impose *dukkha* on others. In considering *avijja* or ignorance, the game could not continue on a positive plane. The normative theory had to be introduced, based on the standard of vernacular life in *Buddha Dhamma* for a peaceful and serene life. Such normative rules included understanding the law of *kamma* or deed or action, the effects of *dana* (giving), *sila* (morality) and, *bhawana* (meditation). Such understanding results in giving and generosity, avoiding immoral thoughts and actions and the development of concentration for the emergence of *paññ*a. In this way, an economic agent can be relieved from dukkha (unsatisfactoriness or suffering) (Piboonsravut, 1997: 148-189). 1999 was the sixtieth birthday of Ven. Dhammapitaka (P.A. Payutto). A book was published for this occasion, *"Socially Engaged Buddhism for the New Millennium"*, with Sulak Sivaraksa, Pipop Udomittipong and Chris Walker as the joint editors. There are four articles related to Buddhist Economics in this volume. They are *"A Buddhist Approach to Social and Economic Development: An Experience from Sri Lanka"* by A.T. Ariyaratne, *"Buddhist Engagement in the Global Economy"* by Helena Norberg-Hodge, *"Overcoming the Grip of Consumerism"* by Stephanie Kaza and *"The Spiritual Roots of Modernity: Buddhist Reflections on the Idolatry of the Nation-state. Corporate Capitalism and Mechanistic Science"* by David Loy.

As the work of Ariyaratne has already been discussed in this chapter and will be discussed more in chapter thirteen, it will not be repeated here. The work of David Loy will be discussed in details in chapter nine and work on consumerism similar to that of Stephanie Kaza has already been discussed in this chapter. A brief summary of Helena Norberg-Hodge is presented here. Norberg-Hodge pointed out that globalization that accompanied free trade results in destruction of bio-diversity. The laws of *aniccata* and *kamma* could be used to explain continuously increasing trend in the economic gap within the world's population. *Buddha Dhamma* would help each individual to step back from globalization with conscience. An emphasis on Buddhist economics would help strengthen local communities and provide immunity from the shocks of globalization.

All the literature cited here demonstrates attempts to use *Buddha Dhamma* to solve socio-economic and political problems in Thailand more than 60 years already. The recognition of the use of Buddhist Economics is also from many countries including the USA, Japan and Sri Lanka as well as Thailand. As one looks at the history of the development of economic thought in the West, one sees that the part that is missing is an adequate model of the reality of human behavior. The use of mainstream economics' current model of *homo economicus,* initially introduced by John Stuart Mill and further elaborated by Alfred Marshall, as a rational, perfectly informed and self-interested agent who desires wealth, avoids unnecessary labor, and has the ability to make judgments towards those ends, only generates alienation and much harm for human beings. The use of the Buddhist Economic model of man where, reiterating, each individual is part of the connected whole and each individual lacks perfect knowledge, allows Buddhist Economics the potential to be developed into a social science that can actually be used to serve humanity.

Concepts to be Discussed in the Following Chapters

Chapter two begins by observing the paradigm shift that developed within Western civilization, transforming from modernism to post-modernism starting towards the end of the 19th century to the beginning of the 20th century. This paradigm shift is from the former belief that there is only one correct answer, the belief in mechanistic physics of Newton that claims mathematics is behind natural rules and can be used to explain almost everything. The shaking of such belief has been due to the development of quantum physics. The shaking of mathematics stems from the fact that there has been increasing risk in explaining general cases. It has been found that mathematics is no more than one set of culture. Those who belong to the club have their own specific way to communicate according to the set of rules agreed by those who share the same culture.

Certainly, philosophy is a subject developed from pure thoughts. It does not require any empirical test. It is a subject developed through discourse. With luck there will be agreement in common. The same can be said for religion that rests on faith. Religion must also change with the change of social context in order to be relevant to the way of life of the people in the society. There has been significant change in the subject of public administration that used to believe in rational decision making of the state. In economics, there has been increasing criticism of mainstream economics, the reason being that the subject still relies heavily on Newtonian physics. It continues to use mathematics in order to generate economic theories without due consideration of whether the set of assumptions made will conform to reality.

Nevertheless, the weakness of post-modernism is also due to the fact that it has been originated from western civilization rooted in an extreme, while modernism believes in one definite answer. The other extreme of post-modernism does not believe that there is any definite answer at all. Everything depends more or less on the discourse or dialogue. They may be common agreement at one specific period of time. Post modernism does not believe in any absolute truth, such as laws of nature that are beyond human control. These rules may have influences on human lives. Human beings can live a peaceful life without pain or conflict depending whether they prepare to comply with these rules.

All these lead to the studies of thoughts developed in the West emphasizing definite answer until the end of modernism. There has been a clear division of right and wrong, black and white. This will be the essence discussed in chapter three. The chapter begins from birth of natural law philosophers around 500-600 hundred years B.C. In Europe, it started from Greek civilization. In Asia, we have Buddha who lived in Northern India and in China there was Lao Tzu, who gave birth to Taoism.

These natural law philosophers had common beliefs. Before this time, it was believed that there were sacred things beyond human understanding and control. They were the ones who made things happen. The rational was that human beings should not waste their time reasoning except to worship such sacred entities so that the Gods would bring happiness and prosperity to those who worshiped them. After the birth of the natural law philosophers, there was a significant shift in beliefs. People commonly believed that there were natural laws behind everything not sacred entities. These natural laws could be clearly understood by human beings. The role of human beings was to seek the answers and try to understand these laws; human beings should use the laws to improve their own lives.

There were significant differences between the natural law philosophers of the East and those from the West. The Western ones focused on identification of things, for example, a human being, an animal, a plant, and a non-living thing. All these things were different because they had different natures. This understanding of natural law led them to static analysis. There has been a tendency to analyze an equilibrium situation. In Greece, the focus was on the relationship between each individual and the nation state. There was a quest for the ideal nation state, on how it could be created and what could be the relationship among those who lived in it. Eastern philosophers observed close relationships between human beings and all other things in the nature. The focus was more on natural harmony. As human beings were part of nature and the relationships among everything were always changing depending on different causes and effects, the analysis tended to be a dynamic one with the focus on balance between human beings and nature. Because of the fact that Western natural law philosophers used the law of nature mainly for classification, there was a strong tendency to differentiate things in term of black and white

without any room for grey area in the middle. This way of thought led to extreme logic, a prominent character of Western civilization. This tradition still continues and is behind the assumptions about human behavior. Plato was the first to explain that human beings were irrational due to the fall of man from grace. Aristotle, a former student of Plato, on the other hand argued that human beings were rational, since human beings had been created in the image of God. Since God is rational, human beings must also be rational. The two different explanations led to a polarization of thought. The implication of Aristotle's argument was that given that human beings were rational, human society could be made into an ideal one similar to the kingdom of God. However, if Plato was correct, implying that human beings were irrational, there must be social institution created to control human behavior, so that a people could lead their lives within some rational bounds.

These teachings were different from that of Buddha who focused more on the middle or grey area, instead of the extreme. Human beings were born with *avijja* or ignorance. However, a human being was different from all other animals, in having potential for indefinite development. Such development for a human being was the elimination of *avijja* or ignorance. The more *vijja* or *pañña* developed, the more human beings would be equipped with knowledge and would become more rational or reasonable. The greatest knowledge of all was to understand the four *ariyasacca* or noble truths. They were *dukkha* or pain or suffering, *samudaya* or the origin of *dukkha*, *nirodha*, or cessation or extinction of *dukkha*, and *magga* or the path leading to the cessation of *dukkha*. This knowledge would elevate human beings into a noble state. People could become completely rational or reasonable. Therefore, in *Buddha Dhamma*, whether a human being is rational depends on how much the person has developed mentally. Everything is conditional on other things. This pattern of thought reflected the dynamism in Buddhism, the heritage of Eastern civilization.

The rest of chapter three discusses the development of Greek economic thought starting from Hesiod about 800 years B.C. up to Aristotle. Hesiod can be considered as the first economist in the world who stressed scarcity. Democritus explains how prices of commodities are determined. He is the first to introduce the subjective value theory from which the concept of utility later originates. Usefulness cannot influence the price as much if commodities are plentiful or are in unlimited supply. A human being should try to limit their desire so that the perception of relative wealth is decreased. Plato suggested the benefit from division of labor in his teachings on the city state, while Socrates, Plato's teacher, discussed the sustainability of the city state. Aristotle focused on property right and was the first to explain the impact of supply and demand on price determination after the concept had been introduced first by Democritus. After Democritus, Greek thought passed to the Stoics and then to Rome. The most famous natural law philosopher in Rome with some hint of Greek thought is Cicero.

Chapter four discusses, in brief, the evolution of economic thought during the Middle Ages in Europe beginning from the Roman Empire (ranging from the first to the third century A.D.). During this period Roman law based on natural law was generally accepted. Human beings were entitled to property rights by nature. Natural law had supremacy over the law of the state. It was also the general belief that trading was the least desirable occupation. A trader could never gain from profit by not committing any sinful act. However, such beliefs gradually changed after continued economic expansion of the Roman Empire. Traders became major contributors to Christian churches. After the fall of Roman Empire in the fifth century A.D., Europe entered the Dark Ages. There was fighting amongst feudal lords and the vacuum of power left by the fall of the Roman Empire resulted in the rise of the Holy Roman Empire controlled by the Christian Church. It became most powerful after the end of the Dark Age in the 10th century.

During the fall of the Roman Empire, there was a very well known Christian scholar by the name of St. Augustine. He teaching was consistent with that of Plato on irrationality of human beings. Human beings should do their best to serve God, while living on this earth, in order to return to the Kingdom of God afterward. The teaching of St. Augustine was from actual experience from his witness of all vices taken place in the Roman Empire before it finally fell. After that, during the Middle Ages, most European scholars were Catholic priests. They studied canon law at the University of Bologna. Among the scholars of this time was St. Aquinas, who later became a Professor of Theology at the University of Paris. He was

the one who combined Greek philosophy with Roman law during the Roman Empire to Christianity born from Judaism into what is now known as western civilization. He should be considered as the true forerunner of western civilization in the 13th century, which was at its peak in the Middle Ages. During that time there was the formation of many nation states. During 14th and 15th centuries was 100 year War between England and France. This War provided a good opportunity for Spain, who was not directly involved, to develop her naval fleet and establish many colonies in the Americas and East African. Gold was imported into Spain in huge amounts. During this period, scholastic thinkers in Spain, especially from Salamanca University, developed the modern theories of the quantity of money and international trade.

In general, the High Middle Ages (11-13 centuries A.D.) through the Renaissance in Europe (15-17 centuries A.D.) were the age of mercantilism. It was the turning point in economic thought from that rooted in Christian ethics in the form of just price and the prohibition of usury to the modified ones in order to accommodate economic expansion brought about by mercantilism, supported by the combination of the three factors, namely the nation state, colony, and a technological supremacy through gunboat technology. This change resulted in the desire for more wealth. This belief became more influential than the traditional one rooted in Christianity taught by St. Augustine in the 5th century. Many economic theories were developed during the period of mercantilism. Among them were the theory of supply and demand, the theory on the quantity of money and the theory of international trade. With the exception of the theories on division of labor, perfect competition and the market mechanism developed by Adam Smith in the 18th century, there were almost no new topics discussed in Smith's book *"Wealth of Nation"* in 1776, that had not been discussed before.

Toward the end of chapter five there is a discussion of various reasons for the rapid decline in the influence of Catholic Church. First the Church became too powerful. It focused on accumulating wealth and paid less attention to traditional welfare of the people. The Church closely cooperated with the Spanish Kings in order to gain more wealth from the colonies through mercantilism in Europe.

At the same time, the nation states became increasingly strong. More scientific discoveries contradicted the teachings of Christianity such as those of Copernicus, Galileo. The two, together with the shift of the Church towards accumulation of more wealth instead of the traditional role of popular welfare, contributed to religious reform led by Martin Luther. He attempted to reform Christianity back to simplicity. Given the expansion of capitalism propelled by mercantilism, the teaching of John Calvin and the English Puritans gained much stronger ground. The result of religious reform led capitalism (rooted in mercantilism) to advance further and into the industrial revolution. Many nation states with increased strength emerged in Europe as a consequence. The new Protestant Church became the arch rival of the Catholic Church. Further scientific development gained much stronger ground. The most prominent thinkers of that time were French philosopher, mathematician, scientist, and writer, René Descartes and an English physicist, mathematician, astronomer, natural philosopher, alchemist and theologian, Sir Isaac Newton.

Chapter six discusses the development of economic thought in Europe during the time known as the period of enlightenment a school of thought of modernization influenced mostly by Newton. The discovery of Newton was supported by the reinterpretation of the teaching of St. Aquinas. At the same time the teaching of St. Aquinas was drawn from Aristotle, Roman law and Judeo-Christianity. The age of modernization was in fact the continuation of a long developed Western culture and civilization.

A contemporary of Descartes was a social philosopher known as Thomas Hobbes. He denied the spiritual meaning of God and focused only on the existing material world. The ultimate goal of a human being was to seek maximum pleasure and try to avoid pain as much as possible. Unfortunately, Hobbes did not realized that pleasure was not the opposite side of pain. Also, one individual's pleasure might be attained through pain of many others. Part of the reason of his thinking could have come from extreme classification of black and white, part of an earlier belief system in Western civilization.

The earlier discovery of the law of the gravity and the solar system by Newton had led John Locke to invent the law of "social gravity". As an individual member of a society, each person could be thought of in terms of an atom within the mass of matter that is human society. The fact that human society existed in an

orderly way, evidenced that some internal gravity within the society prevailed. Such social gravity could be self-interest. Since people normally felt insecure regarding life and property, each of them was willing to give up to the state part of their individual sovereignty in order to guarantee the security of life and property for all individuals. Locke also echoed Hobbes' teaching by saying that human beings normally sought after pleasure and avoided pain.

It was Adam Smith who further expanded on this concept in order to truly make it a "social science theory". He demonstrated the mechanism whereby self-interest could eventually work for societal benefit. He explained that division of labor would lead to specialization and higher productivity. As such, there was a need for exchange through a market system since each individual would not be able to produce everything they needed. Under the condition of perfect competition where many producers and consumers were competing in the market at the same time, the market would function most efficiently. Everyone would gain more from the said process. Smith's proposal proved that even when everyone followed their own individual interest, the whole society was better off. This is a complete system of a social gravity theory because it does not require any social contract like that of John Locke. The only difference between Newton's theory and the Smith/Locke theory is that while that of Newton is based on observation rooted in natural science, Locke and Smith's theories are based on partial observation and intuitive induction. There is no scientific basis for the proofs that will lead to such conclusion.

In order to complete all aspects of the western thoughts, the line of thought of those who believe human beings are irrational should also be discussed. This line of thought began with Plato and passed down to St. Augustine, Martin Luther, John Calvin, and the English puritans. Among leading scientists that had strong influence on this line of thoughts was Charles Darwin. He combined history and science to become a science through historical approach. History was used as a scientific proof. The outstanding explanation of Darwin was that the existence of lives was not through any rational plan but more for survival of the species. If there was any reason, it would be only for the survival of the species. Without the continuation of the species, the concept of rational would become meaningless.

One famous thinker using this line of thought is Herbert Spencer known as a social Darwinist. He explained that human society must also struggle for survival through out history. Capitalism was one phase of such a struggle. Those who had been proven to be the strongest economically were capitalists. From the long perspective of historical development, Spencer could be correct. It could be seen clearly from ancient Greece through early Christianity that traders, merchants, and business persons were looked down by the society. Later, the social position of merchants grew in strength leading to Calvin's movement and finally to industrial revolution. It has been a long evolution for the capitalist class. However, Karl Marx viewed that workers were physically the strongest. They had survived through many historical struggles. Under capitalism, workers began to learn from the system how to organize and prevail. They would finally be able to overthrow capitalism. Neither Marx nor Spencer liked capitalism. They viewed capitalism as a necessary transitional process in human history. In order to reduce human pain as much as possible, the transition must be kept as short as possible. Similar to Smith who was unable to prove the social gravity theory scientifically as Newton had proved the theory of gravity, Spencer and Marx could not offer any concrete historical proof, comparable to that of Darwin.

It was Sigmund Freud who explained the weakness of both Spencer and Marx and why Darwinian parallel was not a good explanation. He explained that the Darwinian evolution was historical not social/economic evolution. There was actual continuation of the species. Both capitalists and workers must continue their "species" through actual sexual acts. As a result, the instinct for sexual intercourse and pleasure gained from such experience was the real motivation for the action that would result in the continuation of species. Normally male sex was aggressive so in the case of humans, it was necessary for the society to create regulations in order to protect the weaker ones. Unfortunately, such regulations could result in sexual suppression that would eventually burst into social problems. Freud suggested the modification in culture that would not result in unnecessary suppression. Freud's ideas were later modified into the concept of individualism and economic liberalism.

Having explained economic thoughts in the 19th century, the thoughts of the 20th century should also be discussed and these ideas are explained in chapter seven. The new paradigm in the 20th century began with Albert Einstein's significant proposal of the theory of relativity. This theory explained that the central gravity theory of Newton was only a specific case. A general case might not be so. Einstein's theory generated new ideas in physics. At the same time, it also raised mathematics to higher level of importance in explaining systems and that had the effect of increasing the influence of mathematical models in most other subjects. In economics, John Maynard Keynes, an English economist, proposed the "General Theory of Employment, Interest and Money". This theory explained that the condition of full employment by classical economists before his time was actually a specific case, similar to the Newton specific case of gravity. In general, the economic system would produce a certain number of unemployed persons most of the time. The real cause for such happening was that, in general, the wage could not be decreased. The situation led to a higher level of wages than the marginal productivity of labor allowed. Employers would not be willing to employ the existing number of workers to the point of full employment. The situation required government intervention in order to increase the aggregate demand. After such intervention, full employment could be achieved.

By using a mathematical relationship to explain the work of the economic system, Paul Samuelson, a U.S. economist, also contributed to systematically raising the status of economics to the level of Einstein's physics. This new attempt raised the status of economics to the level of science for social studies, at least in the mind of generations of economists after him. Samuelson also focused on market efficiency as Keynes did. For a market to function efficiently there must be occasional intervention by the state whose responsibility is to look out for the social welfare. The last part was one major assumption made by Samuelson.

Like Samuelson, Milton Friedman also believed in market efficiency. However, influenced by the ideas of Freud and Spencer, he preferred a free market. Friedman had the opinion that both the government and its officials had their own vested interests to be protected in spite of their benevolent tendencies. As a result, most of the time, government interventions were ineffective. Apart from the vested interest of individuals or groups, the delay caused by official rules and regulations could also create problems. Friedman always advocated for small sized government with emphasis on a few simple and transparent rules. The rest could be left for the market to mange. His thoughts have been widely applied, especially in the implementation of economic globalization.

Having analyzed the long evolution of mainstream economics, attention should be paid to various alternative economic theories that have developed. The one that is closest to Buddhist Economics is Humanistic Economics and this is presented in chapter seven. Humanistic Economics as a new stream of economics had it official beginning in the 1960's with the introduction in 1960 of the academic journal *"The Journal of Humanistic Psychology"* by the American Association for Humanistic Psychology led by Abraham Maslow. Humanistic Economics focuses on human need which has been equated with the concept of value. It explains that there is development of value in human beings starting from material value or material need and progressing through social value or social need to moral value or moral need.

The concept explained above can be traced back to Thomas More who wrote the book called *"Utopia"*. Included in this stream of thought right after Adam Smith, was Sismondi. He explained the goal of economics was the use of wealth for creating happiness for a human being not for the mere generation of wealth. The next thinker who was influenced by Sismondi was John Ruskin. Ruskin was inspired by Thomas Carlyle who translated Sismondi's work in French into English. Carlyle was the first to describe economics as a dismal science. The most important work of Ruskin was his opposition to John Stuart Mill, the most famous economist of his time, who claimed that the assumption could be accepted that human being always sought after economic wealth. Ruskin was of the opinion that the love for other fellow human beings and the society should be the main reason supporting the continuation of the society. After Ruskin, another English thinker was John Hobson. He was a thinker, a writer, and a social and political activist. His work resulted in important changes in laws and many pro-poor policies. Apart from Hobson, another thinker along these lines of thought was Richard Tawney, an economic historian who focused on equality.

One prominent Asian thinker who was influenced by Ruskin was Mohandas Gandhi known in India as Mahatma Gandhi. He wrote in his auto-biography that his life was completely changed after he finished his education in England and was on the way back to South Africa reading the book of Ruskin on the train. Schumacher who was mentioned earlier was another English thinker (born in Germany) was inspired by Gandhi together with the experience of his work in Myanmar. Schumacher was a thinker in line with Humanistic Economics who included Buddhist Economics into his thought. He was also the one inspired many others to write books on Buddhist Economics as discussed before.

The common ground of both humanistic and Buddhist economics is that both focus on human needs instead of want or desire or cravings as a driving force. Human needs are the basic foundation of all human beings regardless of time, race, ethnicity, tradition, and culture. The only difference between the two is the growth in human value. As humanistic economics roots in western civilization, its analytical tool rests heavily on behavioral science with strong emphasis on the concept of "self". Buddhist economics focuses on non-self, the starting point for the development of *pañña*. Material needs for basic necessities are required for survival. Social needs are not necessary as *pañña* is developed to a higher level.

Chapter eight summarizes the development of economics thoughts originating in the West in order to briefly review the development before introducing the essence of Buddhist economics in chapter nine for continuation of the discussion.

Chapter nine starts with a systematic analysis of human beings based on *Buddha Dhamma*. The development of Buddhist economics starts by using one of the most important laws of nature. This law was true in the past, it is still true now and it is anticipated to be true in the future. This law is said to be timeless in the sense that it is not subject to any specific period of time. It consists of the three characteristics of anything whether it is living or not. The first one is *aniccata* or impermanence. Everything is changing all of the time. Such change is caused by both internal and external conflicts (*dukkha)*. Because of this fact there is nothing left to hold onto. This state is called *anatta*. These three characteristics of all things are known as *tilakkhana* or the three characteristics of a thing observed from different viewpoints. This law is true through out all time. It is the nature of everything that is beyond the control or intervention of human beings. Having the right attitude towards this fact and understanding that everything is impermanent is to understand everything in its own nature, or to have *pañña*. To hold on one's "self" is not the right thing to do, since the so called "self" does not actually exist. Like everything else it is impermanent. Without any attempt to hold on to "self", a person can actually behave in a way consistent with nature. There will be no *dukkha* and instead the person will experience the state of happiness or peace and tranquility known as *sukha*. This concept of "happiness" is very much different from that concept of "pleasure" developed from the West. It is a stage of happiness resulting from the reduction of *dukkha.*

Pañña is the most important concept in *Buddha Dhamma*, while *atta* or self is a mirage or illusion. At the same time, the concept of *anatta* or non-self is not simple to understand. An analytical tool that will help to understand *anatta* clearly and also explain why it is very difficult to attain *pañña* is *khandha* or the five aggregates. The five aggregates are known as *pañcakkhanda*. These five aggregates are the causally conditioned elements of existence forming a being or making up the so called "self". *Pañcakkhanda* consists of *rupa* (corporeality), *vedana (*feeling), *sañña* (perception), *sankhara* (mental formation or volitional activities) and *viññana* (consciousness). They exist at a specific time and with specific conditions forming into consciousness of "self". If any part is missing, a "self" will not be completed. *Rupa* or corporeality serves a door or a window to allow external information to flow inside and consists of six parts. These six can be considered as the receivers of information. They are the eyes for seeing, the ears for hearing, the nose for smelling, the tongue for tasting, the skin for sensing, and the mind for understanding. Information from outside is transmitted through a carrier to a receiver that serve as the point of contact known as *phassa.* The internal acknowledgment of the information is known as *viññana* or consciousness. *Viññana* also serves as an internal carrier of information received from outside. *Viññana* simultaneously brings the information to the attention of *vedana* (feeling), *sañña* (perception), and *sankhara* (volitional activities). *Vedana* or feeling will sense the information and evaluate its effect on

a person's life; that is, tell whether it is *sukha* (good) or *dukkha* (bad) or neither *sukha* nor *dukkha* for life. *Sañña* or perception serves as a databank or memory; it will compare the new information with the existing information. If it is a new experience, it will keep in the databank to be recalled for use in the future. *Sankhara* or volitional activities will react to the information by either reacting with various forms of wishes or reacting with *upekkha* or neutrality, the most important function of *ankhara* is *upekkha.* The neutrality state of volitional activities is the one that will result in the emergence of *pañña*, the ability to understand everything at its own nature because the mind ceases to generate its own imaginations. One other good volitional activity is concentration. It will also control the functioning of both feeling and perception so as not to distort the information received. The result will be the ability to understand things in the outside world in their own nature, the same as having *pañña.*

Consequently, the perfect conditioning of all of the five aggregates of life is essential for the emergence of *pañña.* Apart from, eyes, ears, a nose, a tongue, and skin, the five basic receptors of external information that must not be impaired, the most important component is the mind and that must also function perfectly. After the information is carried by consciousness inside, volitional activities must control both feeling and perception to work normally and not distort the information; the volitional activity itself must not distort the information either. The highest level in the development of *Buddha Dhamma* is therefore the development of *pañña.* It must be sharpened all the time, so that it will understand everything in its own nature instantaneously. Once everything has been understood in its own nature, *dukkha* (conflict or contradiction originated from ignorance) will never exist.

If the above explanation is not clear enough, because it does not cover the dynamism of everything, it can be explained by another concept called *paticcasamuppada*, the law dependent origination, or the law of cause and effect. It explains that the movement along *samsara* (the wheel of life) starts with causes and other related factors and yields the end result. The main cause for all problems is *avijja* or ignorance. Therefore, in order to be completely out from *samsara* (the endless wheel of birth, death, and rebirth again) ignorance must be turned into *vijja* or *pañña.* For the reasons we have discussed, *pañña* is the one and only tool for a person to be ultimately free from *dukkha.*

As *pañña* is the most important state of human development in Buddhism, the application of this tool in Buddhist Economics is the essence discussed in chapter ten. This chapter begins with the application of *Buddha Dhamma* to mainstream economic frameworks. In this study, we will look at seven theories. The first four will be called the pure theories of Buddhist Economics. They are production, consumption, utilization, and distribution. The remaining three deal with the application of *Buddha Dhamma* into other related concepts: time use theory, economizing theory, and the theory of work satisfaction.

Chapter ten begins by developing the concept from mainstream economics explaining the production function mostly as a function of capital and labor. It does not normally take into consideration the waste resulting from the production process. The main reason is that the relationship that includes waste in the function cannot be shown mathematically in a neat form. This demonstrates the tendency to ignore the truth for mathematical convenience. As such, the production process mainly focuses on capital as the mode of production. In other words, it automatically assumes capitalism by considering capital as an over-riding factor. However, if the factors of production are further classified in details for an analytical purpose, the way the five aggregates have been classified for clearer understanding, all input factors will be defined in aggregate as resources, to mean that things that have not been used in this specific production process before.

After that, the resources are further classified into human resources (human capital), implying that a human being must also involve into a production process. Another category is resources created by human beings for production known as human made resources (manufactured capital). The last category is natural resources (environmental capital) that come from nature. All of these resources can also be further sub-classified. Human resources can be divided into brain and muscle power. The two cannot actually be completely divided as muscles function with the coordination of the brain; however, the division is to differentiate the end results. This division will lead to greater emphasis on brain power, the part that did not receive adequate attention in the mainstream economics. The human made resources can be

subdivided into capital and technology. Again, they cannot be totally separated, since capital accumulation and an appropriate market contribute to the development of production technology. The last category of environmental resources can be further divided into energy and other natural raw materials. Given these classifications together with the consideration of waste from the production process, sustainable development can be clearly discussed from the production function. Sustainability cannot be validly discussed in mainstream economics because of the absence of waste in the production process. In mainstream economics, sustainable development can always be achieved because there is no waste in the production process. This conclusion does not conform to reality.

Brain power can be further divided into *pañña* and intelligence. Intelligence is the ability to think within a logical framework through reasoning. Human intelligence can create capital and technology. *Pañña* must be able to control the way that intelligence is used in the production process in the use of capital and technology as well as using energy and natural resources in a more sustainable way. For the reasons discussed above, *pañña* will be the mode of production in Buddhist Economics. Therefore Buddhist Economics results in *pañña-ism* not capitalism.

Consumption theory in mainstream economics puts great emphasis on maximization of utility under income constraint. Analyzed consumption through economic process, it becomes apparent that production and consumption share the same economic process, consisting of inputs, a process and output and waste. Following the mainstream economic logic, consumption is also a production process that produces utility. The inputs are goods and services used for consumption. However, in production, a mainstream economist will always stress inputs or resource efficiency. The resulting product should be maximized while minimizing the resources and waste. Unfortunately, when it comes to consumption, mainstream economics never mentions the concept of efficiency, although it is the same concept. This shortcoming is due to mainstream economics' consideration of consumption and utility maximization as the end of economic process. In Buddhist Economics the ultimate goal of a human being is to be without *dukkha* or to achieve the stage of peace and tranquility. This stage can be achieved through human development and the development of *pañña*.

The real purpose of consumption is to support life by revitalizing the degenerating parts in order to maintain a healthy body and mind. Keeping the body and mind healthy is the only way to cultivate *pañña*. This type of consumption, resulting in a healthy body and mind, can be referred to as sufficiency. This concept has its counterpart in mainstream economics known as optimization. It is the level of consumption designed to satisfy physiological needs as explained by Maslow. This level of consumption can be said to be the most efficient one.

Discussed both production and consumption in the said manner, sustainable development apart from the development of *pañña*, additional concepts must also be discussed. *Pañña* emerges as a part of the process of *sikkhattaya* or the three fold training. The three fold training can be combined into only one and be translated as the *magga* or the Noble Eightfold Path. The eightfold path can be sub-divided into three groups. They are *sila* or morality (including right speech, right action and right livelihood), *samadhi* or concentration (including right effort, right mindfulness and right concentration) and *pañña* (including right view and right intention). It is a process of study through actual practices which is central to *Buddha Dhamma*. The threefold training must be carried out altogether without missing any one. The process may begin from *pañña* in its most basic form of faith, or belief. That is the belief that there is value in living a moral life by only thinking and doing good. This faith or belief will induce the practice of *sila* by doing only good things and refraining from doing bad things to oneself as well as all other living things. *Sila* will then contribute to purify the mind. With a purified mind, concentration can be achieved more easily. In this way the volitional activities incline not to make any desires that do not conform to reality. In other words, the volitional activities will mostly take the position of neutrality. This will give rise to a situation where feelings and perceptions play unbiased roles. The mind cannot be controlled by defilements such as anger, hatred or delusion. Under this condition *pañña* will develop further.

At the new level of development, *pañña* will understand more of the nature of life. This time, it will not require belief or faith, but will have come to a deeper understanding of the real benefits from practicing

sila. There will be further improvement of moral thoughts and actions resulting in a better level of concentration. At this point a person will have clearer understanding of life. Finally the conditions of a clean mind, from *sila*, a calm mind from *samadhi*, and a clear mind from *pañña* will result in a unified state of mind called *nibbana*. This is the state of mind that is completely free from *dukkha*. The goal of each human life on earth is to try to reach and maintain *nibbana*. If a person is able to maintain such condition of mind all the time, that person will attain the status of *arahanta,* the worthy or deserving one or the one who attains *nibbana* all the time. An *arahanta* is considered to be a holy one. This state of mind does not imply that the person must be disassociated from worldly activities. The fact that such a person is contented and without any defilements does not mean that they will not be involved in any activities. In fact, it is just the opposite and such a person will be able to help more of the suffering ones by giving them *pañña*. The closer a person is to the state of *arahanta*, the more that person will be able to contribute to the pained or suffering ones. A person can in fact perform the roles of a human being most efficiently in this state. It is because the ability to be without all defilements will increase the person's ability to help others more.

For the reasons discussed, increasing the development of *pañña* through the *sikkhattaya* or the three fold training has its ultimate goal in the absolute happiness of *nibbana*. The main difference between Buddhist Economics and the mainstream economics is that mainstream economics explains that pleasure can be gained from consumption. Buddhist economics shows that happiness can be gained more from the development of *pañña* resulting from the threefold training and this does not require unnecessary consumption. Pleasure derived from consumption is not the way to solve the problem of *dukkha*. It will in fact stimulate more cravings and stimulate them to higher levels in the next round resulting in endless attempts to satisfy such spiral cravings.

It can be clearly understood at this point that production in Buddhist Economics focuses on *pañña* as the mode of production. Consumption is only been necessary for physiological needs. Consumption is not to satisfy cravings that are always unsaturated. In this way a human being can achieve peace and tranquility in life without much impact on nature and the environment. With this method of thinking and practice, the economic system can be sustained while human beings can also attain ultimate happiness consisting of clean, calm and clear minds, the ultimate state of the mind called *nibbana*.

The next issue to be considered in this chapter is the fallacy of the concept of "utility" first introduced by Democritus who explained that the value of anything does not only come from its utilization. The concept was further explained by Thomas Hobbes who claimed that the goal of human life was to seek maximum pleasure and to avoid pain. The concept was additionally developed by Jeremy Bentham who put forward the idea of a social welfare policy using the concept of maximum utility for the great majority of people. Most mainstream economists are not actually interested in the true meaning of utility. They use the concept more as the tool to analyze the market mechanism. Utility is treated as a background factor behind the demand function. The main purpose is to raise the scientific status of economics. There is no need to mention the word utility in Buddhist economics. The more important word is *attha* or the usefulness of any specific thing, also known as utilization. Utility results from human imagination for anything beyond its actual utilization. Such imagination is the result of defilements caused by an inability to understand everything in its own nature. Utilization or usefulness serves only as a means to efficient consumption or sufficiency. It is the way to consume the minimum level of resources while the goal of *nibbana* can be achieved at the same time.

The distribution theory in Buddhist Economics focuses on common well-being for all living things. The distribution according to the marginal productivity of each factor of production is merely designed to comply with the concept of justice developed in the West, rooted in Christianity. However such justice (if marginal productivity can in fact be accurately measured) only implies that the stronger ones deserve to have more. The weaker ones must be eliminated naturally. Such thinking does not conform to Buddhism, neither it conform to the real intention in Christianity. From the stand point of Buddhist Economics, distribution should be carried out in such a way to help all living things still suffering in order to relieve that situation. There is no need to consider the concept of justice explained in the mainstream economics.

The remaining three theories are the theory of time use, the theory of economizing, and the theory of work satisfaction. The theory of time use is appealing because time is one important resource available for all, almost equally each day. The question is how to make use of the available time to be most useful for a person as well as all other living things. The way Buddha used his time in his life for his own benefit, and the benefit of the rest of living things should be the most valuable lesson for all to follow.

The theory of economizing does not focus on the utilization of resources for maximum usage or for income generation in the future. The concept of economizing is very close to that of Puritan ethics especially during the early settlement of the United Stated of America. It has nothing to do with being stingy but rather to conserve resources for all others to be able to use. It is a matter of valuing resources, loving, kindness, sharing, and caring.

The last one is the theory of work satisfaction. This theory will change the attitude inherited from the West that work is a necessary evil to the new perception of a person's natural duty or responsibility. The purpose for advancing this theory is to help a person to be content with one's work. The person will gain satisfaction from work and having a good attitude towards work. This way the meaning of work as understood in the West since the industrial revolution will be changed. Work can be considered as something desirable contributing to well being.

After that, all the said theories will be used to apply to other economic subjects. In this book, they will be applied to the real economy sectors only. The theories developed in chapters ten and eleven are more suitable to the application to the real sector economy than finance and international economics. Before doing that, it requires a firmer foundation and a more complete development of Buddhist Economics. The real sector economy to be further discussed is development economics, human resource economics, and economics of natural resources and the environment. All these subjects are directly relevant to human beings and are therefore appropriate to be considered by Buddhist economics.

Chapter twelve will discuss development economics beginning with the definition of development resulted from the cold war, soon as the hot war of the WWII ended. Development theory in mainstream economics equates economic development with economic growth. It begins from the theory of growth by Harrod and Domar followed by that of Solow. After that Schultz and Gary Becker includes human capital and human resources in the growth theory. However, human capital was systematically not included as another factor of production. It was not until the end of the 1980's that Romer introduced the concept of accumulation of human capital as a systematic factor of production. There was further development of this theory by Lucas in 1993 in order to use the theory to explain the so-called economic miracle of East-Asian. Lucas explained that the East-Asian economic miracle was due to the accumulation of human capital through learning-by-doing while export markets were also available for these countries. The progress in the development of growth theory in the mainstream economics had been rather slow. The main problem apart from the popularity of the two books in the 1970's, namely "Limits to Growth" by Meadows and Meadows in 1972 and "Small is Beautiful" by Schumacher, was that the mainstream economists had to develop their theories in the form of mathematical models in order to ensure the "scientific" nature of their models. They must also look for definite answers through the test of the convergence property, resulting in the delay of the theoretical development as the mathematical part becomes more complex. Nevertheless their model has gone one step beyond their original production function discussed in chapter ten.

The next theory of economic development to be introduced is the one proposed in real-life economics. This stream of economics shares some common views with Buddhist Economics in that it reflects human nature more realistically. Unfortunately, the missing piece in this stream of economics is *paññā*. This stream of economics is built on humanistic economics developed in the West which is under the influence of capitalism. The factors of production in real-life economics consist of various forms of capital ranging from human capital, physical capital (or capital in its conventional meaning), social capital and environmental capital. The salient point of this stream of economics is to point out that utility does not always derive from consumption, since working, living in a good environment and participating in social activities all result in utility generation. As a result, to improve a human and kindness will also result in

well being without unnecessary focusing on consumption only. This way it can contribute to rescuing mainstream economics from the narrow sense of consumption being the only source of utility. This way, other useful activities can generate utility as well.

Another theory introduced in this chapter is the one of the futurist, Hazel Henderson. She suggested that we must find a way to create a win-win world, with greater emphasis on sustainability. Such a future could be realistic since there was a systematic development of interest in a human nature. Such development grew from self-interest to family's interest, to peer and group interest, to community and social interest, and would further develop to national interest and world interest. The last level of interest was the interest on all living things on earth. This last point is the point in common with *Buddha Dhamma*. Everyone is able to be developed to this level through a person's *pañña*. Unfortunately Henderson did not elaborate on how self-interest can finally be developed into the interest of all living things on earth. Again, the missing part in this argument is *pañña*.

In the last part of chapter twelve, King Bhumibol's concept of sufficiency economy has been introduced as a development theory rooted in Buddhist Economies.

Chapter thirteen, first studies human resource economics based on mainstream economics. This line of thought began from how to generate added value from human activities. The discussion ranges from the economics of family and children, through the economics of education, health economics, labor economics, economics of migration, and economics of population. The economics of family and children tries to explain family size and a family's investment in raising children and providing education for them from the point of views of mainstream economics.

Economics of education is considered to be the most important area of human resource economics. The main analytical tools for economics of education are related to supply and demand. Economics of education normally analyzes the conditions for the demand for educational investment, basically through cost/benefit analysis for different levels of education. The benefits normally include both private and social ones. The findings of each form of benefit will determine which part should be for private investment and which one should be for social investment. The analytical method is to calculate the internal rate of return in such a way that the net present value of costs and benefits is equal to zero. This internal rate of return will then be compared with the existing rate of interest in order to find out if investment in education is worthwhile, the internal rate of return should be greater than the rate of interest.

The goal of such analysis is to determine which level of education should be invested in by the government and which one should be done by individuals. Normally, lower levels of education provide higher levels of social return but a low level of private return. Such levels of education should be invested by the state. Higher levels of education benefit those individuals who have had previous education more. Such individuals should pay more for their own education.

The goal of human beings in economic activities is usually related to the acquisition of economic wealth. Even investment in education with the aim to increase productivity will finally lead to more wealth. This approach is much different from Buddhist Economics where the only form of relevant education is the three-fold training with the ultimate goal to increase *pañña*. *Pañña* can actually result in well-being or happiness in life, in the most direct way. Economics of education concerns more the raising of productivity in order to increase production that will lead to more consumption. Unfortunately more consumption cannot assure well-being. With this educational detour, apart from wasting time, the ultimate output of well-being cannot actually be guaranteed. The ones who have *pañña* apart from being able to also help other persons achieve well-being can also help relieve all other living things from *dukkha*.

Health economics also starts from the supply and demand of health services. Good health will lead to being strong physically. More work can be accomplished and more days of work are possible without being interrupted by sickness. Those who are in good health but do not work, these persons will be considered as ones who directly consume their own good health. Therefore investment in health if not for direct consumption, it would be for generating more economic wealth. On the other hand, Buddhist Economics generally considers good physical health as a basic foundation for mental health. Good mental health will

lead to *paññā* and that will directly lead to good life or well-being. Using the argument on good health in mainstream economics is again a round about way. It begins by first trying to be physically healthy, in order to be able to work more and thereby have more income and finally more consumption. This way, the end result cannot be guaranteed whether the end result will be a good life or well-being.

In mainstream economics working is normally considered as an activity that creates disutility. Thus, those who work must be paid for their efforts. They earn their income from their wages. This part is the issue discussed in labor economics, especially on the part of labor supply. The demand for labor already has its theory of a derived demand from the marginal productivity of labor, in the case that the business that employs the worker is not a monopolistic one. However, if workers must face the situation that the producer has monopolistic power, they must react through collective bargaining in order to increase their bargaining power. It may be necessary for them to be able to organize in the form of trade union. These are the main contents in labor economics.

In Buddhist Economics, working is the practice of *dhamma*. Working does not necessarily result in conflict, or contradiction or *dukkha*, since it is a normal, natural duty or responsibility of a person. To work with happiness is a matter of changing one's attitude towards work. Some kinds of work may actually be very harsh. Fortunately, the cost for consumption in order to have healthy body that will lead to healthy mind does not have to be very high. This fact will help improve the bargaining power of that person who is in harsh working conditions. The person can actually accept less pay for better working conditions.

For the economics of immigration, mainstream economics considers that if an out-migration is done through some kind of selection process, it will provide good opportunity for the out-migrants to increase their standard of living, such out-migration should be encouraged. In Buddhist Economics, traveling with the clear intention of gaining more experience and understanding and exchanging knowledge with the others is part of the process of the accumulation of *paññā*. A person who has *paññā*, apart from being able to help oneself, can also contribute to many others.

In the economics of population, mainstream economics tries to find the optimal population size that will result in the maximum income per capita. In reality, if such a point can be identified, it is still doubtful that it can actually be implemented, because it requires a long term adjustment. In Buddhist Economics, the size of the population is not a problem so long as it does not result in *dukkha*.

Having explored overall issues in human resource economics and those of Buddhist Economics, the emphasis of mainstream economics is basically on wealth generation and accumulation, while Buddhist Economics focuses on accumulation of *paññā*. The accumulation of *paññā* is the most direct route to the well-being of the persons involved. It can also help relieve others from *dukkha* in the process. Accumulation of wealth through education, good health and/or migration can be a very long detour. In the end, accumulation of more wealth does not guarantee well-being.

Chapter fourteen discusses the economics of natural resources and the environment. The subject focuses on sustainability of resources and the environment together with sustainable development. The unsustainability of resources is caused by rapid depletion of non-renewable resources such as minerals and fossil fuels. This is especially a problem as fossil fuels are currently the major source of energy. There is a real necessity to understand that using these non-renewable resources does in fact deplete them; when they are gone, they are gone. As for how long the environment can serve humanity, it depends very much on the ecological system. If the balance of the ecological system is shifted in such a way that it cannot be readjusted to its original position, the environment will be no longer be supportive of human life. The necessity for consideration the concept of sustainable development is because of the emphasis of mainstream economics on efficiency in production as well as maximizing on individual utility and social welfare.

From the point of view of mainstream economics, it is implied that the world's resources are relative scarce. Anything can be turned into a resource when a human being can have access and be able to use it in a production process. Given this definition, some resources that become scarce result in increasing the cost of production. This situation will induce the development of new technology to improve the productivity of existing resources in order to reduce the production cost. Perhaps there may be some

development of new technology such that a new material can be used to substitute for the existing resource. It is evident in this case that technology is the most important factor in solving the problem of absolute scarcity of resources and turns the problem into of relative scarcity of resources instead.

This explanation was strongly opposed by Georgescu-Regen and Daly. The two quoted the physical law of thermodynamics, especially the law of entropy. This law explains that both matter and energy when being transformed from their original state, there will be only one direction of change, namely, from lower to higher entropy. Matter and energy at low entropy can be useful for human beings. As they are transformed to higher levels of entropy, they become less useful or become more harmful to human beings. This process results in the absolute limitations to be found within a closed system. However, the earth that we are living on is an open ended system in that it has a renewable supply of solar energy. It can be called exergy. It can help reduce the situation of absolute limitations.

In the final analysis, solar energy still can be a hope for future sustainable development. As the way to use resources and environment will affect the ability to use them in the future, that will affect people in many generations, so their benefits must also be taken into consideration. This form of inclusion must be resolved through ethics. In the West, there are two forms of ethics, naturalism and humanism. Humanist ethics has been further sub-divided into utilitarianism and liberalism. Utilitarianism normally focuses on benefits to the society while liberalism will protect individual's rights that may be infringed on by a community, a society, or even the state. This is the origination of the concept of economic liberalism. Humanist ethics focusing on liberalism can actually lead to inefficient use of resources. They could result in unsustainable development.

Although the sustainability of resources and the environment may be limited by the law of thermodynamics discussed earlier, there is also another limitation caused by an economic factor. That is the absence of a market for compensation. This absence results from either the ignorance of those who are negatively impacted by negative environmental externalities or the fact that the costs to protect their rights or to launch their claims are too high in comparison with the damage that should be compensated for their loss. This issue leads to further discussion of property rights. There are four forms of property rights: open access, public property, common property and private property. Common property is the most efficient form of property rights in terms of resource utilization. The others will result in less efficient use of resources.

From the stand point of Buddhist Economics, sustainability of resources is not a real issue, because Buddhist Economics always stresses impermanence. The thing that should receive close attention is making the best use of all existing resources. It also focuses on activities that result in not being a burden on one's self or any other living thing. If Western ethics is used for comparison in this case, Buddhist ethics will be close to naturalism of the strand of deep ecology. At the same time personal freedom is also important. However, it must be the freedom to strive to freedom from cravings and all other defilements. This situation will give rise to human beings doing only good things and developing their consciousness with *paññā*, so that they can do useful things for themselves as well as the whole society. This latter part is the goal of utilitarianism. It is the way to combine the ethics of naturalism and humanism in a more elegant way than each is explained in Western ethics. This way there is no need to discuss technological progress, the law of entropy and the missing market for compensation or even different forms of property ownership that may result in inefficiency. All of the said western concepts lean heavily on individual benefits versus long term common benefits. However, if the focus is only on long term mutual interest without any consideration of personal interest, and if everything is allowed to be changed accordingly to the law of impermanence, natural resources, and the contribution of humankind will continue on a factual basis. It will conform to the law of *tilakkhana*, the three characteristics of everything. Every generation of human beings can exist in harmony with nature with happiness.

Chapter fifteen is an attempt to apply *Buddha Dhamma* to the rest of the economic subjects for more general coverage. At the same time, it will lead to some deficiencies that require more study. The firm foundation of Buddhist Economics must first be established within the subject itself. There is also a strong need for a clear understanding of the techniques and analytical mechanisms of respective economics before

any further attempts are made to relate them to Buddhist Economics. Meanwhile, there should be some efforts to apply general principles of *Buddha Dhamma* or Buddhist Economics to the remaining economic subjects, especially those related to various forms of production such as agricultural economics, industrial economics, and the economics of transportation. The other areas will include monetary theories, finance, and international trade etc.

The principle of economic self-reliance can be applied to production activities whose transaction costs are too high, or where individuals have low bargaining power. An example is farmers all over the world with a small amount of land. The proposal of King Bhumibol, especially his New Theory, is an outstanding example of the possibilities here. This theory emphasizes self-reliance for small land holders, at least during the period of beginning is an example of how to apply the principle of self-reliance in development. If this problem is considered to be one of the major global problems since a majority of the world's population is still small land holders, it is a problem that mainstream agricultural economics completely fails to address.

Carefulness or *appamada* is a *dhamma* for heedfulness, diligence, earnestness, readiness. The part that should be applied to economics is avoiding unnecessary risk. The economic crisis in Thailand in 1997 was result of risk loving activities of Thai investors. The incentive for taking high risks was high returns. If one follows *Buddha Dhamma*, one should refrain from risk loving behavior. Greed is not a good attitude either and without greed there is no need to take high risk. Taking low risk or moderate risk is part of an act of carefulness. This concept can be used in almost all areas of economics whether it is production, trade, money, or banking. It is one of the principles in *dhamma* that can be generally applied.

Ahimsa or non-violence is the *dhamma* that will lead to compassion, loving and kindness, refraining from taking the advantage of the others, or using pressure and other violent means. If this *dhamma* is applied to economics, it implies that a country should not be involved in arms trade or in war as a means of solving the immediate problem of unemployment within the country. Another form of violent acts is competition. Mainstream economics always explains that competition is healthy because it will lead to increases in productivity. Unfortunately, the prime motivation for competition is greed and self-interest mostly for the short run. Increases in productivity are not necessarily achieved only from competition. They can be achieved through cooperation as well. For example, activities of religious organizations and voluntary agencies foster cooperation among individuals who own common property and the economic activities do not lead to personal interest but rater a common goal. All of these activities normally result from cooperation with high productivity.

Sammaajiva, or right livelihood, is a *dhamma* for all economic activities that are supportive of humanity. It can be extended to cover production, non-production, consumption, and non-consumption of things that are not useful for human beings. The one that can be directly applicable to economic activities are mass production and mass consumption. In mass production, division of labor is necessary; much will be done through automation. The jobs that a machine still cannot effectively perform will be left for human beings. In this way, human beings involved will effectively be turned into parts of a machine. They have to do repeated work under time pressure so that things can move in the same rhythm as the machine. This way of doing things is a degradation of the humanity of individuals. The only goal of such massive production is for mass consumption. The implication of mass consumption is actually a mass destruction of resources. It is therefore most appropriate to introduce this concept of right livelihood to industrial economics.

Not to burden one's self as well not being a burden to others is one of the core *dhammas* in order to live one's life along the middle way, aiming at peace and tranquility for an individual and society with appropriate advancement in a worldly life. This is the principle to one important economic concept. Instead of always aiming for the point of extremes, maximization or minimization, the focus must be at the point of optimality for the society. This concept can be applied to all economic subjects that aim mainly at the extreme points. In reality, the extremity, no one will be the real winner. Some persons may gain or win initially but all will lose in the end.

Avoiding cravings and greed are the way to release a person from *avijja* or ignorance. Instead of trying to attain self-interest while others must end up as losers, it should be a win-win situation. Controlled by cravings and greed, transnational corporations normally seek to influence politics for their own economic gain. Such actions can be countered by countries developing self-immune systems and this is particularly important for most small economies in the global economy. They can actually withstand destructive influences of transnational corporations. The case in point is the King's Sufficiency Economy that emphasizes not being too greedy as a way to attain a peaceful life.

Honesty and *hiri-ottappa* (conscience and concern - moral shame and moral fear) imply conducting all activities with good intentions. Major benefits from practicing this concept in Buddhist Economics are to be able to reduce transaction costs through more trust. With trust, unnecessary costs such as the costs for contracts, rules and regulations and policing can be avoided. Honesty and trust are usually social capital for economic activities in a market system. The reason for neglecting this important concept in mainstream economics is because of the consideration that utility can only be gained from "having". However, if it can also be understood that "being" "doing" and "relating to" are also activities for welfare generation, human behavior can be changed from always trying to "have" without any consideration of more honest and *hiri-ottappa* behaviors.

In conclusion, all of the issues introduced in this chapter only aim to stimulate more studies in order to apply Buddhist Economics to all areas of economic behavior. The main purpose is to improve some deficiencies or ignorance within the body of these subjects. The end result will be new economic subjects that will be more useful for human beings now as well as in the future.

Chapter sixteen is the epilogue to remind economists to search for the ways to improve the subjects of economics in this new direction of Buddhist Economics. It has been evident throughout the economic history discussed in this book, since the beginning (800 B.C.), that the most influential force in society is the economic force. It is the force that contributes to degeneration of human life as it always stimulates greed that comes with new technology and with the promise that humankind will find new meaning in life.

This promise has never materialized. The failure to understand the meaning of technology and progress is due to the ignorance accumulated within each of us. Such ignorance is due to the fact that human *paññā* has been shielded by various illusions created by human beings themselves. These illusions result in human degradation in the end. The best solution is for human beings to develop their clear mind against all of the illusions. Buddhist Economics can be instrumental in changing the course of human history that would normally lead to self-destruction to a new direction where human beings can reach a more happy life. They will be able to develop their minds to higher levels and able to contribute more to humanity as well as other living things.

Chapter 9
Understanding Human Beings Through a Buddhist Way

The Weakness of Humanistic economics

Humanistic economics considers the human being as a center of economic activities. Sismondi pointed out that property or wealth would be useless if it did not result in happiness for everyone, namely, everyone should have sufficient food, clothing, and a place to live with assurance that the future of each one would not be worse off. Ruskin suggested that commodities would be useful only when they serve to sustain lives, while production would be useful when it served to enhance human creativity. Production in a factory process only results in dehumanization. It reduces human work to that of a machine. Humanistic economics can also be explained from the analysis of the psychological development model of Maslow, in terms of a hierarchy of needs. This hierarchy begins with physiological needs and progresses through the hierarchy of biological needs, safety, belonging, self-esteem and self-actualization. The highest level implies understanding of the meaning in life, aesthetics and a universal love for humanity and all things. All five levels of mental development can actually be divided into three parts, starting from material needs to social needs and the last and the highest level is moral needs.

It can be seen that this stream of economics reflects human nature as much closer to its reality, than the two other streams developed in the West (mainstream and the opposing stream of Marxian Economics). The mainstream assumes that human beings are rational and the opposing stream assumes that human beings are irrational. Nevertheless, one major weakness still remains in Humanistic economics in that it cannot explain the factors that will enhance the mental development of a person through the range of material needs to social needs and the moral needs or self-actualization. This weakness is due to the method of "scientific" observation rooted in Western civilization. Western psychology studies the evolution of the human mind through *observation* of human behavior as a reflection of such development. A study through observation of external objects as well as behavior of other human beings and living things is the strength in acquisition of knowledge developed from the West.

Unfortunately, applying the same method to study human psychology can also be a weakness. This method of enquiry cannot explain systematically how such mental evolution can be made possible.

It cannot explain contributive factors for such evolution. The missing part of such analytical method is *the lack of an analytical tool for an internal systematic analysis of the mind.* The Buddhist method of analysis focuses directly on this issue, and results in a more complete understanding of human nature. As a result, this approach is able to explain various conditions for mental development according to various levels of needs, or the hierarchy of values attributed to various level of mental development observed from personal experience together with the visible empirical evidence. This approach, using its analytical tool together with personal experience, will also lead to clear reasons for the mental development. This way of analysis will lead to clear directions for improving the mental level to a higher level of value or needs, through actual understanding of the person who is ready to transcend to a higher level of mental development.

The economic implication of mental development is enormous. The higher a human mind has been developed, the less it will be a burden to itself and the less it needs to exploit or burden other people or the environment. At the same time the ability has increased to contribute to one's own future development and the development of others, the society and environment. This leads to a world with more peaceful harmony. This is a process of social synergy. It is, therefore, the best example of global economic efficiency. Under this scenario, natural resources will be utilized at the minimum. It can at the same time, in fact, improve the quantity and quality of resources and environment, when every member or at least the majority of members of the society understands the true meaning and the real evolution of life. They can

live in peace and tranquility, understood in Buddhism as achieving the stage of a Buddha, the known, awaken and the enlighten one. This stage of mental development is the concept of true happiness that can be achieved by almost everyone, when the person is not being blinded by ignorance.

This explanation is vastly different from anything in existing mainstream economics. Mainstream economics degenerated to the point of ignorance, since it only understands a human being from a narrow perspective: only as a consumer. Such a narrow understanding results in utilization of resources and environment in a devastating way. Such unwise ways of doing the things mentioned above only aims to produce more materials to satisfy insatiable human desires. The damage caused is especially bad with the ones with more purchasing power but with inadequate mental development. That actions precipitated by mainstream economics will only lead to social disorder caused by rapid disappearance of resources and rapid deterioration of the environment. As everyone is competing for more material things, such competition will turn into devastation, causing social paralysis. The whole process leads to human destruction in the end. All of these are resulting from *micchaditthi* or incorrect theory. That theory stresses production of more materials in order to satisfy the insatiable human desires, with the incorrect understanding that after being satisfied by more material consumption, human beings will be happier and the society as a whole will also be better off. In order to have everything operating under the guise of "efficiency", competition must be encouraged. And in order to improve efficiency in competition, a free market system must be encouraged. In the end, such actions only lead to complete destruction of most valuable resources as well as an environment that will be conducive to human life. The happiness anticipated from more consumption or material acquisition does not result in true happiness. In fact, it will stimulate cravings without end. The root cause for all of these chain reactions is the failure to understand the true nature of human beings. This economics would be more appropriately called autistic economics. Therefore, the knowledge developed from partial truth or ignorance will, in the end, result in alienation from the real human nature. If such incomplete knowledge cannot be stopped in time, the end result will be the self destruction of humankind.

For the reasons explained above, an understanding that human nature is the core value of economics is essential and Humanistic economics has already paved the way. Humanistic economics already systematically explains human nature from an external analysis of a human being. Buddha discovered and explained the functioning of the human mind more than 2500 years ago. It is now time to rediscover the significance of his teachings.

Diamond and the Tool to Search for It in the *Tepitaka*

For Theravada Buddhism, Buddhadasa (Buddhadasa; 1998) clearly defined the issue on the *tepitaka* as the collection of the teachings of Buddha. He explained that it consisted of the *vinaya*, the code of monastic discipline, the *sutta*, discourses or dialogues of Buddha, and the *abhidhamma*, the higher, analytical doctrine of the Buddhist Cannon. All of them together consisted of more than 24 million characters (Computer Center, Mahidol University, 1998:1). All of these teachings could be searched for the diamond in the *tepitaka* by the tool explained in the one *sutta* known as the *Kalama Sutta*. It is the analytical tool for a person to understand and to become aware on one's own. This phrase has a very important meaning. The word "Buddha" actually means the one who becomes enlightened on one's own. As Buddha himself achieved enlightenment on his own, he insisted that his followers who heard his teachings must be able to understand clearly or become enlightened on their own. When a person comes to an understanding of knowledge based on their own experience, it is a knowledge that they can trust. Therefore, to be a Buddhist does not mean the one who has faith in the teaching of Buddha but the one who actualizes the concept on one's own. This nature of understanding is the significance of *Kalama Sutta* and, as such is a very important analytical tool in the search for the diamond or the core teaching of Buddha. The *sutra* is explained as follow:

At one time, Buddha arrived at *Kesputtanikom*, a community of *Kalama* in the state of Kosol. The people of *Kalama* had heard of his reputation before. They went for his audience, but without due respect because they did not meet him before. They began by asking him the following set of questions.

"The most venerable one, a group of Brahmans came to Kesaputtanikom. They explained their dogma in the way to substantiate it and looked down or belittled the teaching or dogma of other groups. Then other groups came to Kesaputtanikom. They also talked highly about their own and belittled the others. We are all in doubt whether any group of the Brahmans tell us the truth or lie?"

"Kalama people, you ought to be doubtful. Your doubt must be clarified by the following":

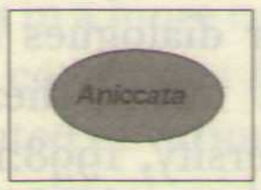
- Do not believe by listening (learning) from the others as it has been told from ones to the others
- Do not believe by traditional practices from many generations.
- Do not believe by hearing from rumors or hearsays
- Do not believe by referring to any text books
- Do not believe because it is logical
- Do not believe because it is an induction.
- Do not believe through your own critical analysis
- Do not believe because it is consistent with your own theory
- Do not believe because it looked convincing
- Do not believe because the venerable one is your teacher

"Anytime you know on your own that the dhamma (the nature of thing) is not good, the practice of it causes undesirable result, it receives criticism from most people, when being practiced by you, it will not be for better usefulness or improvement. It only leads you to dukkha. Such dhamma should be abandoned. Anytime that you know on your own that the dhamma is a good one, it has no bad result, it is the one that most people adore, this dhamma, when being practiced, it will be for better usefulness or improvement. It only leads you to sukkha. Such dhamma should be practiced by you." (Dhammapitaka, 1995:650-651)

This *sutta* is considered as the most important tool for searching for the most valuable teaching of Buddha that is the diamond or the core of His teaching. Given the said tool, it is not necessary to listen to everything directly from the Buddha himself. With this tool, one will be able to find the valuable truth from his teaching by one's self, or to find the answer on one's own the same way as Buddha did more than 2,500 years ago.

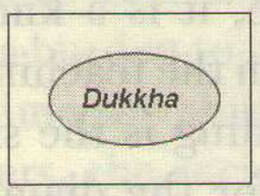
The diamond in *Buddha Dhamma* implied by Buddhadasa is *aniccata*. Everything in this world is impermanent. The teaching of impermanence is the diamond in the *tepitaka*. It is the core factor for a human being to start to understand the true nature of everything on this earth. This law of impermanence can be considered singly as the most important natural law. If one understands this law clearly, it will eventually lead the person to be without *dukkha* or pain and to achieve *sukkha* or peace and tranquility without much difficulty. It can be explained in a causal relationship shown in the diagram below.

Graphic 2
The Relationship of *Aniccata, Dukkha, and Sukha*



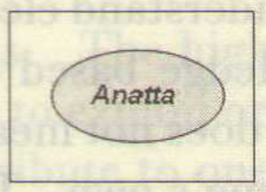
Everything in the world is impermanent. Things are changing all the time.
This includes all of the things that each person holds on to as his/her own self, also called ***atta.***

Holding on to ***atta*** causes conflict with nature against the law of aniccata. The results are problems, conflicts, pressure, unhappiness, and all kinds of troubles also called



The cause of dukkha is attachment to atta. Such holding on would breed kilesa, which leads to all kinds of mental defilements leading to anxiety resulted from lobha or greed and self-centeredness. Dosa or anger, hatred, and negative thoughts toward others and moha or ignorance and state of being misled.

The acceptance of the law of ***aniccata*** means That one does not hold on to self also called



The non-self or ***anatta*** means the appropriate understanding of the law of ***aniccata*** and also living according to this natural law. Such practice would lead to no conflicts against the natural state Which is the cause of pressure, unhappiness, and troubles, also called ***dukkha.***

As no ***atta*** exists, no ***kilesa*** also exists. It is *kilesa* that cause the defilements in the human mind, caused by *lobha* or greedy and self-centerness, *dosa* or anger, hatred, and negative thoughts towards others, and ***moha*** or ignorance and state of being misled. Without ***kilesa*** comprised of ***lobha***, ***dosa***, and ***moha***, there would be no ***dukkha.***

Without ***dukkha***, there would be only happiness, which is the state of free and uplifting spirit, the most desirable condition by all animals on this planet, especially human-beings.

It could be explained as this simple form of reasoning.

Accepting	***Aniccata***	Not Accepting	***Aniccata***
⇩		⇩	
Without	***Atta***	Holding on to	***Atta***
⇩		⇩	
Without	***Kilesa***	Causing	***Kilesa***
⇩		⇩	
With no	***Lobha, Dosa, Moha***	Breeding	***Lobha, Dosa, Moha***
⇩		⇩	
With no	***Dukka***	Causing	***Dukka***
⇩			
Resulting in	***Sukha***		

From the diagram above, it can be seen that the understanding of *aniccata* and the acceptance of *aniccata,* which is a law of nature, will eventually lead to peace and tranquility. If the law of *aniccata* is not accepted, it will lead to conflict with reality resulting in *dukkha*. The causal relationship explained in the diagram above can be simply and clearly understood. It is up to each individual to decide and to follow the direction for their own practical purpose. The final decision of each individual will depend on the *pañña* of each one toward the achievement of enlightenment on one's own. In other words, it is a personal mental development from the stage of a human being to that of a "Buddha". The most important tool for such enlightenment is the *Kalama Sutta.* From the above diagram it can be clearly understood that the diamond in the teaching of Buddha is *aniccata* only.

This type of happiness or *sukkha* is not the one commonly understood in the West. Happiness understood in the West is from pleasure or hedonism. It is a pleasure from acquisition or sense pleasures. Such level of happiness is equivalent to the concept of *samissukha.* It is *sukha* that must rely on the acquisition of things, also known as *kamasukha*, worldly pleasure or happiness arising from acquisition. The higher level of happiness explained in Buddha Dhamma is *niramissukha*. It is happiness that does not require any acquisition. It is the condition of the more purified mind resulting from giving or contributing such as giving friendship or *metta*, or helping others from *dukkha* or *karuna*, happiness from having a calm mind or having *samadhi*, happiness from being surrounded by natural beauty or *suppaya*. It is a mental condition of emancipation of the mind from all defilements or to understand everything at its own nature that covers the concept of *jhana sukha* or the stage of happiness from meditation or serene contemplations attained by meditation, including *nibbana sukha*, happiness from the stage of *nibbana* (Dhammapitaka, 1995, 555-565).

As Western economics only understands one level of happiness, namely, *kamasukha* or happiness from consumption or acquisition or sensual pleasures, this level of happiness is still in the realm of *dukkha*. It is a common problem in a contemporary world and is result of racing for more material consumption beyond

physiological needs. After *kamasukha*, a person may be able to move up to *niramissukha*, happiness without any material acquisition. This level of happiness includes *jhana sukha* and *nibbana sukha* as well.

Jhana sukha means happiness at a more elaborate level that is deeper than *kamasukha*. It is happiness from meditation. There are four levels of *jhana* dealing with form. At the first level of *jhana*, there are *vitakka*, initial thought, *vicara*, discursive thinking, *piti* or joy, *sukha* and *ekaggata* or one-pointedness of mind or concentration. At the second level of *jhana vitakka* and *vicara* will be removed, and only *piti*, *sukha*, and *ekaggata* remain. At the *jhana* of the third level, *piti* will be removed leaving only *sukha* and *ekaggata*. At the forth level of *jhana*, *sukha* will also be removed and then only *ekaggata* with *upekkha* or neutrality remains. At this level, the mind will be ready to understand everything in its own nature and the mind will be ready for concentration. The mind will be clean and calm. After the forth *jhana*, there are four other levels of the *jhana*, known as *arupajhana* or the formless sphere. A person will be in realm of non-existence of "self". The rest will be similar as the first four order of *jhana* (Dhammapitaka, 1995:545). For a simple understanding, without actually having been through such an experience, it is peace and tranquility resulting from relaxation but with concentration, without any need for any form of consumption. This kind of happiness (even explained by the mainstream economics) is more efficient than *kamasukha*, because it is *sukha* that does not require any consumption. Therefore, there is no cost involved. It is the kind of happiness resulting from a calm, relaxed but concentrated mind. It can be achieved without much difficulty through regular training and practice. Such activities do not require any resources at all.

Although *jhana sukha* is much deeper and more elaborate and more efficient than *kamasukha* in terms of resources used, it is still only *niramissukha* or happiness without any desire for acquisition. Unfortunately, it can also be obstacle for improvement of the mind to the highest level of *nibbana sukha*, the happiness from complete emancipation of the mind from all defilements, even the most elaborated ones, (completely free from *vedana* or feeling). (Dhammapitaka, 1995:547)

Nibbana sukha is the condition of complete elimination of *dukkha* and *sukha*. *Nibbana* is a specific condition of the mind consisting of a *clean mind* that is free from all wrong doing resulting from the practice of *sila*, a *calm mind* resulting from the development of a usual routine of concentration with *samadhi*, and a *clear mind*, ready to understand everything in its own nature resulting from *pañña*. These three qualities of the mind are the happiness resulting from the condition of *nibbana*, originated from *sila, samadhi* and *pañña*. All of these tools used for the training of the mind must be interdependent and working together at the same time, all the time. Those who do not practice *sila* will hardly be able to develop *samadhi* and *pañña* to a higher level. Those who practice *sila* and *samadhi* but with insufficient level of *pañña* can develop false practice and false beliefs. Those who practice *sila* but without the practice of *samadhi* or *pañña,* the quality of their mind will hardly allow the emergence of the ability to understand everything in its own nature. Therefore the three, namely *sila*, *samadhi*, and *pañña*, all must work together. None of them can be missing.

In conclusion, the core teaching in *Buddha Dhamma* is *aniccata*, and the tool to find out this key concept is the *Kalama Sutta*. As soon as *aniccata* is clearly understood (for the reasons discussed before), *Buddha Dhamma* encourages regular practice that will finally yield the anticipated result. There is no need to ask or pray for something super natural as it depends only on the logistics of practical sequences. The most important method of practice is *samatha*, the training of the mind to be calm in order for it to be able to concentrate, and *vipassana* (contemplation or insight development) will be the result. After the mind is able to concentrate it will be more ready for insight development (the development of a clear mind), a necessary and sufficient condition for the emergence of *pañña*. With a very clear mind, true understanding will emerge. Holding fast to something unreal or untrue in the past will be removed. There will be a significant change in attitude toward life and the world (Dhammapitaka, 1995:305-306). The main purpose of *vipassana* is to understand clearly the concept of *aniccata*. With the clear understanding of *aniccata* through *vipassana* or insight development, the stage of *nibbana* will be possible to reach. To reach *nibbana* can only be accomplished through a series of practices, not through logical deduction. Such practice will accumulate knowledge from experiences resulting in true understanding at every step of the

practice. Without such efforts to remove incorrect thinking and the practice of holding on fast to something unreal in the past, it will not be possible to get to the point of changing one's attitude toward life and the world. The method that will lead to such a desirable result is *samatha* and *vipassana*.

Therefore, it is true that human nature seeks happiness. However, the kind of happiness that it seeks is not simply *kamasukha* or hedonism, as understood in the West. It is the happiness from being free from all conflicts or conditions (*dukkha)*. This level of happiness also exists in the teaching of Judaism and Christianity rooted in Western culture and civilization. Unfortunately, the concept has gradually disappeared since the era of Newtonian mechanics in the 17th century. The new belief was developed into the Age of Enlightenment during the 18th and 19th centuries. Progress was considered as a sign to approach God. It eventually replaced God. In the area of economic thought, the deterioration of morality began with Alfred Marshall (1842-1924), when a human being came to be identified as an economic man (*homo economicus*) and self-interest was defined as rational behavior in individuals. As happiness from *niramissukha* or happiness from non-acquisition was removed from economics, the only source of happiness remaining was *kamasukha* or happiness from acquisition. This marks the beginning of the current human catastrophe.

Returning to the study of *Buddha Dhamma* is an attempt to fully re-understand human nature. It can be understood quite easily from a series of trainings together at the existing level of *paññā* prevailing in each individual. The combination of the two can enable a human being to be free from all defilements while still living on earth. A human being does not need to wait for a return to the Kingdom of God as explained in both Judaism and Christianity that share a common cultural root. A comparable concept to God in the West is the three trainings of *sila*, *samadhi*, and *paññā* in *Buddha Dhamma*.

Of the three, *paññā* is the most important one because it will enhance the mind to reach to the core of being human. It can eventually rescue human beings from *dukkha*. Therefore, it can be concluded that both *sila* and *samadhi* are necessary conditions and *paññā* is a sufficient condition for being relieved of *dukkha*. In the process of being freed from *dukkha* or attaining happiness at a level higher than *kamasukha*, each individual can actually experience such things by one's self.

Although there are many positive aspects of humanistic economics in its much better understanding of the true nature of human being, its weakness remain in its inability to explain factors that will lift the human mind from the level of material needs to social needs and finally moral needs. This weakness is due to the fact that humanistic economics does not have an adequate tool to systematically analyze the human mind, to be able to clearly explain what is required to help an individual to improve the mind. The clear answer explained in *Buddha Dhamma* is *paññā*. It also explains further how *paññā* can be developed and what the obstacles are for its development. If the above issues can be clearly understood, it will no longer be difficult to understand or to find the way to develop human mind. The other weakness of humanistic economics is due to its development under the framework of Western civilization where the concept of self is still very strong. Hence, the concept of "self" is appearing in every step of metal development in humanistic economics. They include self respect or self-esteem and self-actualization. It is very difficult to get rid of the concept of "self" under such a cultural framework.

In fact the three characteristics of anything, namely *aniccata*, *dukkha*, and *anatta* must always exist together. It is the analytical tool of everything in this universe both living and non-living things. It explains that everything is impermanent. Such a condition of impermanence is caused by internal and/or external conflict and contradiction. As everything is changing all the time, one cannot hold on to the whole or any part of it. The three concepts combined form into a natural law in the true sense. This law has never changed and it is anticipated that it will not change in the future either. It is a law that is always true, regardless of time. The true meaning of *vipassana* is the ability to understand this law clearly to the point that all ignorance about "self" is completely removed resulting in a complete change in behavior, thinking and way of life. This is the true definition of transcendental mind.

The three characteristics or three features that characterize everything are known together as *tilakkhana*. The last one, *anatta*, or the law of the non-conservation of energy, is a concept discovered only in the early 20th century by the physicist Albert Einstein. The concept is only close and not exactly the

same as *anatta*, however, it can be accepted that the two are similar. The concept is a part of modern physics that can be used to explain *anatta*. *Aniccata* and *dukkha* have been explainable by physics since the end of the 19th century, by the law of entropy. Nevertheless, modern physics does not combine the three concepts into one as explained in *tilakkhana*. All of these findings in Western science indicate the tendency that modern physics in coming to an understanding much closer to *Buddha Dhamma*. It is anticipated that the two will eventually merge into one.

Paññna is the Most Important Tool of *Buddha Dhamma*

Paññna is a necessary and sufficient condition for the development of a human mind. It is also able to eliminate *dukkha* completely to the point that only *sukha* or happiness will emerge naturally. The emphasis on accumulation of *paññna*, and the process to generate more *paññna* is most essential in *Buddha Dhamma*. The logic used in *Buddha Dhamma* is much more complex than the Aristotelian logic of extremes, of only black and white with no the middle ground of gray. In reality, most cases exist in the middle ground of the gray area where both black and white co-exist in varying degrees; while black and white are specific cases of gray. This type of logic has a "biased" name in mathematics: fuzzy logic. A more accurate representation of this type of logic would be clear, non-dualistic logic. An example of this logic is that within *dukkha* there always exists *some degree of sukha*. This is because *sukha* is the condition of less *dukkha*. The other example is within *avijja* or ignorance; there always exists *vijja* or *paññna*, or transcendental wisdom. [Please see the introductory explanation of Kosko, Bart (1994) Fuzzy Thinking, London, Flaming. Chapter one particularly explains white and black as specific cases of gray. Chapter five compares Buddha's logic with that of Aristotle and Chapter nine explains a fuzzy set.]

The main purpose for employing such logic is to reflect reality as much as possible. It is the most useful tool in understanding and solving the problem of human *dukkha*. The condition of *dukkha* reflects the fact that there exists a great deal of *avijja* or ignorance about the true nature of things. The solution should be to reduce *avijja* or ignorance as much as possible. The more the true nature of everything involved, can be clearly understood, the pain or *dukkha* will be reduced. This condition also implies that *sukkha* also increases. Apart from such clear non-dualistic logic that both A and non-A can coexist in different degree at various points, one can increase the level of complexity, by including the dynamism of impermanence or change or *aniccata* into the analysis. Such logic will increase in its complexity and depth. For example, *atta* or self does not exist at the same time as *niratta* or no-self since both are always in a transient stage.

Actually the term "fuzzy" logic also results from the confusion in understanding the real meaning of this type of logic. It is due to a mathematician who is use to understanding a logic that differentiates clearly A and non-A from each other. However, in reality most things cannot be clearly separated. Different things coexist with each other, similar to the situation of the gray area. Nevertheless, in each shade of gray one can identify clearly the percentage of black and white. For example, for *a* completely white spot it can be identified clearly that, it is 100 percent white with zero percent black. Next to it, it can be 99.9 percent white and 0.1 percent black. Therefore for each shade of gray, the percentages of white and black can be clearly determined.

The explanation of such logic is far from being rhetoric. In reality, in a dynamic situation where everything is constantly changing, the point that can be observed is the one about to be changed. The truth for each one depends very much on the time and the view point of each person. This fact results from the fundamental law of nature of *aniccata* or the law of impermanence. This law clearly explains that the nature of everything is impermanent and everything is always changing. It can be observed in nature all the time. This is why focusing on the ability to understand everything in its own nature, is a fundamental principle in *Buddha Dhamma*. When a human being understands everything in its own nature, a person will not hold on to the concept of "self". This understanding will eventually help that person to be free from *dukkha*. On the other hand, the belief that "self" does not exist at all or the concept or *niratta*, and a mind that is under the control of *kilesa* or defilements, such a false understanding may encourage persons to take actions that could be a burden for themselves as well as other living things. The actions taken under the control of *kilesa* will never help that person to be free from *dukkha*.

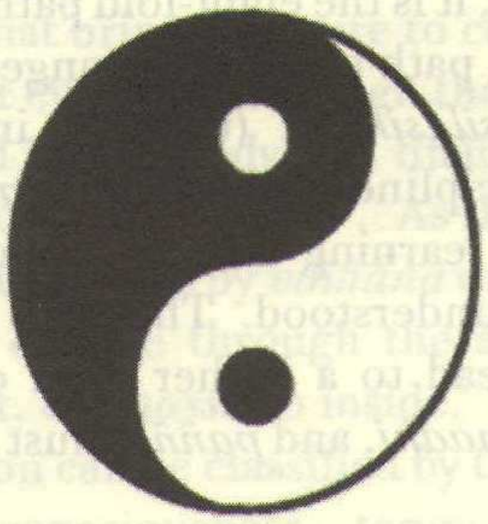
The true nature of everything explained above has already been examined elaborately in *Buddha Dhamma*. Black and white logic is only useful in examining a static situation. The Greek way of using natural law as an analytical tool used for *identification* developed into a black and white logic. The Greek analytical method was the origination of a Western civilization. It has the nature of static analysis. The signs used in early Greek logic are = and ≠, to be used for identifying whether things are the same or different.

The logic used in *Buddha Dhamma* and Daoism reflects dynamism or change. As a result, the signs that represent the thought in Buddhism and Daoism normally represent dynamic characters. While Buddhism uses the *Dhammacakka* or the Dhamma wheel, Daoism points to natural harmony through opposing forces that work together in harmony of *yin* and *yang* (see the picture below). The two teachings (Buddhism and Daoism) use natural laws to explain the relationship between human beings and nature. Such a relationship is dynamic.

Greek natural law is used to study the relationship of human beings primarily as individuals and how they relate to the city state. Such relationships must be balanced with an additional set of assumptions that Aristotle included as the concept that human beings are rational. Plato and St. Augustine point out that human beings are irrational based on empirical evidence. Both camps rely on static analysis. According to Plato and St. Augustine, the imbalance is caused by the fall of man or original sin. The ideal situation then is to live in peace in city state or return to the Kingdom of God, in the case of a theist. The academic term used to describe this situation is a comparatively static state of equilibrium. It explains that when the equilibrium has been disturbed, one looks to see what force(s) can bring all of the related variables back into equilibrium, either the original one or a new one.



Dhamma Wheel



Yin-Yang

As change or impermanence is always the case in the real world, the method of analysis in Buddhism is through causal relationship. Such a relationship can be represented with the sign of an arrow head →. This method of analysis will lead to a holistic relationship. Everything is a cause, a related factor or a result of the causes and other related factors. Analyses of holistic or causal relationships normally start from the end result and trace back to all of the other related factors as well as the original causes. If the result of certain actions is undesirable, such result can be pre-empted or prevented by elimination of the causes and other related factors. The most important tool that can be used to pre-empt or prevent the causes is *paññā*, the ability to understand everything in its own nature. Once the causes are clearly understood, the result can be prevented or pre-empted from occurring. In other words, one must remove all false beliefs that have been held fast in the past, and understand the law of casual relationship to the point of being willing to change to a new attitude towards the world and life as discussed earlier. The ability to trace back to the causes from the result is part of the process of *developing paññā*.

The most important way to accumulate or to develop *paññā* is the *middle way* or *majjhima patipada*. The middle way in *Buddha Dhamma* is not the middle position between the two extremes as it is commonly understood. Since the emphasis is more on the practical aspect, the teaching must be very clear for correct practice.

Dear monks, these two extremes are the ones that those who seek purification must avoid. One is indulgence in kamasukha or sukkha from acquisition and sensual pleasure. This is the common and low level of sukha. It is for common people and not for ariya or a noble one. It does not result in any useful thing.

The other is to live in hardship or live a very difficult life, or to live in dukkha. It is not the way for a noble one either. It does not result in any useful thing.

Tathagata or the Accomplished One has already achieved enlightenment. It is the middle way that does not involve the two extremes. It is the way to create the "eye" to see, to create ñana to know. It is the way for peace, for ultimate knowledge, for enlightenment and for nibbana.

What is the middle way? It is the way for a noble one consisting of the whole eight parts. They are sammaditthi or right understanding, sammasankappa or right mental attitude, samavaca or right speech, sammakammata or right conduct, sammaajiva or right livelihood or right means of living, samavayama or right effort, sammasati or mindfulness, and sammasamadhi or right concentration.

The middle way is not the way in the middle, but it is the way that does not involve the two extremes. Again, it is not the middle between the two extremes.

The two extremes are

1. *Kamasukkhallikanuyoga*, the extreme of sensual indulgence or extreme hedonism.
2. *Attakilamathanuyoga*, the extreme of self-mortification or extreme asceticism.

The middle way known as *majjhima patipada* has a definite goal. That is the eradication of *dukkha* or attainment of the condition of emancipation or freedom from all defilements. *Magga* is the path, the noble path, the system of thought and action to live life at its optimum in order to achieve the anticipated result, the end of *dukkha* or suffering.

The path or the way discussed above is the middle way or *majjhima patipada* (Dhammapitaka, 1995; 582-583). As for *magga*, it is the eight-fold path, the only way as already explained above.

The eight-fold noble path can be rearranged into the *sikkhattaya* or the three fold training. It can be sub-divided into *adhisilasikkha* (training in higher morality), *adhicittasikkha,* (training in higher mentality or mental discipline) and *adhipaññasikha* (training for the higher level of *pañña)*. *Sikkha* is the process of knowing or learning through actual practice to come to the point that everything becomes clearly evident or fully understood. The word *adhi* means greater, bigger, or higher. It implies that each level of training will lead to a higher level of training and understanding. In other word, the three components of *sila*, *samadhi*, and *pañña* must be trained together to increase the progression of the three, at the same time.

The ultimate goal is to eventually achieve the state of *nibbana*. It can be demonstrated as follows:

Adhisilasikkha (Sila)	*Adhicittasikkha (Samadhi)*	*Adhipaññasikkha (Pañña)*
-right speech -right conduct -right livelihood (Causing no burden on one's self or any other living thing.)	-right effort -right mindfulness -right concentration (Performing only useful things with full concentration.)	-right understanding -right mental attitude (Understanding everything in its own nature and always having right thoughts.)

The tool that will develop or transform the human mind is *pañña,* the most important tool in *Buddha Dhamma*. As *pañña* is the most crucial element for the development of human mind, the process for generating and accumulating a higher level of *pañña* is most essential. This understanding is actually missing in humanistic economics.

For a clearer understanding of the process that will generate and accumulate *pañña*, it is essential to study the composition of a human being in order to understand the process of learning or knowing *(sikkha)*. This exercise is aimed to find out all obstacles against the development of *pañña*. Appropriate correction or improvement can be made if we are able to identify any major obstacles in that process. The

explanation, of the learning process to be discussed below is uniquely Buddhist. There has been no such explanation in any other system of epistemology.

A human being is composed of five aggregates. One is tangible and the remaining four are intangible or abstraction. The five aggregates are formed into a concept called a person or self. (Dhammapitaka 1998B: 189)

Analysis of the aggregates is one way among many others designed to explain how *pañña* can be developed. This method of analysis is also a static one, the same way as that of the Western method. The main purpose is to demonstrate each component of a human being in the form of a still picture. This way, the mechanism of the five aggregates can be explained clearly. The five aggregates can be sub-divided as follow:

1.	*Rupa Khandha* or corporeality	Tangible
2.	*Vedana Khandha* or feeling or sensation.	Abstraction
3.	*Sañña Khandha* or perception or databank	Abstraction
4.	*Sankhara Khandha* or mental formation	Abstraction
5.	*Viññana Khandha* or consciousness	Abstraction

In aggregation they are together called *namarupa* or mind and corporeality. They form into the body and consciousness of living things especially human beings. (Busakorn, 1999: 117) The aggregates are how a human perceives information from the outside world and transforms that information into their own inner knowledge. Part of the five aggregates especially the corporeality serves as the door or the gate for external information to flow into the inside world. It serves to connect outside information to inside acknowledgement or understanding known as *ayatana* or sense-bases. Parts of the doors are eye, ear, nose, tongue, body, and the mind or the brain. The medium that will bring outside information to one of the door known as sense-objects, they are the light waves that bring a picture to contact the eyes, and the sound waves that brings the noise to the ears, the smell that evaporate through the nose, the taste when it contacts the tongue, a sense of touch when being touched by the body and finally ideas and thought as cognizable objects in abstract from contacted by a brain known as a "mind". As the sense-objects contact *ayatana* or sense-bases the out side information will be carried inside by *viññana* or consciousness.

The process of receiving information from the world outside through the sense objects carrier to *ayatana* or sense bases or the doors for all forms of contact, or *phassa* to inside. The information will be carried within by *viññana* or consciousness. The information can be classified by the six means of contact, namely, eye consciousness, ear consciousness, nose consciousness, tongue consciousness, body consciousness, and the mind consciousness, respectively. (Dhammapitaka 1995: 35-36)

Body contact is a way to receive information from the outside even for a single cell animal. As a single cell animal gradually evolves into a shell, the level of contact increases to include ear contact for hearing. The further development into a gastropod, adds two additional means for external contact, namely, tongue contact and eye contact. As the evolution reaches the stage of a fish, the nose contact also exists. The fish has five complete channels for contact. It can be concluded that the evolution of an animal in receiving information from outside is in the following hierarchical order: body, ear, eye, tongue, and nose contacts. (Samakra, 1999, 223-224) A human being is a kind of animal with the potential of unlimited mind development. This quality differentiates human beings from the rest of the animals. The best part of a human being is due to the existence of the mind contact. This channel of contact enables a human being to learn from the world outside without any the limitation of material objects. A human being can also learn by and from mental abstractions, such as happiness, pain, greed, hatred, and delusion. A human being can also understand complex abstraction. For these reasons, a human being has the ability to learn from both the outside and the inside world without any limitation. This quality differs from all other animals even the ones with mind contact. They all have a certain level of limitation to learning from the outside world, not to mention the world inside.

Observe also that the Western knowledge available to analyze human aggregates consist only two parts, body and mind. It does not further classify the mind into the four categories explained earlier. This failure results in an incomplete understanding of a human being especially in mainstream economics on the part

of its understanding and explanation of the human mind. The main emphasis is only on minor parts, namely self-interest and maximizing pleasure (hedonism). These two are used as the most dominant qualities of the human mind without due regards to other more important qualities of the mind. This ignorance results in a grave mistake in the analyses. Their findings result in alienation from the true nature of humankind. This mistake has, in turn, a severe repercussion on humankind as well as the earth used to nurture the species.

For the remaining three aggregates, namely *vedana*, *sañña,* and *sankhara*, they also work together with *rupa* or corporeality and *viññana* in the following way.

Vedana or feeling can be classified into three different types, feeling *sukha* (both physical and mental), feeling *dukkha* (both physical and mental) and feeling neither *sukha* nor *dukkha* or feeling nothing. *Vedana* serves as an automatic nerve. As soon as the outside information reaches the point of contact, *vedana* will react to the said information automatically by identifying the information, which results in the feeling of *sukha* or *dukkha* or no feeling at all. This part of the mind serves as self protection.

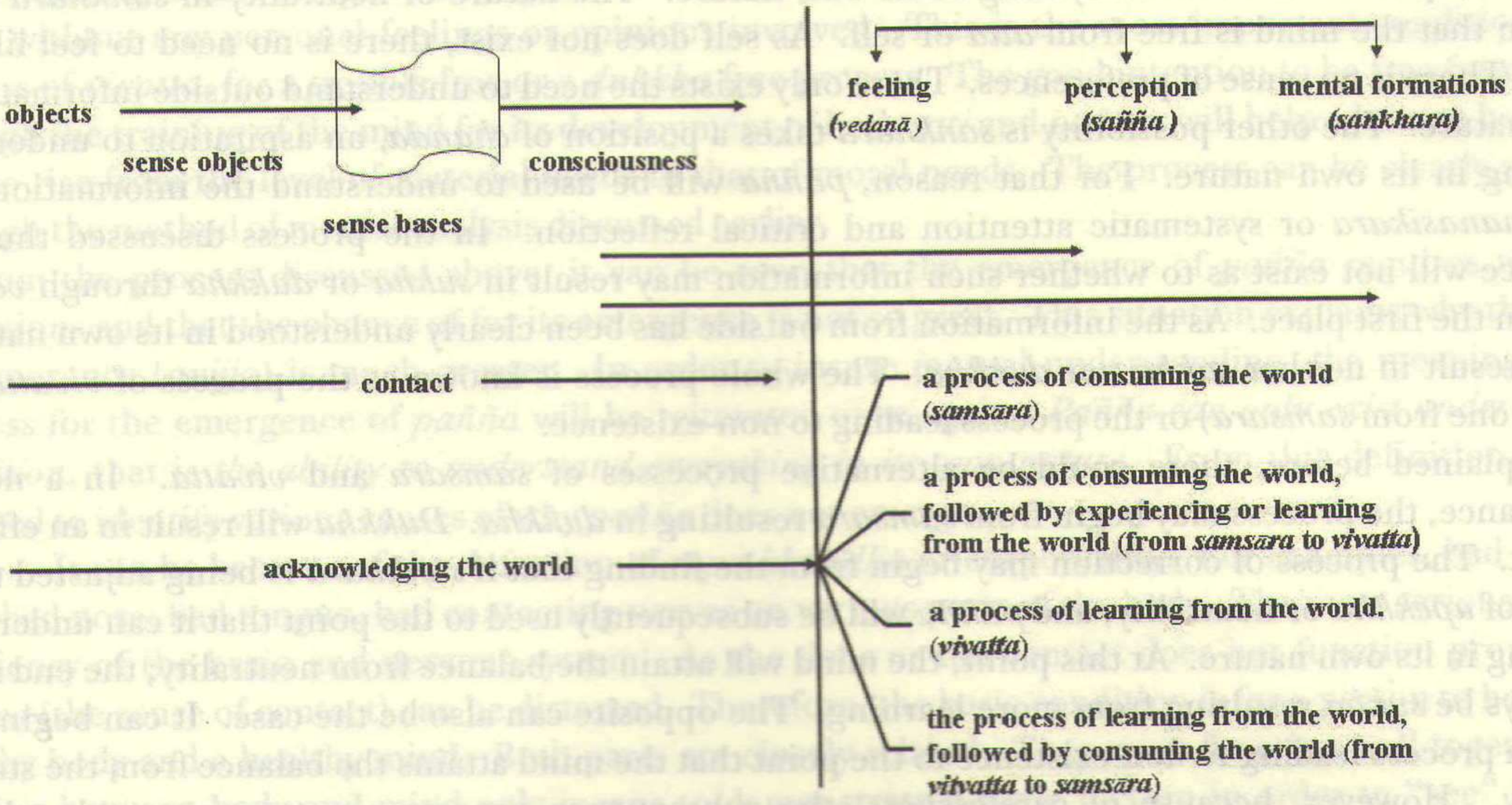
If the impact from external information results in *dukkha*, the information will be kept in *sañña,* so that a person can try to avoid such contact in the future. If the contact results in *sukha*, there will be no danger repeat this experience. The response of no feeling can be interpreted into two ways. It can either be that the contacted information does not present any threat nor help improve anything, or the other possibility is that the *vedana* is not functioning correctly. This latter possibility can be a real threat to life. Upon receiving information from outside, *vedana* may inform *viññana* that it is refreshing, or relaxing, or feeling sorry, sad or in pain from the eye, ear, nose, tongue, body or mental contacts. This is part of the survival instinct of all animals.

Sañña (perception or remembrance from previous experience) serves as a data base. If the information is ready available in this database, *sati* (awareness or mindfulness) will retrieve the information for current use. If the information is completely new, *sañña* will store the information for future use.

The main component of *Sankhara* (mental formation) is intention. Such intention will dictate the mental formation to be good, bad or neutral. Such formation also involves careful consideration. After that, it will dictate an action according to what has been formed or thought. It is the original source of *kamma* or action. Examples of *sankhara* are *saddha* (faith or confidence), *sati* (mindfulness or awareness), *hiri* (moral shame), *ottappa* (moral dread), *metta* (loving kindness), *karuna* (compassion), *mudita* (sympathetic joy), *upekkha* (equanimity or even mindfulness), *pañña*, *moha* (delusion), *lobha* (greed), *dosa* (anger), *ditthi* (holding fast to specific beliefs), *issa* (jealousy), and *macchariya* (stinginess or selfishness), etc. These various characteristics of the mind can be called mental formations or the formation or thought that can result in subsequent action. (Dhammapitaka, 1995:16)

Among the three, *sankhara* is the most important one, because it is dictated by intention. Intention can in turn control *vedana* (feeling) and *sañña* (perception). *Vedana* and *sañña*, by their own nature, will both normally react directly to outside information without any intention. Being controlled by *sankhara*, the two may distort the incoming information because of the intention dictated behind the *sankhara*. Intention is an important element of mind in *Buddha Dhamma*, because it can be either *kusala cetana* (good intention) or *akusala cetana* (bad intention) resulting in good or bad action. This action will directly affect a person's life as well as the lives of others. *Viññana* normally serves as the core of consciousness of the learning process that consists of *phassa*, *vedana*, and *sañña*. The four usually work simultaneously. However, *sankhara* can influence the whole learning process from the beginning, as well as in the later stages. They all depend on which intention dictates the existing *sankhara*. For example, it can be *moha* (delusion) or *amoha* (without any delusion). (Dhammapitaka 1995:4) Diagram 3 explaining the process of learning from the outside world is shown below.

Diagram 3:
The Explanation of the Working of *Khandha* in *Buddha Dhamma.*



Note: The arrow head reaching *saññā* and *sankhara* implies that acknowledging the three in the first round.

In this diagram for simplicity there will be a clear division of the whole process into two parts. The first part will be the *pure acknowledgement* of the outside world (the left side of the diagram). The second part will be the *consuming* or *experiencing (learning)* of the outside world (the right side of the diagram). The process of consuming or experiencing can be shown in several scenarios. For example, it can be either only experiencing or only consuming information from outside world. Alternatively, one can consume and learn or experiencing the world and then consuming. This case can take place when *moha* or delusion dictates *sankhara* after experiencing outside world. It can always be only consuming from the outside world all the way through, simply because *sankhara* is always dictated by *moha*. However, while experiencing information from the outside world, *sankhara* would always be controlled by *pañña*. Such experiencing will continuously be improved into pure learning. Under this condition *pañña* will be improving all the time. When *moha* or *lobha* or *dosa* intervene, the experiencing process will turn to be the process of consuming information from the outside world.

The first process of pure acknowledgement of information from the outside world begins from subject bases carrying information from the outside world to *ayatana* and *viññana*(consciousness) acknowledges such information and carries the information further to *vedana*. After this the next process will follow especially when such knowledge is carried further to *saññā* and through to *sankhara* resulting in liking or not liking or neutrality (*upekkha*). When the information reaches *sankhara,* the mind will be ready to understand and learn or to consume the information from the outside world. If *sankhara* perceives "liking", there will exist a desire for having more with better quality. This will result in a new mental formation that will dictate *saññā* to store the new information for execution in the future. If the information is not to the liking of a person, *sankhara* will direct *saññā* to store the information in order to avoid it in the future. The liking and not liking will result in *sukha* and *dukkha* alternating without end.

As soon as the sense of liking or not liking exists, *atta* already exists. It will hold on fast to the information received, endless resulting in a new process of *dukkha* known as *samsara*.

Another possibility is that after the process of pure acknowledgement of the outside world has already passed through *sañña*, and *sankhara* takes a position of neutrality indicating that it is ready to learn, *pañña* will try to understand everything in its own nature. The nature of neutrality in *sankhara* is the condition that the mind is free from *atta* or self. As self does not exist, there is no need to feel likes or dislikes. There is no sense of preferences. There only exists the need to understand outside information in its own nature. The other possibility is *sankhara* takes a position of *chanda,* an aspiration to understand everything in its own nature. For that reason, *pañña* will be used to understand the information with *yoniso manasikara* or systematic attention and critical reflection. In the process discussed thus far, preference will not exist as to whether such information may result in *sukha* or *dukkha* through *vedana* (*jhana*) in the first place. As the information from outside has been clearly understood in its own nature it will not result in neither *sukha* nor *dukkha*. The whole process is known as the process of *vivatta* (the opposite one from *samsara*) or the process leading to non-existence.

As explained before, there could be alternative processes of *samsara* and *vivatta*. In a normal circumstance, the process may begin from *samsara* resulting in *dukkha*. *Dukkha* will result in an effort to correct it. The process of correction may begin from the finding that if *sankhara* is being adjusted to the position of *upekkha* or neutrality, and *pañña* will be subsequently used to the point that it can understand everything in its own nature. At this point, the mind will attain the balance from neutrality; the end result will always be *sukha* resulting from more learning. The opposite can also be the case. It can begin from *vivatta*, a process leading to non-existence to the point that the mind attains the balance from the stage of neutrality. However, because of carelessness, the subsequence process can turn out to be that of consuming the external world. *Vedana* may either feel *sukha* or *dukkha*, and *sankhara* tries to hold on to that feeling, resulting into the reverse process of *samsara*. If a person has already experienced a higher *sukha* than the feeling from sensual pleasure that person may feel such pleasure without any attachment to the point of being a slave of such pleasure. This condition can be indicated by the fact that missing such sensual pleasure will not result in melancholy or sadness or desperation. There is no need to return to it. This situation results from the fact that the person understands *nissarana* or the way to attain a higher level of *sukha* without the need for sensual pleasure. It is a form of *sukha* that is independent of feeling (*vedana*) that requires external acquisition. It is a happiness or *sukha* based on a clean, calm, and clear mind. It may also be referred to as an "empty" mind, a clear mind that has nothing left in it. Under this condition of the mind, a person still receives sense objects through seeing, hearing, smelling, tasting, or touching, or being touched, and that person can have a full sensual feeling from all of the contacts, because that person will never feel sad or miss them and long for them after living without them. Given that quality of the mind, apart from attaining happiness without pain, the mind will also work efficiently for any possible work involved. Because of this quality, it can be concluded that *nibbana is the condition of the mind that attains complete happiness (tranquility) and it is also the condition of being ready to feel happy.* (Dhammapitaka, 1995: 549-550)

The whole process discussed thus far can take place within a split second. Without such systematic analysis of how the mind works, one will not understand the work of *vedana* that results in the feeling of *sukha* or *dukkha* that will further result in holding fast to the concept of "self", the one always existed in western civilization. Those born with a strong concept of self will have little chance to understand the process of how the mind works, discussed earlier. Without a clear understanding, the best thing that one can do is to hold on to a belief gained from casual observation. Such misunderstanding can result in incorrect understanding of the essence of a human being, the same way as the incomplete understanding of humanity in main-stream economics. Even humanistic economics that understands humanity more than the mainstream, also fails to understand how the mind works systematically. This weakness results in an inability to explain how a human mind can be developed from the level of material needs to that of moral needs.

From diagram 3, displayed above, if the learning process of the external world is in a *vivatta* way, there must be a method for the training of the mind to always be in a state of mindfulness. This way *sati* or mindfulness will control *sankhara* to be in the stage of neutrality all the time. Under this condition, *pañña*, another quality of *sankhara* will emerge and examine everything in order to have a clear understanding of that thing in its own nature. This way, the outside world can be explained as it has always been, without any personal feelings or opinions involved. This is the most important condition for the process of *vivatta*, for a trouble free or a *dukkha* free process. The good intention to be free from *dukkha* through the training of the mind for its development of both *sati* and *pañña,* will help a human being to be able to rise from the level of material needs to that of moral needs. The process can be clearly explained through the method of mental analysis discussed earlier.

From the process discussed above, it can be seen that the emergence of *pañña* requires numerous conditions and that the chance of for its emergence is not so great. This situation explains why the chance for ignorance (*avijja*) is much greater. In order to insure mutual understanding, the meaning and the process for the emergence of *pañña* will be reiterated once again. *Pañña can only exist under only one condition*, that is *the ability to understand everything in its own nature.* From this definition, one can proceed to identify various causes of why *pañña* does not emerge.

1. It can be because of the defection of *rupa khandha* or corporeality. For examples, bad eyes, bad ears, bad nose, bad tongue, bad contacting nerves on various parts of the body. The most serious of all is a deficiency of the brain and nervous system. As the door or the contact does not function properly, the *phassa* (the sense of contact) can be distorted. Therefore, the basic condition is for a person to have both a healthy body and a healthy mind. Both parts are closely related. They must function well together. The division between body and mind only means to demonstrate a static picture in order to "see" each part clearly before the dynamism of everything is set in motion. The essence of a healthy body and mind in this case is the good nervous system to act as a good receptor for contact for firm *sati* and sharp *pañña*.
2. *Viññana* that acknowledges the information from outside at the same time as *vedana* and *sañña* and forwards the information to *sankhara* must be able to perform its function without any deficiency. In other word, a person's consciousness must have normal functioning.
3. *Sañña* must function properly in providing accurate perception. If perception is not accurate or is distorted, *pañña* will not emerge.
4. *Sankhara* must have its intention to learn or understand the outside world in its own nature, with strong aspiration to improve the existing situation through mindfulness, with full comprehension. *Sankhara* should not distort the fact perceived from knowing, seeing, hearing, tasting, and touching. Everything must be understood from its original nature. Unfortunately, a human being is usually careless and is more likely to over claim or having bias toward things that are not clearly or well understood. As a result the knowledge received in a person's perception will eventually differ from the nature of the thing under investigation.
5. In general, the case that everything is understood in its own nature, *vedana*, will be controlled by the neutrality of *sankhara* to also be in the form of neutrality, the feeling of gladness, sadness, pleasure, or being discouraged will not arise. If *vedana* is controlled by a non-neutral *sankhara*, it will hold on to what perceived as a good feeling and trying to regain that feeling through various means. On the other hand, if what is received is not satisfactory, *vedana* will tell the mind to try to avoid having it next time.

It can be seen clearly that the most important condition for the emergence of *pañña* is that each *khandha* or each aggregate from (1) to (4) must function properly. Malfunctioning of any one of them and the whole system cannot operate properly. The information from the outside world will be distorted to the point that it cannot be clearly understood in its own nature. The process for the accumulation of *pañña* cannot then function properly.

The factor that actually causes the distortion of *sankhara* is *atta* or self. It is the characteristic that dictates the feeling of like or dislike. With *atta* (self) *sankhara* will never be neutral. With the neutrality of *sankhara*, everything will be understood from its own causal relationship. There is no reason to be pleased, offended, glad or sad because there is no "self" to be so. Every process of acknowledgement will

turn into a learning process. This process is a process for the accumulation of *pañña*. One additional condition must be added for the emergence of *pañña*. That condition is *anatta* or *non-self*. This condition is actually left out as it should already be understood. At the same time, if the concept of these five aggregates is clearly understood, it already implies the concept of non-self, since none of the *khandha* or any of the five aggregate can be identified as a "self" at all. The five aggregates cannot be identified as a "self" because each is at a transient stage. The process of learning for the generation or accumulation of *pañña* is the most important one. However, in reality the chance for this process to work out smoothly is not great, even though in reality the true nature of everything is never concealed. Nevertheless, distortion can take place at almost every step of the work of the mind. Such distortion reduces the opportunity for learning and the generation of *pañña*.

Therefore, the conditions for the generation of *pañña* must begin from the clear understanding of the five aggregates, which implies the situation of non-self. Apart from that, a person must also have a healthy body and a healthy mind for the perfect transfer of information from the outside world. The part of *sankhara* known as *sati* or mindfulness must be firm so that it is able to capture each piece of information for thorough examination to be able to learn and understand everything in its own nature, without distorting anything beyond reality.

Whether a person is rational or irrational depends very much on whether that person has firm mindfulness and *pañña* to learn and understand everything in its own nature. It has been used as an analogy in the teaching of Buddha that if a person has achieved the perfection of *sila*, *samadhi*, and *pañña*, even the angels, *Indra* and *Brahma* will respect that person.

Although the explanation above is a Buddhist way of explaining, everyone is able to have full access of such knowledge by one's self, if the person has become a Buddha. Remember, the meaning of a Buddha is one who knows, who is awakened, and who has become enlightened by one's self. This possibility is within the ability of each one as a human being to have access to it. Such quality reflects the full potential of a human being. The main obstacle is due to the complex process for the generation of *pañña*, although there is a clear process to understand how *pañña* can be generated.

Part of the knowledge explained above has been shielded by the evolution of western civilization. Such civilization results in significant distortion of reality. The distortion yields unfavorable outcomes for humanity. At this point, it also should be explained why western civilization results in shielding the availability of such natural knowledge that can actually accessible by everyone.

The Explanation of *Pañña* through *Paticcasamuppada*

The analysis of the five aggregates is through the separation of each aggregate in order to clearly explain the concept of non-self. Unfortunately, the fact that it can be clearly shown why it is difficult for *pañña* to emerge becomes its own weakness. The weakness arises because it is a static analysis. It is not consistent with a Buddhist way of holistic and dynamic analysis of nature. It can also be confusing when it explains that both *sati* and *pañña* are also parts of *sankhara*. There is a suggestion that the explanation of the concept of *pañña* can be more clearly understood by using the principle of *paticcasamuppada* or the law of dependent origination (conditioned arising). This law explains the process of arising and the ceasing of *dukkha*. It is a holistic and dynamic analysis mostly used in *Buddha Dhamma*. It is in the form of a circle without beginning or end.

Because of *avijja* (ignorance) is the cause, *sankhara* (mental formation with intention) arises resulting in *viññana* (consciousness that is dictated by ignorance with intention). Therefore this consciousness is consistent with the said mental formation. Because consciousness exists, there also exists *namarupa* (body and mind) and a complete formation of the five aggregates understood as "self". Because "self" exists, there exists a *salayatana* (a sense-base) as a means to receive information from the outside world. Because of *salayatana*, there exists *phassa* (the door or channel to contact the outside world) . As the contact takes place, *vedana* will feel the object bases and indicate like or dislike. If the response is dislike, this incident will be avoided next time, and the response to liking will be the formation of a *tanha* (a craving) to have more. If this craving has not been eliminated, it will increase in the degree to a new level of *upadana* (the

grasping for having more in order to satisfy a higher level of craving). This strong grasping results in *bhava* (existence). This force of existence will result in *jati* (birth of a thing or the force to attain the thing dictated by the craving). Once the thing is born it will be accompanied by *jara-marana* (decay and death or the gain or loss of the thing that was strongly desired). The loss of the thing that was holding fast results in *domanassa* (displeasure), and it may increase in degree to *upayasa* (despair) or to *soka* (grief or sorrow) resulting in *parideva* (lamentation). All have various degrees of dukkha. After this a new circle begins again and the cycle continues without end. The whole process discussed above can take place within a split second. Without careful examination one will never be able to realize how it actually happened. In Western tradition it can be only explained as the work of a rational or irrational mind.

In order escape this cycle of *samsara*, it is necessary to end it with the knowledge gained from reality or *vijja* (that has the same meaning as *pañña*) to replace *avijja* in (1). Another way to accomplish this is to use *pañña* to control *sankhara*, to make sure that it will take a neutral position. *Pañña* can also deal indirectly with *vedana*, or *tanha*, or *upadana*. If the cycle of *samsara* is broken at any point by *pañña*, the end result of *dukkha* will disappear.

The distinctive character of *paticcasamuppada* is the pattern of causal relationship. This condition causes the development of these results. It is a description of a holistic, dynamic, and causal relationship of all factors affecting the work of the mind in all living things that have "minds" especially human beings. It also demonstrates how *pañña* can resolve the problem of ignorance or *avijja* which is both a cause and a result of *dukkha*. The weakness of this analytical tool is that this method cannot demonstrate as clearly as the analysis of the five aggregates that actually *pañña* does not easily emerge. As a result, the explanation of *pañña* through the analysis of *paticcasamuppada* has both its strengths and weaknesses. Also, there have been various interpretations of *paticcasamuppada* in the form of previous, present, and future lives. These explanations are not as easily understood by many people as the explanation of the five aggregates. The explanation of the five aggregates can clearly explain each step in the functioning of the various kinds of minds. Thus, the significance of *pañña* can be more clearly understood by the analysis of the five aggregates. At the same time, *paticcasamuppada* can be used as the most important tool to explain how *pañña* can be used for the elimination of *dukkha*.

A Comparison of Buddhist Thought to that of Western Civilization

Western civilization originally evolved from Greek thought and Judaism and further incorporated the ideas of Rome and Christianity. Some western scholars have indicated that under the influence of the Judeo-Christian belief in monotheism, results in the acceptance of the concept of absolute truth. It is very difficult for the believers of such concepts to understand why different sets of knowledge that provide contradicting answers can all be correct answers. The thinking and understanding this way result from a static analysis. However, if the thing under analysis is dynamic, as already explained, there can be different answers even conflicting ones, and all of them can be correct. The emphasis on one absolutely correct answer has been a weakness of Western civilization especially from the early time of Christianity up to the period of modernization (the mid 20th century). This belief leads to the use of to basic Aristotelian logic that is an either-or logic without any space in the middle. This kind of logic has led to the development of two extremes, divided into two camps. One believes that human beings are rational. Prominent thinkers in this camp are Aristotle and St. Aquinas and the Scholastic School of Thought down to Adam Smith and Samuelson. The other camp believes that human beings are irrational and only God is rational. Although they have a common belief that by nature a human being is rational because man has been created in the image of God, the irrational camp believes that the irrationality is because of the fall of man or original sin. Plato proposed that without a God, their must exist social institutions to control human behavior. The city state must set rules and regulations for the control of its members' behavior. For theists, as one cannot trust human rational behavior, one must turn to God for control. Human beings therefore have a duty to try their best for God's approval. (St. Augustine and John Calvin) For Karl Marx, it is necessary to have the state serve the interest of the working class to control human behavior. In a democratic society, the

community members must make the rules for everyone. In a much larger society, checks and balances of power are necessary. All of these proposals are based on the belief that human beings are irrational.

The camp that believes in human rationality argues further that property rights are a natural right of human beings. It is a right given to human beings by God. As everyone is rational, a person can manage their own property most effectively, if it is properly managed. Although each one shares common interest without direct interest in most cases, this form of management is in fact inefficient. The evidence has accumulated through out human history. The camp that does not believe in rational human behavior explains that a cause of irrationality in human beings is due to private property rights. These rights result in human greed with endless desire for accumulation. The only way to assist human beings in regaining rationality in this case is to encourage a simple life without the accumulation of personal wealth. It can be clearly seen that this camp understands the consequence of greed very well but it does not understand the cause for being rational/irrational behavior in human beings well enough. As the cause is not clearly understood, the solution points to an institution required to manage common property. It has been proven time and time again that this is an inefficient way deal with the problem. This blind spot turns out to be the weakness where the camp who believes in human irrationality can be seriously attacked.

However, if human beings are understood in their own nature as emphasized in *Buddha Dhamma*, one will find that human beings consist of both rational and irrational parts according to the clear logic of non-duality. Human beings are rational when being mindful all the time and ready to firmly take everything inside in order to allow *sampajañña,* (a clear comprehension) to thoroughly examine the information in order to learn and understand everything in its own nature (*pañña*). A human being will be rational if that person has both *sati* (mindfulness) and *pañña*. The need for personal accumulation of wealth will be greatly reduced. It will become evident to that person that such action is not essential for life. As a result, the issue of property rights in Buddhist thought is not of much importance.

Anyhow, in reality, the camp who believes in the irrationality of a human being tends to be closer to Buddhist thought. This is because the process to generate *pañña* is conditional to many things. It is rather unrealistic to hope that a human being would be rational by original nature, without any training such as the rigorous process of the three trainings (*sikkhattaya)*. Therefore, while human beings are still not well developed in *sati* and *pañña*, there is still a need for internal monitoring within the community. Even the more developed members of the *sangha* (the community monks), must be closely monitored by a community of lay persons supporting them. Hence, the Buddhist way of practice is closest to the Western camp that believes in human irrationality. Unfortunately, this camp cannot clearly explain why human beings are irrational. They reach this conclusion from empirical evidence of actual human behavior and resort to controlling such behavior to keep it within reasonable bounds.

It can be concluded that the camp that believes in a rational human is based on a rather blind faith without adequate reasoning. It is the original cause of most of the major problems facing humanity. Such a belief also reflects the fact that human beings are irrational. The belief has its root in the belief in monotheism and one absolute truth, together with the belief that man is created in the image of God. Since God is rational, His creation (human beings) must also be rational. Whether this belief is true or not, it cannot be tested, proven or made clearly evident from the tools commonly understood or known by an individual. Unfortunately, most evidence is in opposition to such a belief. The belief in monotheism and one absolute truth leading to the extreme logic of black and white can be considered as one major weakness of Western civilization.

Another weakness in Western civilization is the meaning of the word rational itself. In explaining Aristotle's concept of rationality, one must begin by defining the words rational and irrational. The two words depend on the concepts of good and bad. The weakness for clear understanding of the concept results from the nature of the static analysis used for classification in a traditional sense. Although, the concept is used to explain some forms of relativity as well, its explanation is limited to the relationships among human beings and between individuals and the city state. The missing part is the relationship between human beings and the nature around them. This is, in part, due to the belief that the nature has been created to serve humanity, while Eastern civilization views human beings as part of nature.

Because of this Western view, the concept of development evolved was based on exploiting or controlling nature for human benefit. The part that is missing is the concept strong emphasis should be put on the harmonious co-existence of human beings and nature.

Considering that goodness and badness results from using natural law for identification, for Aristotle it was useless to discuss a non-living thing such as a rock in terms of goodness or badness. However, if living things such as trees, cats, or human beings, are involved, the concept of good or bad has its own meaning. Good things are things that support life and allow it to flourish. Anything opposite that is bad. Thus, a rational act is an act that results in supporting, sustaining and allowing life to flourish. The opposite end result is irrational.

The most crucial weakness in this case is to take into consideration all life forms. In this generalization, the unique characteristic of a human, the human mind, must be left out. Without consideration of the mind, goodness or rationality can only relate to the physiological part. It does not make much sense to discuss the mind of a tree or a cat. For the reason explained above, the word "rational" in western civilization is narrow and shallow. It is the most significant weakness because it leads us to overlook the spirituality human beings. It deals with the physical and physiological parts of a human being only. Especially, during the Newtonian Age of mechanic physics while the significance of God was diminishing, human beings were finally seen in mechanical relationships without any consciousness. This understanding of human beings is far from reality. It was the beginning of alienation from the true human nature, especially in various science subjects developed in Western civilization.

Examining goodness and badness in a Buddhist way, the emphasis will be on human intention and the subsequence act. This way goodness and badness can be explained more carefully within the context of the true nature of a human being, as discussed below:

1. It is a social convention. The concept of what is good or bad depends on how the contemporary society defines for it peaceful existence. The concept can be changed in time and space.

2. It is an actual human act and it does not vary by time and space. There are two criteria for consideration.

2.1. Looking at its root cause, consider whether it originates from good or bad intention. Bad intention is controlled by greed, hatred, anger, and delusion. If the intention is bad, the consequent actions will be bad ones. If it originates from good intentions, that are without greed, hatred , anger, and delusion, the consequential actions will be good ones. This idea is consistent with those of Immanuel Kant (1724-1804) to be discussed in more detail in chapter fourteen related to economic ethics of naturalism and humanism originating in the West.

2.2. It can be considered based on the usefulness in human life. Does it result a relaxed mind without any pressure without defilements and with a healthy body and mind? Does it support or lower the quality of life and mind, or does it help to reduce the undesirable parts? (Dhammapitaka, 1995A: 173-179)

The explanation of goodness and badness explained above covers all aspects completely. The concept explained by Aristotle only covers 2.2. In 2.1, the focus is on the intention not available in Aristotle's explanation since Aristotle does not give much weight to actors but focuses on the outcome of the acts as explained in 2.2. However, in 2.2 the emphasis is more on the mental part, rather than the physiological part. This is because *dukkha* or *sukha* of a human being is not confined only to the physiological part. In the majority of cases it depends more on the condition of the mind. The emphasis on the mind is the part that is most consistent with human nature. In Aristotle's thought, it is not possible to include the mind, because a tree and a cat are also considered at the same time. This point is a serious weakness of the concept of rational thought developed in the West.

It can then be concluded that, the weakness of thoughts developed in Western civilization reflects the incomplete understanding the core nature of human beings. The explanation of human nature is not as close to reality as the Buddhist explanation. This incomplete understanding originates from two thoughts.

1. The belief in monotheism and one absolute truth leads to black and white logic. Such logic leads to two conflicting streams of thought. One camp believes that a human being is rational. The other camp accepts that a human being is created to be rational but irrational man is a result of original sin or the fall of

man. In reality human beings are rational under the condition of full mindfulness with *paññа*. Without these two conditions, a human being will be irrational. Without such concepts, the West has overlooked the significance of the process to improve both *sati* and *paññа*. These two are the most important tools to use in solving practically all human problems.

2. With the rational, based on only goodness and badness through the clear division between living things and non-living things, this way, the most important quality of a human being, human spirituality is completely omitted from the vocabulary of the analyses of all "scientific subjects" in the West. This method of analysis devalues human beings to the level of other living things such as trees and cats. Human beings are reduced to only physiological or a physical beings. As the spiritual part that links humans directly to God has been gradually forgotten and slowly replaced by mechanic physics, the quality of human beings has been further reduced to a non-living thing: a machine. In reality the most important aspect of a human being is spirituality. It is the origin of *dukkha* and *sukkha* in a person. Human beings in their true nature always seek to be completely free from *dukkha*, so that only *sukha* will remain. It is the condition of *vimuttisukha*, the condition of being free from all mental defilements. If this deficiency cannot be corrected in time, in the end most sciences developed in Western civilization will only lead to human catastrophe.

From these two weaknesses, it can be clearly explained that *autistic economics* developed from western civilization is leading in the direction of degeneration. It requires Buddhist thought to correct such a trend in order to use the economics to serve humankind. In order to use knowledge and correctly apply it to the existing situation, it is necessary to understand the critical point at which economics turned to the very dangerous path it is currently moving on. In the early chapters, there has been some explanation of the nature of that movement toward catastrophe based on the logic developed in the West. From here on, Buddhist thought will be incorporated into the explanation for clearer understanding. Looking at the earlier discussion on *Buddha Dhamma* and Western civilization, a quotation from Einstein, the 20th century's most renowned physicist may serve as an inspiration.

In his book *Words of Wisdom to Live by,* Karuna Kusalasai translated to Thai a quote that is often found attributed to Albert Einstein.

> "The religion of the future will be a cosmic religion. It should transcend personal God and avoid dogma and theology. Covering both the natural and the spiritual, it should be based on a religious sense arising from the experience of all things natural and spiritual as a meaningful unity. Buddhism answers this description. If there is any religion that could cope with modern scientific needs it would be Buddhism."

Although this "quote" is not directly traceable to Einstein, the ideas reflected in t are not inconsistent with other comments he is known to have made regarding religion and Buddhism. From the universal of concepts in *Buddha Dhamma* explained by Einstein, there is a possibility that in the future economics developed from an understanding of *Buddha Dhamma* (Buddhist Economics) will be more universal than the mainstream economics developed in the West with its limited understanding of the true nature of human beings.

The Degeneration of Economics Developed in the West

David Loy (1998:4) pointed out the reason for the degeneration in spirituality resulting in the deterioration of the understanding of humanity in general. This degeneration had its beginning in the modern age. There were three factors involved: the emergence of the secular world of the nation state; the emergence of capitalism developed in the form of the corporation; and the mechanistic sciences. This situation can be explained in a Buddhist way as the evolution of greed, anger, and delusion into institutions. Capitalism in the form of the corporation represents an institution of greed. The nation state represents an institution of greed and an institution of power or anger. The mechanistic sciences represent the institution of delusion since they claim part of the truth to be the whole truth. The emergence of these three institutions implies that *kilesa* or defilements has evolved into an institution. Such institutions exert full control of humankind. This situation results in pushing every human activity to the extreme of craving and sensual pleasure only. Such institutions have shielded the opportunity for the

development of human *pañña* and being able to understand everything in its own nature. The most significant change took place at the beginning of the 16th century, in the form of the Reformation led by Martin Luther.

To be fair to Martin Luther, it should also be noted that the Reformation movement was a result of the degeneration of the Church, as it began to turn away from the traditional role in providing welfare for the poor, to more concern with accumulation of wealth and the increasing emphasis on the divine power of the Pope. The rapid change in attitude of the Church was in part due to the emergence of mercantilism toward the end of 15th century that originated in Spain in the form of colonization. Such action resulted in thinkers in Spain, especially from the University of Salamanca, systematically developing many monetary and international trade theories. Mercantilism consists of three elements: the power afforded by the new technology of gunboats; the nation state; and the colony. The gunboat technology was the most important tool enabling the colonizers to seize power and wealth from the local people and turn them into a colony. Such technology was effectively managed by so-called "business politics", namely the close cooperation between the king (the supreme power of the nation state) and the merchants or traders for their common benefits. The king normally gave a charter of incorporation to the traders to limit their responsibilities up to their amount of investment. In return the king shared the profits from the corporations and provided legal as well as military protection in return. In most cases the king appointed representatives of the corporations to rule the colonies and received a sizable share of profits.

As the King of Spain was subject to the Church of Rome, this action actually received the approval of the Pope. It was the beginning of the degeneration of the Church resulting in the Reformation. From the view point of Marin Luther, any priest who served as a medium of communication between the laity and God exerted his power beyond his limit. Individuals who were part of God's family and creation should be able to communicate with God directly. There was no need to do so through a corrupted medium. This issue was most crucial in the reformation movement. Mercantilism accompanied by colonialism emerged as institutions of greed, power and anger. It was the origin of capitalism that involved in the form of corporation. The end result was the degeneration in faith to the Church (from its peak during 11th-13th centuries).

The aftermath of the Reformation was the emergence of many nation states in Europe. The rulers of these states claimed themselves to be Protestant and proclaimed themselves to be the kings of the respected states. Although all of those kings declared that they believed in God, they were secular and were no longer under the Church of Rome. Each king of each nation state had his absolute power without any control from the people or the Pope. The monarchic institution had absolute power. The formation of the nation state represented the institution of power and anger.

The reformation, led by Martin Luther, advocated for direct communication between human beings and God. It also advocated for the simple life of an agrarian society in traditional Europe. Had Luther's plans become a reality, the dimension of spirituality in human beings could have been improved with the changed situation. Unfortunately, the age had completely changed with the institutionalization of greed, resulting from mercantilism backed by colonialism. As a result of this, John Calvin's adjustments of the faith to allow it to be more consistent with the age of craving resulted in the introduction of the puritan ethic. Such ethic was consistent with the rapid expansion of capitalism. He explained that the goal of all human beings was to return to the Kingdom of God. However, such privilege must be tested and approved before granted. The test consisted of working hard and living a frugal life. Nevertheless, such efforts were more consistent with human greed and resulting from economic evolution of the age.

At the same time, new scientific discoveries had the effect of shaking religious teaching at its very foundation. The discoveries of Nicolaus Copernicus (1473-1543), Johannes Kepler, (1571-1630) and Galileo Galilei (1564-1642) resulted in a different explanation of the world. The world was no longer the center of the universe as explained by Ptolemy and supported by the Church for more than a thousand years before this. (Capra, 1988:54) Moreover, the scientific revolution at that time resulted in clear division between matter (material) and mind. Galileo was an astronomer who used mathematical language with scientific testing. This new tradition of explanation provided the new venue for scientists to explain natural

phenomenon by mathematics. More importantly, Galileo also suggested that scientists should pay attention to matter only, for examples, its shape, its quantity, its motion. All were subject to quantitative calculation.

After Galileo, in England there was an empiricist by the name of Francis Bacon (1561-1626). He attacked traditional thought and valued by empirical evidences through scientific tests. His writing resulted in the trends in searching for new scientific knowledge. Such knowledge should be used for the control of nature. He explained that "we should torture the nature to the point that it must reveal the secret". From that time on the attitude toward the world and nature for common co-existence of lives was changed to that of mechanism. Such an attitude was popularized by René Descartes (1596-1650) and Isaac Newton (1642-1727) (Saneh, 1998: 128-129).

The most important contribution of Descartes was the principle for perfect understanding of nature. Nature could be understood by disaggregating the problem into smaller parts, examining each part in details, then, reassembling all the parts back into one whole through logic. Mathematics was the most important tool for such analysis. As a result, Descartes explained nature completely in the form of mechanism like any perfect engine operated under the clearly defined rule in science. The discovery of the law of gravity of the solar system by Newton endorsed the mechanistic world view completely. As science developed to that point, faith in God was shaken, especially when each person could communicate with God directly without any need for an intercessor. In absence of the intercessor that served as a catalyst, while scientific progress at that time was more convincing and the existing faith in God was diminishing, the relationship between human beings and God became more distant. It was one condition for further deterioration in spirituality developing in Western civilization.

The whole development of scientific though in the period was the process of institutionalization of *moha* or delusion. Human beings, at that time were proud of such scientific knowledge. Although such knowledge was correct, it was only partially correct. Unfortunately, it was mistakenly claimed that it was the only way to understand the nature. It could be said that from 15th to 17th centuries, greed, anger and hatred, and delusion had become completely institutionalized. It was therefore almost impossible that the following period could move away from this framework of modernization. It can be concluded that the 15th century marked the beginning of the degeneration of Western civilization. It was the beginning of the emphasis on materialism. The spiritual part which has always been and is the most important part of human being was excluded from the so called "academic analysis" during and after that time. The subject of economics, although it was not yet known by that name, was not an exception. Being controlled by the greed, anger, hatred, and delusion that had already been institutionalized by the middle of the 17th century, human thought in the age of modernization was to sway to only one extreme, the way of *kilesa* or defilement. This bias finally became a great handicap for the evolution of *paññā*. The development into the age of modernization was actually the age of ignorance or *avijja*, by the standard of its true nature.

It should be explained that even in the age of post modern beginning in the 20th century, with its emphasis on pluralism and diversity, Western science still cannot adequately explain why such diversification of knowledge and understanding must be so. This failure of being able to do so is because it does not have adequate tools for a systematic analysis of the mind. The most important part of knowledge for everyone is the knowledge from direct experience. This is the knowledge emphasized in Buddhism. Such knowledge depends on mental development (through *sikkhattaya* consisting of *sila*, *samadhi*, and *paññā*).

The mind with a higher level of development will understand the truth differently from one with lower development. The mind that has been developed to a higher level will understand everything closer to its true nature. At the highest level, the mind will understand everything clearly without any doubt. This method of analysis is also a scientific one, because the minds with the same level of development will understand the same things in the same ways. The most difficult part for material based mechanical science to understand is why the truth can be different for different levels of mental development. Clearly, such science will never be able to understand the nature and the work of the mind, because it only treats the mind as matter. Science that is referred to, in this discussion is a science based on the development of the

mind, is beyond the knowledge of a science based on matter. Naturally a Western scientist who only understands a science based only on matter claiming that the science based on the development of the mind is non-scientific can be absolutely understood. In this case, the person only understands half of the truth, not the whole truth but claims to understand the whole. In fact, Buddhism is not a religion by a Western definition. It is a science based on the development of the mind and is yet to be discovered and fully understood in Western world.

Having inadequate tools for the systematic analysis of the mind is the major problem resulting in limitations in the development of knowledge and understanding of a human being and a human mind caused by the evolution of Western civilization.

Hobbes, Locke and Smith, Who Connected Western Science to Social Sciences and Economics

Beginning in the middle of the 15th century Europe and the entirety of Western civilization has been dominated by institutionalized greed, anger and hatred, and delusion. Other thinking in other fields has developed in the same direction. Thomas Hobbes (1588-1679) can be considered to be a contemporary to René Descartes and Isaac Newton. He can be considered as being an ultra materialism in a different way than the term is understood today. He challenged the concept of God as absolute. He claimed that nothing was as absolute as matter (material). If God really existed, He must have a body that could be detected. His argument actually implies that God does not exist. A deeper understanding of his argument implies the unimportance of human spirituality. In other words, Hobbes like Descartes only understood a human being as a material being, as a part of a machine. He argued further that as God was dead, it was irrational to rely on God for anything. The only "God" that would be with humanity eternally was peace and self protection. These were functions most effectively and efficiently served by the king. The king should be given absolute power to ensure security and personal rights for everyone instead of God. Without any dimension of spirituality, Hobbes identified goodness as hedonism or anything that would result in pleasure. Badness was pain. This concept has become the intrinsic value embedded in the ethic of currently economic rationalism.

Similar to Hobbes, Locke (1632-1704) was also a contemporary of Newton. Locke built his experience as a medical student where he was influenced by the scientific thought that had already developed into an institution of delusion as described above. This mechanistic model and the inspiration of Newton motivated Locke to find a social law to explain social gravity the same way as the gravity functioned in the solar system. He compared each individual in a society to an atom in a matter, while a matter was used as an analogy for a society. Atoms were held together in matter by natural gravity. If a human society is similar to matter, the society must have some social gravity to hold all of its members together. The analogy of each member as an atom was the influence of Hobbes. After that, Locke concluded that such gravity is comparable to self-interest. The fact that each member gave up part of their own sovereignty to the society or the state was for their own self-interest and for the protection of the person's rights especially property rights in the form of a social contract. Motivated by self-interest, everyone was willing to sacrifice complete freedom of the individual for mutual protection of life, freedom, and property, the same way as Hobbes' explanation of giving up part of individual sovereignty to the king for personal security. Locke also introduced a utilitarian standard similar to that of Hobbes. The utility is from creating or generating pleasure, while disutility results from displeasure or pain. This standard was developed into the utility theory currently used in mainstream economics.

The work of Smith (1723-1790) developed further from this idea, by introducing the market and market mechanism to operate as social mechanics to explain why each individual action motivated by self-interest could also become social virtue. The main reason was that the system of price mechanism operated like an invisible hand in the market. An additional factor introduced by Smith for clearer explanation, was the division of labor. The division of labor provided two additional functions. Firstly, it would raise the productivity of each individual worker to a higher level. Secondly, it became necessary for the existence of a market for exchanging products. The market would perform its function most efficiently under the condition of perfect competition. This condition required numerous buyers and sellers in the market at

the same time. Under this condition, the market would perform its function smoothly. If something were to go wrong in the market, such as more demand or less supply, the market would send a signal through the price mechanism. The result would be adjustment on the parts of producers and/or consumers. In the end a new equilibrium would be reached.

This explanation by Smith resulted in the theory of social gravity introduced by Locke, explaining self-interest. From this new theory, perfection of everything could be systematically explained. The same way as mechanistic physics that explained the Newton's theory of gravity of the solar system. The combination of the logic of Newton, Hobbes, Locke and Smith provided a clear and elegant explanation that was much more convincing. Unfortunately, no one had ever considered that human beings under that system of division of labor were reduced to be mere parts of the machine. This situation had made the analogy of an atom to a human being to be close to what Locke originally explained. There was no need to pay any attention a nature of creativity of a human being. As Ruskin (1819-1900) observed, there was a big loss in the power of creativity which had been the most valuable contribution of human beings. Division of labor and mass-production was a process that took time for pleasure away from workers and finally took the workers' spirit. These issues did not receive adequate interest during that time or even currently because the emphasis then was on division of labor aiming at increasing labor productivity, in order to increase overall productivity, the origin of the wealth of the nation. On this issue Sismondi (1773-1842) had observed that, the wealth did not mean much, if it did not help to improve the welfare for all. At least, it should provide some assurance that the lives of the majority would not be worse off. All these argument reflected the fact that the work of Smith resulted in the degradation of good quality human beings to the level of a mechanism.

Apart from being dehumanized to simply a mechanism, Smith's proposal resulted in a shift in focus from individual welfare to the wealth of the nation to be understood as social or material welfare. At the same time, the market had become the focal point, while a human being was reduced to be a part of the machine. Not surprisingly, human beings had gradually been reduced in importance in the whole economic activity. The only focal point remaining was the well being of the national economy. Under globalization or "the world without frontier", the national economy is even disappearing. The most important economic activity remaining in focus is the health of the market.

However, it may not be totally fair to accuse Adam Smith as the first economist who explained the market economy in mechanistic relationship. Smith himself was a Professor in Moral Philosophy. He also valued human beings and argued that laboring was important for spirituality. As a result, human work had a value of its own. His ideas on this matter reflected the thought on the labor value theory. This thought was further developed by Marx into the theory of the value of a commodity and surplus value. At the same time Smith did not think highly of property. He said that a person without property should not necessary be down graded, for happiness was more essential to life. Property only provided a little convenience to the body with the high cost of anxiety for keeping and maintaining it. It could also bring about possible danger to the owner. (Smith, 1982:182-185) Nevertheless, his main focus was the division of labor, the work of the market mechanism and the wealth of the nation. These issues received much stronger attention from economists after him. The part that reflected human value was completely neglected.

Mill, Marshall, Samuelson and Friedman and Market Efficiency - At Last

It can be said that John Stuart Mill (1806-1873) was the last generation of economist from the age of enlightenment. He showed some concern for humanity. It was because Mill still recognized the significance of the laws of distribution. He explained that the distribution of products must be done according to the laws or social traditions. Mill once said he wished to see an egalitarian society in which everyone had their basic needs sufficiently met and people didn't crave more but rather cared for the feelings and perceptions of their neighbors. He also indicated that he felt that this came from human virtue that was cultured in each individual. This would certainly reflect why he did not agree with the hedonism of Jeremy Bentham (1748-1832) since it overlooked the other half of human feeling and emotion.

At the same time, Mill also accepted as an acceptable assumption an effort of a human being to seek for wealth. It reflected the sensual pleasure of a human being. This statement reflects another major turning point in economics from using reasoning based on empirical evidence to explain situations to the use of assumptions. This resulted in economists after Mill from Alfred Marshall (1842-1924) on, to further explain that a human being was an economic man or a *homo oekonomicus*. This assumption remains even today as an implicit assumption in economics. There has never been any attempt to reexamine whether this assumption is consistent with the true nature of human beings. It results in the greatest deterioration of mainstream economics.

The proposal of the theory of relativity by Albert Einstein (1879-1955) indicated that the Newtonian's gravity theory was only a specific case of the relativity theory. This concept brought about another major shaking of the scientific foundational belief in problems having one absolute answer. The Great Depression began in the late 1920's and shook the belief in self-adjustment of the market previously explained by classical economists. The conditions of unemployment and the inability of the market to self-adjust clearly reflected the market failure. The situation gave rise to Keynesian (1883-1946) economics. John Maynard Keynes proposed the intervention of the government into the failed market system. The idea was applied in the United States of America, with great success. Einstein's ideas were applied to economics by arguing that the classical theory of full-employment is only a specific case of unemployment theory. The general or most frequent cases are some general unemployment. This successful result supported the findings of the Einstein's theory of relativity that demonstrated that the Newtonian theory of gravity is only a specific case. According to Keynes, the market is always inefficient. It requires government's intervention to make it function properly.

Keynes' argument and findings resulted in his general theory in economics, in order to achieve the same status as relativity theory of Einstein in physics. The two theories both apply mathematics as the most important analytical tool. This situation helps elevate mathematics to its peak as the only tool for analyzing everything scientifically. Paul Samuelson (1915-), a renowned economist in the 20th century rose to his fame on this belief. He was able to use mathematics to represent all possible economic relationships. Economics reached a new status of being a hard science along with physics, mathematics, and engineering. It was considered to be different from other social sciences such as political science, sociology, and other related subjects that still required qualitative analysis and were considered as soft sciences. In fact, it's tantamount to make economics completely mechanistic. It claims that it can find any answer for any problem through a set of assumptions with a single caveat: it is not necessary to deal with reality. The most severe assumption is Marshall's application of Mill's assumption about human beings.

As economics has become a hard science, in reality it has become inflexible and cannot actually be applied to reality. It is only good for analysis of things of a mechanistic nature. In economics, the thing that operates in this nature is the market. With such an inflexible tool, the only thing that such the tool can effectively deal with is the market. Since 1930, the focus of the economic subject is only the market. What both Keynes and Samuelson tried to do was to improve market efficiency, with the explanation that in general cases the market will not be able to function satisfactorily. As a result, a condition of varying degrees of unemployment will be the more general case. There is only one specific case when the market can perform its function perfectly. That is the condition of full employment. This case is the one claimed by classical economists to be the one and only case (like that law of gravity in Newtonian physics.) According to Keynes and Samuelson, even though in a general case the market cannot perform its function perfectly, the problem can be solved by government intervention through fiscal and/or monetary policies. This way all major economic problems can be easily solved.

Unfortunately since the middle of the 1960's, it has been proven that the government can not effectively intervene into the functioning of the market. It was Milton Friedman (1912-) (who was influenced by both Herbert Spencer (1820-1903) and Albert Einstein) that pointed out that in reality both the government and its machinery for implementation (government officials), all had their own vested interests. Any measure designed to solve any problem for the public, it will always be distorted. Instead of allowing the government or its officials to intervene in the market, the market should be allowed to operate freely. In

order to achieve the designated target, there must be a proper set of incentive systems and it should be made known to all, so that everyone would acknowledge and understand. After that, the market mechanism should be allowed to operate fully independently. This way the market would achieve its own efficiency. His thought has influenced current economic thought, especially global mainstream economics in countries with materially oriented economic systems together with firm rooted representative democracies. It can be seen clearly at this point of development, apart from the fact that a human being can hardly be mentioned, the significance of the national economy is also greatly reduced. The only issue remaining is market efficiency.

Smith (1723-1790) was well aware of the undesirable consequences of greed that was transformed into an institution through mercantilism, together with colonialism and its close cooperation between the king and traders in the form of limited corporations. He attacked such undertakings as inefficient economic activities. Since the emergence of the institution of greed in the middle of the 15the century, it has increased in its strength especially in the age of globalization. The institution of greed still exists with firmer roots than before. This is due to the co-existence of both capitalism and the corporation. After the gradual decline of the nation state, the corporation has further developed into a transnational corporation. The trading items are not only limited to commodities and services. Assets and money have also been commoditized. In parallel to these developments, there has also been continual evolution of money from originally as a commodity to a shell, to metal, to paper. It has currently evolved to the form of figures in a computer system. Financial systems can be linked through cyber with instantaneous communications. This results in the ability of money to move around the world in great quantities within very short periods of time. Under these circumstances, the influence of the transnational corporation is not limited to only control over the government of the nation states but also covers most multi-lateral organizations as well. Among these organizations are the World Bank, the International Monetary Fund and the World Trade Organization. (See Korten, 1996: 159-1981)

As places all over the world have been opened up to free market, direct and indirect benefits are concentrated in the hands of transnational corporations who have both significant economic and political power almost everywhere in the world. It is no longer difficult for these few transnational corporations to pressure more countries to open the global space to free markets. The demand that pushes for the free market is the combined forces of the movement for market efficiency and libertarianism developed from a concept of Sigmund Freud (1856-1939). Those who support the idea are both the mainstream economists (especially the ones under the sway of Milton Friedman) and the ultra moralist camp. These two groups are not prepared to examine the truth at its core. Both groups provide academic justification and moral reasoning in order to serve the interest of the corporations. The corporations themselves serve as the third party in a united front. They are the ones who reap the benefits directly and manage everything from behind the scenes to have the two former groups supporting them (Korten, 1996: 72-73). In order to build universal support and generate a strong call for free trade everywhere in the world, these corporations have mobilized their huge resources to control most of the important media outlets such as television, the press and global internet networks. (Korten, 1996:152-153)

Such concerted efforts result in a strong call for market libertarianism. It is a system that will completely destroy human values. This system will generate increasing utilization of resources at an accelerating pace. It is a system that has generated economic crisis here and there all the time. Just since 1994 we have seen financial crises in Mexico, Thailand and the Far-east as well as Southeast Asia, followed by Russia, Brazil, and Argentina, and most recently (2008) starting in the United States and spreading to Europe and all over the world. All of these have been generated by this system.

This system is a system of self-destruction. It does not only destroy those who are directly affected by it, but also those who benefit from it in the short run, and in the future as well. Those who benefit from it in the short run may not realize that the benefits received will in turn destroy them in the long run too. Although, part of those who receive short run benefits from it, are well aware of the severe consequences of their actions. They are only a minority that cannot oppose or obstruct such severe trends. Those from the

minority who try to obstruct the work of such a depressive, dismal or catastrophic system will eventually be destroyed in the process.

For the reasons explained above, the right way out of such a possible human catastrophe is to return (or a change) to Buddhist thought consisting of mindfulness and *paññna*. This way, the majority can examine the root causes of the problem and to understand everything in its own nature. After that, solutions must be sought after through changing a people's attitude as well as their method of thinking. Later on, such knowledge and understanding should be expanded to much wider circles. As *paññna* begins to expand to much larger circles, especially to those persons who are part of the root-cause of the problem, they will understand that in the long run the adverse consequences will affect them as well. This way attempts to change the course of development can take place. This will eventually result in an accelerated pace in solving such problems.

The time has come to start examining economic theories developed under the direction of Buddhist economics. The current economics has already turned into *avijja* or ignorance leading in the end to human catastrophe. The main reason is because the mainstream economics is based on *micchaditthi* or wrong theories. It is time to return to an examination of the theories in Buddhist Economics that will be thoroughly discussed in the two following chapters.

Chapter 10
Examples of Theories in Buddhist Economics: Overview and Production Theory

The Results of Introducing Part of Human Nature to Represent the Whole

The emphasis of this study is to find the causes of alienation from human nature of mainstream economics. At the same time, it also introduces the concept of the five aggregates, a tool to understand various functions of a human mind. The Five Aggregates (*pañcakkhadha)* look at the causally conditioned elements of a human being in order to gain an in depth understanding of *dukkha* and *sukha* as well as the process of accumulation of *paññа*. In earlier chapters the tools available in Buddha Dhamma were applied and the mind of a human being was analyzed in order to gain additional understanding of how mainstream economics developed from Western civilization and resulted in alienation from human nature. It was demonstrated that economics has an inadequate understanding of human nature. Its theories have been constructed from assumptions without due consideration of their relevancy. The end result has been an economic system based on unrealistic assumptions resulting in complete alienation from human beings. This system will finally result in human destruction.

Admittedly, the introduction of theories of Buddhist Economics in this study should be treated as a preliminary attempt. It has not been fully developed as a complete system yet. What will be introduced in this study should serve only as examples. It only deals in general with the most fundamental theories in economics first. Nevertheless, such examples can actually be applied to many economics subjects that have not been linked in mechanistic way with the monetary or market systems. It can be well applied to all of the so called real sector economies. Such application will be discussed after chapter eleven. If the reduction or elimination of greed together with proper methods of risk management are introduced, Buddhist Economics can also be applied to the monetary sector as well. In the real economic sector especially the ones directly related to human beings such as development economics, the economics of education, and human resources, labor economics, public health economics, natural resource economics, and the economics of environment and ecology. There will be some application of Buddhist Economics theories to these economics subjects from chapter twelve onward. The parts that are highly mechanistic and not directly related to human beings such as monetary economics, finance, and international trade will not be considered in this study. The author prefers to see Buddhist Economics having its roots firm before applying it to the monetary or financial sectors and such application should be dealt with later on.

A Firm Stand of Buddhist Economics Theory

The goal of Buddhist thought for human beings is the same as human nature everywhere in the world. This goal is to achieve a long-lasting peace and tranquility or *sukha* without any pain (*dukkha)*. It must be *sukha* at the level of *niramissukha* or *sukha* from non-acquisition. This level of *sukha* includes *jhanasukha* (*sukha* from meditation) and *vimuttisukha* (*sukha* from complete emancipation from all defilements). However, if a human being still does not understand *sukha* at a level higher than *kamasukha*, the person can still aim at the level of *kamasukha*. The only caution is that such acquisition, in order to have *kamasukha* must be done with care. It must not cause any burden to oneself and at the same time, not cause any burden to any other living things. This qualification is needed because if a burden is being imposed on anyone, it will be no longer certain whether the consequence will be *sukha* since *dukkha* will also increase in that case.

Therefore, seeking for *kamasukha* under the condition of no additional burden on any party is acceptable in *Buddha Dhamma*. As for which case that will be considered as not causing additional burden to anyone, the answer already exists in the Noble Eight Fold Path that can be reduced to *sila*, *samadhi*, and

paññа as discussed earlier. Only by actually accepting the Noble Eight Fold Path and the required continuous training to the point of self actualization. It is a required process in *Buddha Dhamma*. In turn, it requires a thorough understanding of the functioning of *pañcakkhadha* through actual self drilling to the point of understanding the meaning of *samatha*, *samadhi*, and *vipassana* to the point of full consciousness and full understanding the uncertainty of everything.

Being fully aware or having full consciousness is the state of mind that allows all information passing through from the outside world to be captured without any distortion, so that it allows *sampajaññа* or clear comprehension to examine the information in order to gain a thorough understanding of it. For this to be effective, the mind must be under the condition of non-distortion of *saññа* or perception as well as the state of neutrality of *sankhara* or volitional activities. Under these conditions everything will be understood in its own nature. *Paññа* will know clearly and exactly what is right or wrong, good or bad. This situation implies human rationality (or reasonableness) in the true sense. At this point a person will gain a thorough understanding based on their own experience. In the beginning such understanding may still be unclear. What it means to cause no burden on oneself and the others will become clearer later on.

As a result, the understanding of any concept through reasoning does not mean much if the real meaning of the word has never been actualized through practice. This is a point of clear departure of Buddhist Economics from Western economics. Such economics usually begins by providing a definition and a set of assumptions and analytical rules. After that, a process of logical deduction will be applied in order to lead to some conclusion. Such conclusion may not be consistent with reality. Nevertheless, the strength of this method is that given the same set of assumptions and the same analytical rules, a person with a certain level of intellectual ability that does not require a high level of *sati* and *paññа* will reach the same conclusion every time. This experiment can be performed anywhere and anytime; the result, without exception, will still be the same. The whole experimental process described here by the standard of Newtonian physics on which the mainstream economics is based on will be referred to as the "scientific process". Such a concept implies that it can be tested and proven that the answer will be the same all the time. However, whether such an answer will reflect reality is another question. Unfortunately, there is a general belief that if the whole process is a "scientific process", the result must be reliable. Such a belief is rather dangerous, because it is a belief that contradicts one rule of the *kalamasutta*, namely, the belief is based on facts that are logical and it is not trust worthy. Sometimes, the belief is due only to induction such as the belief of John Locke who believed in the concept of self-interest that was inspired by the theory of Newton's law of universal gravity. The belief from induction is not sufficient to be relied on. The danger of such a belief is clearly harmful to humanity, as already explained in the previous chapter.

Unfortunately, the above explanation of this nature cannot be done in the form of actual practice at the same time. It can only be used to generate some common understanding. Given the said limitation, the emphasis of all theories in Buddhist Economics is to achieve the objective of *sukha* without causing any burden to oneself or others. There is a level of *sukha* higher than *samissukha* or *kamasukha* and it is known as *niramissukha*. It is *sukha* without acquisition or consumption. The ultimate goal of this level of *sukha* is to be completely free from all defilements, a state known as *vimuttisukha*.

Such knowledge must be gained only through self-actualization or self-enlightenment through the process of continual training and practice to reach the point that all of the concepts are thoroughly understood.

Examples of Buddhist Economics Theories

The goal of Buddhist Economics is for human beings to achieve *sukha* without causing any burden to oneself or others. Although, the theories developed up to this point do not systematically cover all areas of economics, this objective can actually be used to develop newly related theories to fit the ones that will be developed later on. The examples of theories that will be discussed in this book should be sufficient for further development. All the theories that will be discussed here are already considered to be the core theories in mainstream economics. If such theories are understood from the point of view of Buddhist Economics, it should be sufficient to inspire and guide the adaptation to other related theories. Seven

theories will be discussed in this book. They cover the four core theories in economics. These are production theory, consumption theory, utility theory and distribution theory. Three other applied theories will also be introduced. They are time use theory, the theory of economizing and the theory of work satisfaction.

Production Theory is the core theory of economics. Its main emphasis is efficiency in production. Unfortunately in most cases, it does not take into consideration excessive production to the point of destructive use of resources and the environment. At the same time, it tends to overlook the most important factor of production in Buddhist Economics, *paññna*. Production theory in Buddhist Economics will demonstrate how *paññna* is the most important factor of production. It is more important than any other factors of production available. *Paññna* will divert the production process away from destruction of resources and the environment. This important function for *paññna* is missing from mainstream economics.

The next theory to be discussed is consumption theory. This theory is considered as the weakest spot in mainstream economics. It is because the main purpose of consumption is to maximize utility, while in Buddhist Economics utility is explained as satisfaction or gratification from consuming in order to achieve *kamasukha*. In other words, in mainstream economics, consumption is encouraged and it is a way to stimulate cravings to be active all the time. Anyone who has enough income to spend has the right to consume. However, if those who are wealthy have no saturation of *kamasukha*, consumption will be stimulated to desire even more. Capital and all other resources will be put to use at a much more accelerated pace in order to satisfy the consumers with high purchasing power. In fact consumption can not eliminate or reduce cravings. More consumption will in fact, stimulate more cravings, the same as a drug addict who always desires more, with the result of harming the addict both physically and mentally.

The thing that will definitely end the desire for *kamasukha* is *paññna*. It is the ability to understand everything in its own nature to help a person to understand that *kamasukha* cannot be achieved through being satisfied. Also *sukha* will not be the result of consumption with the aim to achieve *kamasukha*. In most cases, it will result in *dukkha*. Those who have a true understanding of the nature of *kamasukha* will eventually lose their desire for it. In Buddhist Economics, the only consumption needed that required to end *dukkha* resulting from physiological needs or biological needs. If such needs have not been satisfied, proper functioning of the body will not be possible. Under such circumstances, it will be impossible for *paññna* to emerge. Without *paññna*, the ability to do good things for oneself as well as others will not be possible. If consumption is kept at the level required to maintain life according to physiological or biological needs, efficiency in consumption can also be specified. This is the blind area of mainstream economics, since it has never discussed the concept of efficiency in consumption in a meaningful way. Actually, Buddhist Economics can also clearly demonstrate that production and consumption are not two different things that should be discussed separately. They must be linked together through *paññna*.

The third theory that will be introduced is utility theory. The reason for explaining this theory is because the understanding from the West is not deep enough. It only explains pleasure from *kamasukha* or pleasure gained from acquisition. It is the concept inherited from Hobbes, Locke and Bentham that a human being seek maximum pleasure and try to avoid pain as much as possible.

Modern thought has degenerated from that of the middle ages. During the middle ages, the spiritual dimension still prevailed. The word utility also implied value in use or utilization. The English word "utility" translates into the Thai words *Atthaprayote*, but the word *attha* in *Buddha Dhamma* actually means, essence, benefit, and welfare. It implies the essence that will lead to the goal. In this case, the goal or the clear benefit gained from consumption is the benefit or essence for life as well as to help generate as much *sati* and *paññna* as possible. Mainstream economics developed since the Age of Enlightenment in Europe has reduced everything to exchange value. The concept of utility has been introduced in order to explain how prices of things are determined as utility is the factor behind the demand curve. Misunderstanding of the essence of consumption can easily lead to human catastrophe.

The forth theory is distribution theory. It is considered as the ultimate goal of economic activities, since the goal of production and consumption is to increase social welfare. The key issue is how to distribute

products in a way that it will be fair for the producer. Using the distribution rule in mainstream economics, the owner of the factor of production should be paid at the marginal productivity of that factor. Such compensation is considered to be fair. That means everyone will be satisfied resulting in maximum welfare for the society. In this respect, Buddhist Economics has its own clear stand. It aims for all living things to co-exist in peace and harmony with minimum burden to oneself as well as others. As long as *dukkha* still exists for any individual, the society any other living being, it must be alleviated without any exception. *Dukkha* that results from physiological needs must be relieved without any reference to the ability to produce. The theory of distribution of Buddhist Economics is close to that of socialism or the welfare state.

These four theories are said to be the most important ones in economics. They should be reinterpreted for better understanding using Buddhist Economics. Three other theories to consider are time-use theories, the theory of economizing and theory of work satisfaction. The theory of time use in economics is normally explained by treating the time factor as a commodity. It tries to explain how time should be used or consumed for the highest benefit. Actually, time has been allocated to all human beings rather equally in its own nature (it only depends on biological needs of each individuals that may not be exactly the same). In Buddhist Economics, it is more of a question of how to use our time in such a way that *sukha* can be received most of the time under the condition that there will be no burden on oneself as any others.

The theory of economizing is developed after the time-use theory. It emphasizes maximum utilization of limited resources. The main purpose is to reduce any form of burden on all other things including nature and environment. If there is some, it must be the least possible. This objective can be achieved under the conditions that a person knows how to use the time to achieve *sukha* at the same time. This concept is close to that of deep ecology developed in the West.

The last example of how to apply Buddhist Economic theory is how to seek *sukha* from work. Western economics views working as pain or *dukkha*. This understanding began from the time of the Industrial Revolution in the 18th Century in England, where working conditions were very harsh and often with exploitation of employees by employers. Actually work does not have to be that way. One can achieve *sukha* from work. If work can actually result in *sukha*, the theory of work and employment can be radically different from what exists in Western economics.

All those theories are introduced to provoke thought as well as to demonstrate that there are ways to develop more Buddhist Economics theories. Anyone who understands the principles in *Buddha Dhamma* well enough, will be in a position to develop the new Buddhist Economics theories demonstrated above.

New theories can be developed or existing theories improved further. From here on, each theory will be discussed in more details.

Theory of Production

The first activity related to economic wealth begins with production. Production is considered as the most important starting point in economics. The concepts in mainstream economics will be discussed first. Product is the output resulting from the relationship between the factors of production and the production process. If it is related to agriculture product, the factors of production are usually land, labor, and capital. If it is related to production of industrial goods or services, the most important factors of production will be reduced to only two, namely, labor and capital, since the size of land is not of much relevance. It only serves as the location for the factory or as a place to offer services. Occasionally management is also included as another factor of production. Economists are only interested in explaining the relationship between the factors of production and output product or service leaving the understanding of the production process to engineers.

Normally the production relation known as production theory can be shown in the following of mathematical relationship.

$$Q = f(K, L)$$

Q = Output

K = Capital

L = Labor
f = The production function

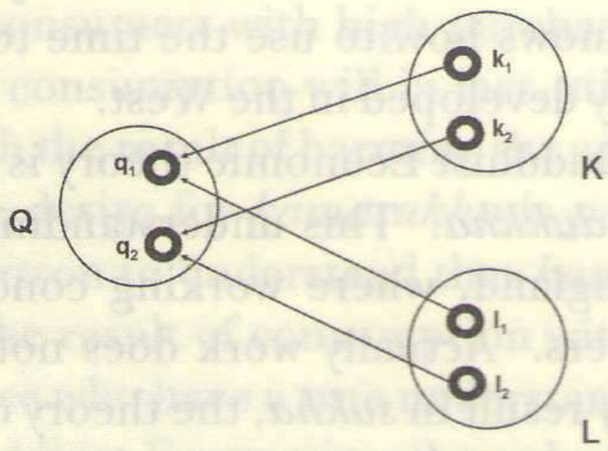
Please observe that the sign f(---) has important mathematical meaning as mapping. In this case f(K,L) is the process that changes capital and labor into output. It can be traced back how much capital and labor must be used in order to gain one unit of output. This relationship can be represented by the sign (=), that is Q = f(K,L) or it can be shown diagrammatically as follows.

In the K space and the L space, there have been mutual mappings of both k_1 and l_1 into the output of q_1, and at q_2 there have been a mutual mapping of k_2 and l_2 from K and L spaces into the Q space.

Observe also that the arrow head indicates the change in one direction, namely, from K and L to Q or (K, L) → Q. That is a point in the Q space has been determined by one or more points in K space and/or L space. The reverse is not possible, namely a point in space Q cannot determine a point in space K or space L. The nature of this relationship is known as an irreversible one. It implies the meaning of the word "function". Apart from this relationship, this is known as an implicit function. If this function is made explicit in the following manner, it implies in addition that a specific form of technology is also included in this production process. As examples:

$$Q = AK^{\alpha}L^{\beta} \quad \text{..... (1)}$$

or $$Q = A[\delta K^{-\rho} + (1-\delta)\, L^{-\rho}]^{-1/\rho} \quad \text{..... (2)}$$



The first function is specifically known as Cobb-Douglas production function. The second one is known as the Constant Elasticity of Substitution or CES production function. There can be many other such explicit relationships. Each implies a different technology used in the production process.

The forms that are most often used in economics are Cobb-Douglas and CES production functions. The functions contain only K and L as factors of production. The meaning implicit in such a relationship is that the production process is the process for producing industrial goods or services only, because there is no land or any other factors of production to indicate other wise. If one interprets this relationship in aggregate form, it actually implies that it is only production in the industrialized and/or service economies of a country that is basically involved.

It should also be observed in addition that this relationship aims more at mathematical tractability, even though it also tries to reflect the real world. Unfortunately, if the weights are being distributed between the representation of the real world and mathematical tractability, the weight will go more to the latter than the former. This is due to the fact that the usefulness of the mathematical relationship is its ability to come up with a neat solution. If the relationship is not tractable, the said mathematical relationship will be much less useful because it will serve only as a short hand that can be used to elaborate details later on. In that case, the mathematics will useless. While mainstream economics attributes a significant role to mathematics, Buddhist Economics emphasizes *paññā*, the ability to understand everything in its own nature. The neglect of the real world relationships in mainstream economics result in the distortion of fact in favor of mathematical tractability. Consequently, the theory results in an incorrect theory generated from mistaken or wrong beliefs.

From this situation of *micchaditthi* or wrong belief, during the 1960's and 1970's the Cobb-Douglas production function was widely used because of its mathematical tractability. Especially, the estimation of

parameters through econometrics from quantitative relationship between outputs and inputs consisting of capital and labor, together with one specific characteristic of this production function, namely, if $\alpha + \beta = 1$, this function will result in a constant return to scale. This condition is also consistent with the assumption of perfect competition. Each factor of production will receive its share at its marginal productivity. All outputs will be distributed according to the share of each factor of production. It can be seen clearly that the popularity of this specific case from the Cobb-Douglas production function is based on its mathematical tractability together with a theory that appears to be a good one but does not reflect reality. As Phra Dhammapitaka (P. A. Payutto, 1999) often explains, the fact that there is a human consensus on certain things about the nature but such consensus cannot change the real nature of the things. In other words, human consensus can never change the real nature of things to what it wishes them to be. The production functions in economics during the 1960's and the 1970's actually are of the said nature.

It should be observed further that apart from excluding land as a factor of production, it did not include resources and energy as factors of production either. The explanation for this exclusion is that those factors can actually be included in the calculation as part of the costs of production and will be reflected in cost of capital. Therefore, the most important factor of production is capital. It should also be noted that labor can be bought with capital as well. This emphasis (intended or not) has capital as the most important factor of production in this production function. In other words capital is the mode of production. Therefore, capitalism is the dominant ideology behind the said mathematical relationship. As the production relation is shown in the functional relationship, it implies it is the capitalistic mode of production. This production function can be applied to the countries that have moved beyond being agriculture dominated countries. Therefore, such a production function cannot generally represent production of all commodities. Such a claim on the nature of generalization can not be justified from the outset.

Exclusion of factors of production especially resources and energy, results in undesirable consequences. The most obvious one is the disregard of the limitation of resources and energy available on this earth. Given the said functional relationship, it also implies that such factors can be obtained for the production purpose at anytime. Such neglect indicates inadequate consideration of the limited resources and energy available on our planet. In other word it assumes unlimited resources and energy. Obviously, this assumption is not a realistic one. Following this assumption, it also follows that there is no limit to growth. From the existing functional relationship of $Q = f(K, L)$, it implies that if any factor of production (K and/or L) increase, Q must also increase. The exception is only in the case where the marginal productivity of capital or labor equals zero such that any increase in one factor of production that has a zero marginal productivity will not increase outputs. If the marginal productivity of a factor of production is negative, more of that factor of production will result in reduction of outputs. In reality a producer will not produce in that region. Therefore, in a more general case, if there is an increase in anyone of the two factors or both, outputs will increase. If this relationship is applied to the whole economy, it can be concluded that the economy can grow without end. Such a conclusion is not consistent with reality. In fact the implication of unlimited resources and energy has actually created the problems in the world. Resources and energy are being used beyond their renewable capacity. At the same time, pollution and the degradation of environment has become much more evidence. All of these happenings are due to having wrong theories or *micchaditti* as explained above.

The other weakness of this production function (and the most important one) is that in every production process, outputs from the process do not only consist of a finished product but also include waste. Waste has a negative impact on environment. Waste is one of the major costs of production. It creates a burden for human society. It must be eliminated. Otherwise, it will cause negative effects for human beings. Unfortunately in the production function, waste has not been explicitly included as part of the outputs.

One reason for this exclusion is because of the limitation of the mathematical relationship of a function. Functions, by definition have a single dependant variable. Its mathematical meanings are a point generated by mapping of one or more points from many other spaces. Therefore, if the relationship must

be shown in a functional form there must be only one dependent variable. If there is more than one dependent variable, the relationship cannot be shown in the functional form. In the case of production function, it cannot accommodate two dependent variables of waste (W) and product (Q) at the same time. One of the reasons is that mathematics is a subject aiming at precision. If the mapping of one or more points from one or more spaces results in more than one point in the target space, the points in the target space cannot be explained in terms of how they are derived from various independent spaces. Under this condition the precision of the mathematics will be greatly reduced. In such a case the application of mathematics will not serve its original purpose.

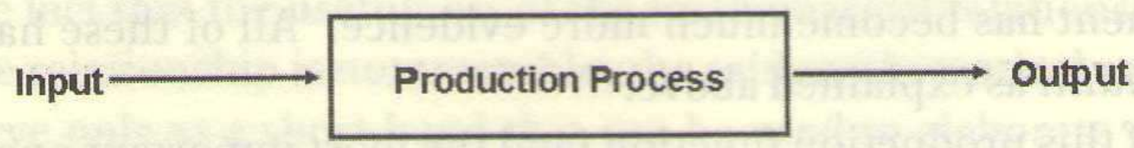
Therefore, choosing to demonstrate the clear mathematical relationship without due respect to the true nature of things, results in an unrealistic outcome. One way to solve this problem is through the technique of activity analysis. The relationship in the production activity is classified into two sets. The first set is between factors of production and waste. Factors of production of one activity can be outputs from other activities. All activities are related in the ways that all production activities are interdependent. Also, output of one activity may require its own input as well. Although all activities are interdependent in term of inputs and outputs, each activity is assumed to be independent. Again this assumption is not realistic since an activity that produces waste also depends on production activity, because the amount of waste depends on the amount of output or product.

Activity analysis will reduce error from the exclusion of waste from a production function. Unfortunately, it has not actually solved the problem of the unrealistic representation of the true nature of the actual relationship. It can only be used as the way to facilitate feasible computation. In order to gain a more realistic answer and in to facilitate such computation, an additional assumption is made, namely that each activity is in the form of a fixed coefficient production function, implying all relationships involved are linear. Again, this assumption is also unrealistic. Unfortunately, to be more realistic the relationship in the activity analysis must not be linear. Under this condition, the solution will be much more difficult. Even with the aid of a computer, the estimation of coefficients of all inputs may not be possible in the first place.

The clear stand of Buddhist Economics is to begin analyzing the problem from its true nature. If the relationship can be demonstrated mathematically, it is good to do so. Then the relationship and the consequential conclusion will be explicit and clearly understood. However, if it cannot be shown mathematically or it can only be done so with some distortion leading to misunderstanding later on, such distortion will result in closing the door to *paññā*. It is a source of ignorance (or not understanding everything in its own nature) also known as *avijja*.

Production Theory from a Buddhist Stand Point

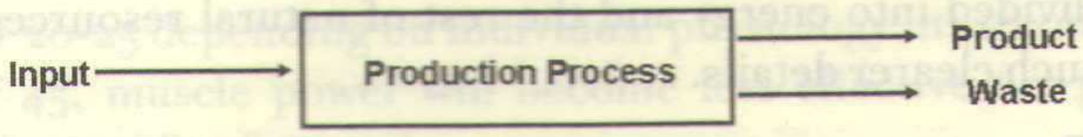
The stand of *Buddha Dhamma* for any analysis of any problem is to try to study or understand everything in its own nature without distortion. In analyzing production, one may begin from a relationship consisting of three parts, input, production process, and output. The observed relationship in this process is that some input flows into the production process. Having passed through the process, there will be output which is completely different from input. The said relationship can be shown as follows:



It is a general relationship without any details. As already explained, the output will be entirely different from the input. In order to clearly make such distinction, input will be renamed as resources. It can be anything that has not gone through this production process before. Some of the said resources may have passed through other production processes before, but not this one. After inputs pass through this production process, in order to make a clear distinction between resources and output, the out will be classified into product and waste.

At the same time, in order to gain a more realistic understanding of production, it should be further explained that production also implies destruction. All resources that have gone through the said production process will be completely changed from their original form. It can also be claimed that they have been completely destroyed in the production process because of the complete change from their original forms. The so called "output" is in fact a throughput since part of it will be used for consumption (which is in fact form of another production process). The other part will be used as resources in other production processes and the rest may be left in nature for their own natural changes.

To imitate the production function in mainstream economics, a relationship similar to it can be shown as follows:



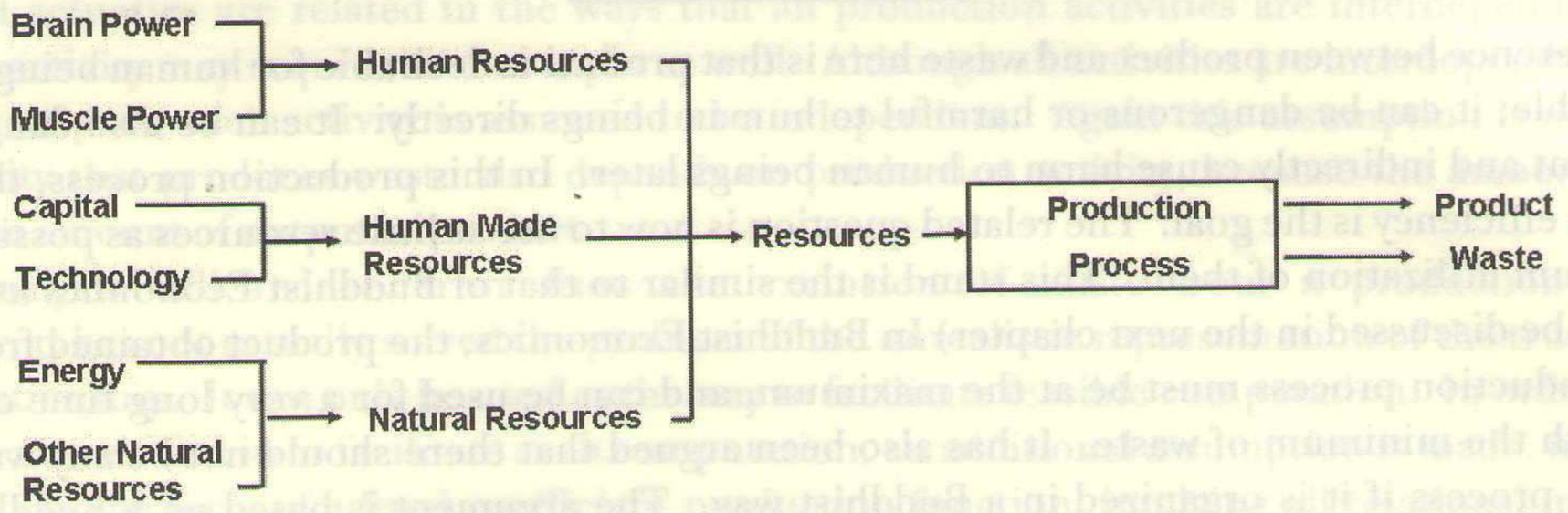
The difference between product and waste here is that product is desirable for human beings while waste is undesirable; it can be dangerous or harmful to human beings directly. It can be also dangerous to the environment and indirectly cause harm to human beings later. In this production process, the concept of production efficiency is the goal. The related question is how to use as little resources as possible and make the maximum utilization of them. This stand is the similar to that of Buddhist Economics as well. (More details will be discussed in the next chapter) In Buddhist Economics, the product obtained from resources and the production process must be at the maximum, and can be used for a very long time or is the most durable with the minimum of waste. It has also been argued that there should not be any waste from the production process if it is organized in a Buddhist way. The argument is based on a Buddhist goal that always aims at *sukha* for a human being without any burden to oneself or any others. Such argument can also be applied to application of "efficiency" in mainstream economics. However, in Buddhist Economics, it has much deeper meaning. Efficiency in mainstream economics only asks how to achieve maximum product from existing resources. It does not attempt to question further if the resources have been minimized. This is because mainstream economics assumes that the highest amount of output per unit of resource used already implies resource minimization. It does not give adequate attention to the accompanying waste. Taking waste into consideration and the cost of waste disposal; the actual resource use can be much more. In addition to that it does not take any consideration of burdening oneself or others. In mainstream economics this is considered a value judgment for each individual. It cannot be measured quantitatively by any unified standard. The end result in the production process may cause some burden to the others that will result in *"dukkha"*, even though the process is already the most efficient one by its own definition. For example, in the production process of a factory where workers have to do repetitious work the same as machines, the end result will be the devaluation of human beings. From the stand point of Buddhist Economics, the said process is not the most efficient one. The process has caused more *dukkha* for workers during the production process. The *sukha* gained from subsequent consumption may not be able to compensate the said *dukkha*.

This explanation may not be able to be developed into any acceptable quantification method. It can be subjected to the criticism that it is merely a value judgment without any valid measurement and therefore, it does not merit consideration. Unfortunately, the fact that it cannot be validly quantified does not mean that the real problem does not exist and should be disregarded. The *dukkha* from such process is in fact real. This example also shows that the attempt at distortion of reality through human convention or through an assumption that suffering from production has never occurred is invalid, the *dukkha* or suffering does actually exist. The stand of Buddhist Economics is to face reality and try to find a way to improve it. Instead of ignoring the existing problem, reality must be faced as the eventual results can be much more severe.

From the diagram above, it can be seen clearly that with only a little alteration, the production relation can be made clearer. More details are added to the side of resources, for clearer distinction of many forms of resources. Resources can actually be classified into three groups. Human resources, is the first

classification. Human beings should not be used as resources, but rather, human beings must serve as producers and consumers. The part that serves as a producer must serve as a resource. It is resources from human beings. Hence, it can be called human resources but there should be no intention to reduce a human being into a resource. Apart from being a resource, human beings are also capable of creating other resources known as *human made resources*. The final part is the resources available in nature. They should be called *natural resources*.

Analyzing resources from this angle (it can be analyzed from many other angles, if such analysis can reflect reality in its own nature), resources can be classified into three groups, human resources, human made resources and natural resources. Human resources can be further divided into brain power and muscle power. The human made resources can be subdivided into capital and technology. Natural resources can be further divided into energy and the rest of natural resources. This way the production relation can be shown in much clearer details.



Actually, resources cannot be distinctly separated from one another as being shown above, especially in dividing brain power and muscle power. This classification is only aimed at clearer understanding in the same way as the classification of a human being into five aggregates or *khandha* discussed in chapter nine.

Comparison of the Significance of Labor and the Brain

The emphasis of having labor as one factor of production has its origin from the Industrial Revolution in Europe. The word "labor" implies human activity. However, there is no clear distinction between brain power and muscle power. Usually, it cannot be distinctively classified this way, because in a production process there must be coordination of the work of muscle power and brain power. The proportion of the two powers may differ according to the nature of production. However, the benefit for such clear distinction is for an analytical purpose. It can be seen clearly the differer . effect of each resource on the production process, similar to the classification of output, into pro uct and waste. In mainstream economics only labor is considered as a factor of production. This emphasis may result in over-looking brain power and *pañña* which, in Buddhist Economics, is considered to be the most important factor of production or the mode of production for any economy. Classifying brain power that will eventually lead to *pañña* distinctively from labor or muscle power, it can remind us of the difference in emphasis between Buddhist Economics and mainstream economics.

In the analysis of mainstream economics, there is a need to classify labor into more details. It usually classifies labor by sex, age, and the level of education. Such classification reflects reality more than only considering the number of workers without any consideration of skills involved. Such classification reflects the different levels of skills in production. It also partly reflects the ability of the brain although not explicitly. The classification of brain power and *pañña* results in significant distinction between muscle power and brain power, as well, as the power of human mind. Without such a clear distinction, the emphasis will be more on capital as the mode of production. It over-looks the fact that human *sati* and *pañña* as the most important factors of production and even more important than capital. This wrong emphasis led to the development of capitalism. If *pañña* is understood as a more important factor of production than capital, there will be a tendency to consider *pañña* as the mode of production. If countries and the whole world understand that *pañña* is the mode of production, the national as well as the global

economic systems will change from capitalism to *pañña-ism.* The destructive consequences of capitalism are due to the fact that most human beings do not clearly understand the meaning of *pañña*. They tend to overlook the ability of human *pañña.*

Before discussing *pañña,* there should be a common understanding of brain power and muscle power from the point of view of the tools to observe the true nature of the two resources: physics and physiology. The muscle power of a human being is by the balanced utilization of each part of the body in regularly use from the day that person is born from the mother's womb. It is more ready to be used for production from the age of 15. Male muscle power is usually more effective than that that of a female. Although the focus is on muscle power, a person with a better brain will perform any task more effectively. Without the coordination of a good brain, there is more chance for wasteful use of muscle power. The peak of muscle power is between the ages of 20-25 depending on individual physiology, its training and the nature of work involved. After the age of 45, muscle power will become less effective for production purposes. Its effectiveness will decline quite rapidly afterward.

The most important aspect from this observation is that muscle power cannot be stored. It can only be used on a daily basis, alternating between use and sufficient time for resting. Whether it or not has been put to good use it will be exhausted at the end of each day. In order to store such power each day that it has not been put into effective use, it may have to first be converted into electrical power. Unfortunately, the amount of power will be too small in comparison with electrical power from other sources. So far, there have been only minor attempts at storing the unused muscle power from a human being in the form of electrical power for subsequent use.

The ability of each individual to use their muscle power will vary according to its regular usage. Strength and endurance are increased with more regular use at maximum ability each day. If it is not used at its full capacity, its overall ability will deteriorate. This nature of muscle power is similar to that of brain power to be explained subsequently. Therefore, the condition of regular usage is important for better utilization of muscle power. At the same time, the significant difference between brain power and muscle power is that while muscle power cannot be accumulated, the brain can accumulate more knowledge after being used. Therefore, the brain will keep increasing its ability the more is used. This characteristic has made the brain uniquely different from all other factors of production. It is the only factor of production that can generate its own value added with use. The value of all other factors either will be the same or depreciated in value after use. The brain appreciates in value.

Similar to muscle power, the brain begins to be developed very early. Usually, a human brain consists of about ten billion neurons. This number of neurons is reached by the time a person reaches the age of two years. Therefore, from conception forward, appropriate nutrition and proper stimulation is essential to the full development of neurons in the brain. Proper nutrition, love and care with continual stimulation of the brain will result in the brain of the two year old child being in perfect condition. Therefore, the best care of the mother and her child physically and mentally during this crucial period is vital to the development of the brain of the child.

"Brain power" is different from rest of the nervous systems that controls the working of the other parts of the body that receive external information through an organ that serves as a point of contact. The brain has two important functions among many others. Firstly, the brain serves as a database. It acknowledges the receipt of information and puts it into its memory. The information can then be retrieved later. This function was particularly useful in the past when human knowledge was still small. Those who had good memories in the sense that their brain could store more information and retrieve it quickly had an advantage. Nowadays the amount of information available is enormous. There also exist various external sources of memory storage such as libraries, information systems, and memory units in computers to name a few. In this new situation, the ability to store memory in the brain becomes less significant.

This function of the brain is explained by *pañcakkhandha* as *saññā* (perception or database). The ability to analyze is becoming the more important and significant function of the brain. Physiologically, it can be explained as the branching out of connections from each neuron. Each neuron is able to branch out its connections to others. Each neuron can have its points for contact ranging from tens of thousand to

hundreds of thousand of branches. This ability to branch out results from the brain being continually trained to solve problems. This part of the brain is what is referred to as *viññana,* or consciousness, and *sankhara* or volitional activities.

Apart from this, the brain as a whole serves as the point of contact, *ayatana* or sense object of consciousness called *mano* or mind. This serves as the abstract concept of *rupa*, in this case, the combination of *mano* and *viññana* will work together in order to gain understanding or knowledge that is abstract in nature.

Similar to muscle power, brain power can be gets its strength based on how regularly it is used. Usually, the ability for the brain to be used is much higher than the limit power of muscle. The brain has more intelligent system at work. For example, if the brain is tired from working it will control the work of the muscles through the nervous system, and tell the body to feel tired. As a result the person who is the owner of the brain will need to rest. An exception is that the brain can overwork itself, then the owner is faced with a challenge to survival. The owner of the brain can be overly excited or under stress from existing obligations. This can be the cause for a person to be unable to sleep due to the overworking of the brain. A tired body will eventually stop the work of the brain. Therefore, the condition of overworking of the brain is rather rare. It is the health of the body itself that requires much more care and attention. Problems will normally originate in the body first. Nevertheless, if the brain is under a condition of stress for a long period of time, it can result in some form of "abnormality" or neuron related diseases. Such diseases are not only due to too much mental stress, they can result from infection or some significant change in he chemical components in the brain. In conclusion, the chance of overworking the brain is possible but rare.

If a neuron ceases functioning, it cannot be replaced by a new one. However, nature has provided each individual with an excess supply of neuron. A significant difference between the use of muscle and that of the brain is that the muscle power will be dissipated at the end of the day, while the brain will branch out more after being used. It will link with other neurons that store more information to be used in the process of problem solving. The new neuron branches will not disappear over night. They are much more durable. They can be retrieved for usage many more times. As a result brain power can be accumulated. The more it has been used, the more ability to know and the ability of the power of the brain will have. This is because the number of branches of the neurons keeps increasing. This situation explains why when the brain is used, the ability of the brain increases exponentially.

In term of economics this situation can be explained in that *the brain power is the most wonderful factor of production and is different from all others, in that the more it is used the more its value appreciates.*

The value of all other factors of production will decrease or remain the same after being used. A clear example is technology which is the product of a human brain. Technology cannot be advanced or upgraded by itself. As soon as it has been put to use it will be disconnected from development through human brain. It can only be advanced or upgraded when a human brain is used to further develop that technology. In the future it may possible with the aid the computer technology of artificial intelligence that technology can upgrade itself. At that time, unimaginable danger could happen. It will be because such technology will be beyond human control. Technology being created by technology will be beyond the ability of a human brain to comprehend.

It can be seen clearly that from a physical point of view, that the brain as a factor of production is the most wonderful factor. The more it is used the more that its "value-added" will increase.

Ability to Identify Intelligence and *Paññа*

What has been discussed so far is a description of brain power as a whole. For a sharper analysis of the production relationship in Buddhist Economics there must be further differentiation between intelligence and *paññа*. The most important part in Buddha Dhamma is *paññа* not intelligence. The emphasis in the West is normally confined to intelligence only. Before explaining the difference in meaning between the two, it may be useful to back track to the beginning of knowledge gained from information in the form of identification. For example, a stone is different from a tree and a tree is different from a cat. The cat is different from a human being. They are all different. This is a way to use general features of natural things

to explain that they are clearly different things. There is no need for in-depth analysis to understand this process. The ability to identify is clearly possible because of the visible distinction. This is the normal function of *sañña khandha* in the mind.

A higher level of knowledge than identification of information is the one gained from an analysis derived by connecting varieties of information together. It starts from basic information, facts or even assumptions which can be true or not true. The second part is a logic deduction method or methodology. It can be simply called the operational rule. It may start from the most simple rule of addition with the notational sign of (+), subtraction (-) multiplication (x) and division (÷). Given the information that there are two piles of identical things: one has A amount; the other has B amount. As the two piles are put together, the total amount will be A + B. If additional information is also available, namely, A = 2 and B = 5, A + B = 7. The result of 7 is gained by applying a set of facts with the operational rule or a logical deduction method. The result will emerge as new knowledge. This way one can introduce a new operational rule and its application to the set of facts in order to gain new knowledge, as basic information or basic assumptions and the operational rules or the logical deduction method becomes much more complex. However, in the end a conclusion can be made. The ability to find the answer or the conclusion in the end is through increasing complexity of the basic information and the operational rule known as "intelligence". It has the same meaning as analytical ability. What actually happens in the brain is its neurons are branching out and having more connections among themselves.

The most important part of this case is that, in each analytical process, there exists a certain operational rule or rules. Hence, anyone who has the same set of information applying the same operational rule, and having the same level of intellectual ability, can analyze and find exactly the same answer. This form of knowledge can be achieved by everyone at the same level of intelligence. It is the form of knowledge that can be transmitted from one to others. This method of transmission of knowledge is used in most educational institutions, since it can be easily understood by those involved. The findings in medical science reveal that the brain that serves this analytical function in the left brain. If *pañcakkhadha* is used to explain the working of the brain this function will be the same as *sankhara khanda*.

The other form of knowledge (and it is the most important one) results from personal experience. Those who share the same experiences can actually relate to each other. Those who did not have such experiences will have no way to understand. It is the knowledge generated from the accumulation of experiences. This type of knowledge can be told to others who have no such experiences to relate to. However, those who have been told will not have the same knowledge or have the common understanding with those who have the experiences. This form of knowledge originates in *paññа* resulting from the continual accumulation of experiences (or *sañña*). It is experience based on the understanding of everything in its own nature. This type of knowledge takes place under the very complex situations already explained in chapter nine. It must begin from having perfect reception or *ayattana* with the firm *sati*, so that it can firmly grasp the information passing in from outside to allow *sampajañña*, (clear comprehension) to examine the information without any distortion, so that everything is understood in its own nature. This is how *paññа* emerges. *Paññа* is the ability to understand everything in its own nature. It has been generated from the accumulation of experiences (*sañña*). The most important experiences will emerge after a certain process of development of the mind and *paññа*, together with having good receptors with firm *sati*. All of the information that has been passing inside is understood without any distortion. This situation will only take place when the mind has been trained and developed continuously. The more *paññа* has been developed the more enhanced will be the ability to understand everything as much as possible in its own nature. It can be seen clearly that the "truth" or actually the level of understanding can be varied by different levels of mental development. This level of knowledge cannot be understood in the same way as that of intelligence. Unfortunately, if one begins from some social convention available in Western civilization that claims human beings are born equally with rational, this premise will shield the fact that the "truth" can be varied by different levels of mental development. This form of knowledge can contribute to developing from a human being into a Buddha, the one who knows, the one who is completely awaken and enlightened. Such persons will discover the natural truth by themselves. As a

person can understand everything in its own nature, the person will have sufficient knowledge to end *dukkha* completely. This situation is generally known as *nibbana*. According to medical science, it is the right part the brain that performs this creative function.

According to *Buddha Dhamma*, *pañña* is much more important than intelligence or analytical ability. The main difference between intelligence or analytical ability and *pañña* is the ability to understand everything in its own nature which is a self explanatory. Analytical ability is the ability to find the answer or the conclusion from basic information. Such information can be true or not true. The information is then analyzed by the well defined operational rules in order to lead to the desired conclusion. Everyone with the same level of intelligence can come up with the same conclusion. This method of analysis is commonly known as the "scientific method" in the narrow sense discussed earlier. Unfortunately it is still considered as a scientific method in mainstream economics as the science of mainstream economics is still at the level of Newtonian physics. One advantage of this method is that those who have the same level of intelligence can reach the same conclusion. It is therefore, considered as a respectable method since it can be "proven" to be "true" by everyone. Unfortunately, this method can be deceptive as well, especially it can be self-deceptive.

The main weakness of this analytical method is that the basic information does not necessary reflects its natural reality. In most cases, especially in economics developed from the West since 19th century, the majority of assumptions are not based on the reality of the situation, especially the set of assumptions related to the nature of human beings. A second weakness is that even though most operational rules are well developed, it cannot be guaranteed that the rules are without any defect, because they are created and accepted as human conventions. The examples that have been pointed out earlier are the Cobb-Douglas and the CES production functions. Human convention does not necessarily reflect the real nature of the production process. As a result the application of the "scientific method" can be its own weakness. This weakness mostly results from carelessness in assuming that the assumption is correct from the outset and the operational rule is also correct. When the two are correct the result must be also correct. In reality the assumptions and/or the operational rules can be incorrect. However there is still a strong belief that the result must be correct because it is the "scientific method". This is the most dangerous belief in mainstream economics developed. The real reason is because the emphasis on the ability of the brain is only at the level of "intelligence" instead of "*pañña*".

The main weakness of the knowledge gained from the "scientific method" is that it leads to a complete denial of all other forms of knowledge because the understanding of the functioning of the mind the mind, the meaning of various things has been reduced to only logic or a mechanical tool for understanding. The understanding of the mind in the form of *pañña* (which is a word that has a wide range of meanings) is limited. This is because *pañña* has its own evolutionary steps. The different levels of *pañña* depend upon different levels of mental development resulting from the training of *sila*, *samadhi*, and *pañña*. These different levels of training consist of different levels of knowledge and understanding. Things that are perceived or understood by different levels of mental development will be different also. Thus, the "truth" perceived through understanding for those with a higher level of mental development may not be the same as for those with lower ones. This should not imply though that these differences are not scientific or not conforming to natural law. It is only because the quality of perception of each individual is different. In the case of a material receptor, difference in quality can be easily and generally recognized in physics. However, when the receptor is a mental one, physics or Western sciences cannot recognize it because they have no tool for this kind of analysis.

For easier understanding, let's look at an analogy. In chemistry, test tubes are sometimes used to run small experiments. If the test tube is contaminated by outside substances, the results will not be the same in all the tests. The contaminated human mind is much more difficult to find out than that of the test tube. However the results from the tests will be the same, namely different levels of mental contamination will produce different results. In this case, the "truth" will vary between different levels of mental development. In order to solve this problem of testing in chemistry, great care is taken to insure that the test tubes are perfectly clean and uncontaminated. In this case, there is no longer a problem of a

contaminated tube. The same is true when we take great care to insure that the mind is clear and uncontaminated through *sikkhattaya;* we no longer have a problem of a contaminated mind and get consistent and reproducible results.

In this case, *paññna* has become the most important tool to probe for new knowledge. The purity of the mind must be at the level of *upekkha* or neutrality of *sankhara* that has been developed and controlled by pure *sila* and firm *samadhi.* This mental condition can be compared with the clear and pure test tube, discussed earlier. In general, a human mind that has not yet reached the stage of *arahant* (perfect one) is similar to an unclean or impure test tube. Therefore the experimental results can be varied, as the results can be different among the ones with different levels of mental development. A modern scientist who understands the concept controlled experiments or of mental development will understand these different experimental results very well. In conclusion, intelligence is only one form of *paññna.* At the level of understanding logic or mechanistic thinking it is not necessary to be controlled by *sila* or *sati.* Therefore, intelligence can be used in an undesirable or wrong way. Also, intelligence can come with a "temptation to take advantage of others". It can be dangerous to have intellectual ability without the control of a good moral conscience. If *paññna* has only been developed at the level of intelligence and it has not been controlled by *sila* and *sati*, it can also be dangerous as well.

Having understood the different meanings of the ability to identify intelligence, and *paññna* as well as the weakness of intelligence and the significance of *paññna*, brain power will be reexamined in more details. During the development of the brain in the early part of life, it is conceivable that intelligence can be developed exponentially. It can be done through increasing the branching connection of each neuron. At the same time "experiences" or *saññna* will also be accumulated through the process of maturing. It is the origin of the development of *paññna.* On the other hand, *sati* that has also been developed through the continuous process of training will become more firm. It will grasp everything that is passing through for more thorough examination. All of these processes are part of the process of accumulating *paññna.* It can be clearly seen that in the said process, *sati* is the most important condition of *paññna*. Therefore within the "brain power" there will be a gradual change in its composition: *paññna* will increase. As a mind learns to look at things with sati, slowly, intelligence will be converted to *paññna* through the application of mindfulness and values. *Sikkhattaya* will provide a strong, clean, clear mind that with sati will allow for the emergence of new ideas based on the accumulated *paññna*.

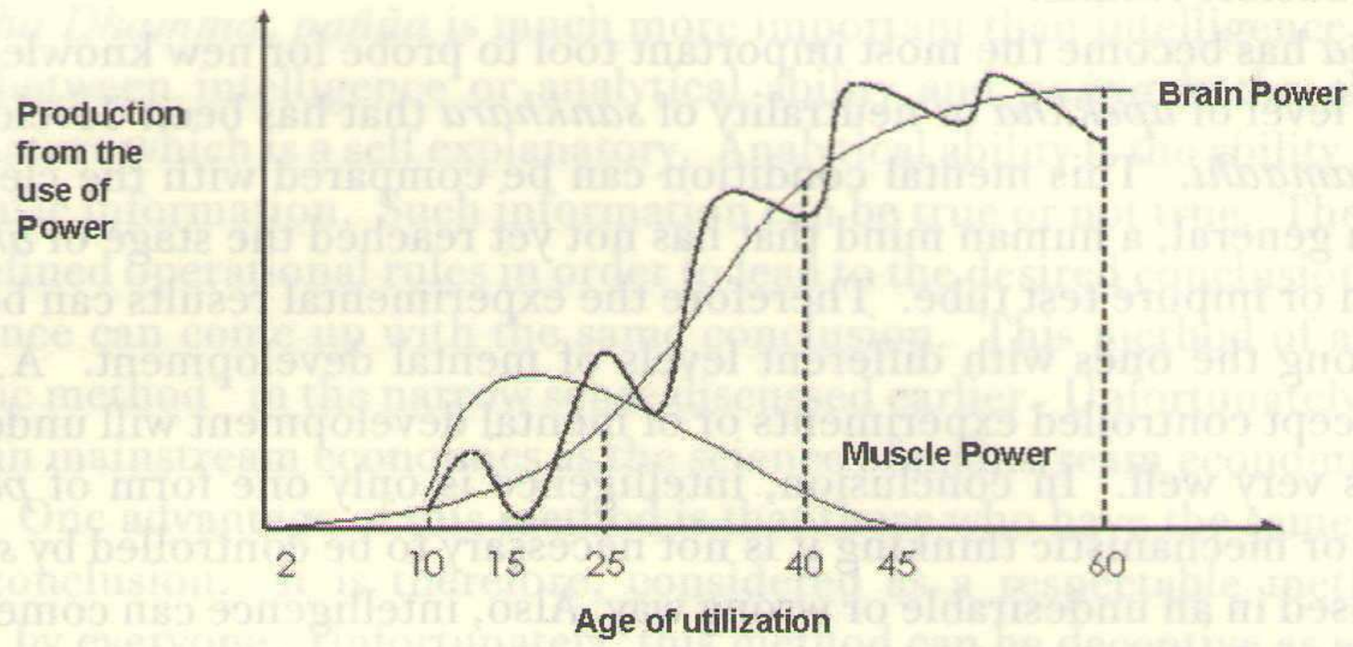
The result will be that the mind will be continually developed to a better quality. This fact explains why brain power is more durable for working, and it is also much more efficient than muscle power. It can also last a much longer period of time.

Apart from that, there is a difference in muscle power among different genders. If muscle power is regarded as the most important part as it was happening in the distant past, its utilization will be limited to the male only (ranging from 15-45 years old). However for the brain power, there is no valid proof on which gender has more than the others. Therefore if brain power is the mode of production, there will be a much larger pool of such power from a much larger population (for male and female as well as other genders). Unfortunately, there is also a definite end for the utilization of brain power depending on how regularly it has been used. After about 60 years old or so, the neurons that serve as a memory are deteriorating. As each neuron deteriorates, its branches that connected it to other neurons will no longer be useful. The level of intelligence can actually be reduced. *Sati* and *paññna* will be more durable as the result of experiences, are more durable. However, *paññna* being generated from the ability to understand everything is its own nature will not increase further as exposure to new experiences, ideas and concepts naturally decreases.

You can see in Figure 4 below a comparison of the significance of brain power and muscle power as they are both factors of production.

Figure 4

Comparison of Product from Muscle Power and Brain Power



The figure is not based on empirical evidence. It is only shown as a complimentary example for the readers to have clearer understanding of the concepts than the verbal explanation offered. It should not be used for reference or for further analytical purposes, because it can be incorrect. It is used in this context more as an assumption in order to better visualize the framed thoughts. The aim is for clearer understanding only.

One can see that this figure shows the difference in impact the utilization of brain power and muscle power have on production over time. Muscle power will begin from age 10 and will be useful for production at the age of 15. The peak comes at the age of 22. After that it will be decrease until at about the age of 45. After this age it is not of much use.

Brain power starts working at the age of 2 and gradually develops. It will increase exponentially around the age of 25 (This age is approximately the age of a graduate with a Bachelor's Degree). If the brain power has been continuously well developed, it can be used as a factor of production much longer than that of the muscle power. After that intelligence will be gradually replaced by *pañña*. The point of inflexion is around the age of 40. After that time, *pañña* will work more in the place of intelligence. The dotted line moving up and down around the solid line representing brain power indicates the uncertainty of the intelligence. It may be used in a good way or a bad one. This can result from incorrect assumptions or incorrect operational rules or both. More damage can be the end result. Nevertheless after the point of inflection around the age of 40, as *pañña* starts to increasingly replace intelligence, a mistake can be reduced. The fluctuation of the dotted line will be less. The dotted line is introduced to show that brain power does not only result in creative activities. It can also be destructive, if it applies the wrong theory or it is holding on to *micchaditthi* or wrong belief.

Pañña is the Mode of Production in Buddhist Economics

From what have been discussed in chapter nine together with the said production relationship, it can be clearly seen that *pañña* is the mode of production in Buddhist Economics. The mode of production of Buddhist Economics is *pañña-ism* not capitalism that has capital as the mode of production. Other factors of production in Buddhist Economics only serve as complementary factors. Therefore, *pañña* is only the most important input factor. However, *pañña* cannot work by itself alone, because it is part of *sikkhattaya* known as *sila*, *samadhi*, and *pañña*. *Pañña* will first exist in the form of faith in *sila*. This faith begins from the belief that good behavior, namely always doing good things and avoiding doing bad deeds, will finally lead to *sukha*. This belief leads to a practice of *sila*. In other word, *sila* is a technology for doing good things and avoiding doing bad things at the same time. After practicing that, the mind will be more in the stage of *samadhi* and *samadhi* is a basis for *sati*. It is the one that grasps the information for realistic examination. Therefore, *samadhi* is a technology that generates *sati*. *Sati* is the most crucial condition for the beginning of the accumulation of *pañña*. All *sila*, *samadhi*, and *pañña* will work together in the form

of virtual spiral to the point where *pañña* has reached *nibbana.* It is the situation of the enlightenment of *pañña,* the ability to understand everything in its own nature. At that point *sila* will be pure yielding complete cleanness, and *samadhi* will have achieved a complete calm. From the relationship discussed in *sikkhattaya*, it becomes crystal clear that *pañña* is the most important concept in Buddha Dhamma.

Turning back to the concept of the brain that already includes intelligence and *pañña,* it can be said that human-made resources of capital and technology are in great part the product of the brain. Capital can be further divided into physical capital and social capital. Social capital also implies tradition and culture that are conducive to increase production. Technology can also be divided into hard technology that may cause negative impact on the quality of lives, and soft technology, the one that is friendlier to lives and environment.

Such an explanation is rather different than that of Marx. He explained that capital is a result of the accumulation of surplus value of labor by a capitalist. The capitalist normally employs workers at a wage lower than their real labor productivity. The real productivity of labor is actually in the form of the products produced by workers. The surplus value is part of the product taken away from workers. This theory has its root in the theory of labor value of Smith. Actually, it is much more difficult to evaluate the productivity of labor if the production system is complex. Labor is not the only factor of production. It is true that production is the result of the integration of the economy into a connected whole. One cannot actually determine the net contribution of any single factor of product the way that labor was explained by Marx. (Eugen Loebl, 1976: 22-24) The explanation of capital accumulation that results from surplus labor can be a wrong theory or *micchaditthi.* This theory leads to the elimination of capitalism. There were great experiments in most communist countries. They resulted in many undesirable repercussions. Most of them had negative impacts on human lives finally leading to the collapse of the former Soviet Union as well as Eastern Europe. At the same time, explaining that capital is a product of the human brain may not provide a concise picture, similar to Marx. However, it is not far from the truth.

The part of a human brain as a factor or production, it is more likely that human intelligence is responsible for capital accumulation as well as a creation of technology. It can be concluded in general that the brain power is more important than capital and technology. As the brain consists of both intelligence and *pañña,* it has already been pointed out that intelligence can be used in both positive and negative ways, shown in Fig 4. In order to reduce undesirable outcomes from the work of intelligence, intelligence must be controlled by *pañña.* For example, intelligence can focus on rapid accumulation of capital in order to increase production, without any due consideration for its possible adverse consequences. From the position of *Buddha Dhamma*, it is more important to have more *sukha* in life while minimizing the burden on oneself and others; *pañña* will question how the capital is accumulated. Is the method of capital accumulation burdening oneself or others? If this issue is not included into consideration, if intelligence only is used in the process of capital accumulation, it may lead to exploitation of labor. This exploitation will not only be limit to the labor. It may include oneself as well as natural resources and the environment resulting in their degradation. Having *pañña* controlled intelligence, this situation will not exist. It can be seen at this point that in the beginning, this analytical method may not be as sharp as that of Marx. In the end, it will become much clearer and can advance beyond Marx's explanation.

The same can also be applied to technology. If technology is the product of intelligence only, it will be used to achieve maximum output without much consideration on its side-effects. For example, a working condition of workers who work with machines, there may be no questions raised on workers' welfare or the skill development of the workers. The same can be said for consequence on the resources being used in the production process and the environment. *Pañña* must raise similar questions from the stand point of *Buddha Dhamma.* The end result will be that the machines must perform their functions to facilitate human beings, to enhance human capability, to enable humans to work more efficiently, and have more time to do other useful things for other human beings. At the same time, it should not result in stimulating *kilesa* that causes more cravings in human beings. It should not cause either direct or indirect effects that lead to the degradation of natural resources and the environment. Such degradation will cause adverse consequences to human beings later on.

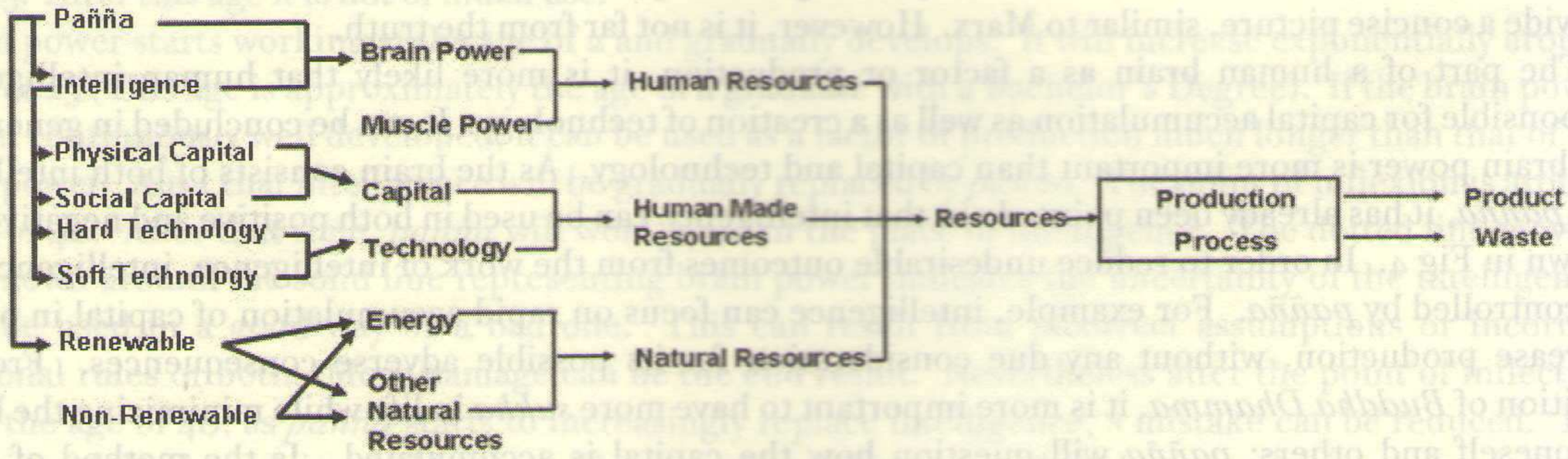
Therefore, *pañña* will serve as the assurance for any adverse consequences from production and its accompanying waste, as well as the results from consumption and its accompanying waste. From what has been explained above, *pañña* can be truly considered as the mode of production of Buddhist Economics.

Apart from controlling capital and technology through intelligence, *pañña* must control the utilization of energy and other resources. The energy can be further divided into renewable and non-renewable energy. The same can be said for other natural resources. If *pañña* is in full control of the utilization of energy and other natural resources, it will result in more use of renewable resources and energy and as little use as possible of non-renewable ones. If *pañña* is able to perform its function in this way, it will result in the most efficient production relationship. At this level, efficiency reflects the true concept of economic efficiency, since it yields maximum output as well as provides the least amount of waste under the condition of no burden to oneself or others. At the same time, the negative impact on natural resources and the environment will also be minimized.

The diagram of production function after more elaboration of the concept is shown in Figure 5.

There is an opinion that if the production process is operated the way it should be based on *Buddha Dhamma*, there must not be any waste from the production process. In a way, it results as suggested. According to the definition, waste is harmful to human beings. As *pañña* is in full control, waste should not be part of the output from the production process. At the same time, waste must exist as a part of the nature of production process that cannot be altered by *pañña*. For example, in the consumption of food for the continuation of life, the body will automatically get rid of the part that is not needed.

Figure 5
Production Function in Buddhist Economics



Pañña* as the Mode of Production *or Pañña-ism

Should the part that has been released by the body be considered as waste? It depends on the subsequent management whether it will cause any problem to the environment, or reused. The above situation leads to an inconclusive answer as to whether it should be one or the other. This issue will be left to the readers' consideration to decide what should be the true nature of the production process. Waste is naturally part of the output from any production process.

Linking Production to Consumption and the Absorption into Environment

What has been discussed so far is an attempt to explain production theory in Buddhist Economics. It consists of three main features.

1. It attempts to explain the production relation consisting of input, the production process, and output as close to its real nature as possible.
2. It emphasizes *pañña* as the mode of production, resulting in the economic system known as *pañña-ism* instead of capitalism, the mode of production in mainstream economics.

3. *Buddha Dhamma* has a clear stand as its ultimate goal is to create as much *sukha* as possible while not causing a burden to oneself or others.

A Buddhist analysis understands that the three features are closely related. It cannot completely separate one from the others. This production process has *pañña* as the mode of production. As *pañña* is the most prominent component and also *pañña* is the mode for production, the ultimate goal of the development of *pañña* is to achieve as much *sukha* as possible for an individual. In other words, peace and tranquility for all human and sentient beings should be the ultimate goal of this production process.

All of these relationships attempt to reflect everything in its own nature. It should be shown in the form of mathematical relationship if it can be demonstrated in that form without any distortion, as a prominent feature of mathematics if that is a good way to enhance understanding. Given the existing limitations of mathematics that can not demonstrate the true relationship without any distortion since its primary purpose is to make it appear as a "scientific" method as used in mainstream economics; in that case, there is no need to do so.

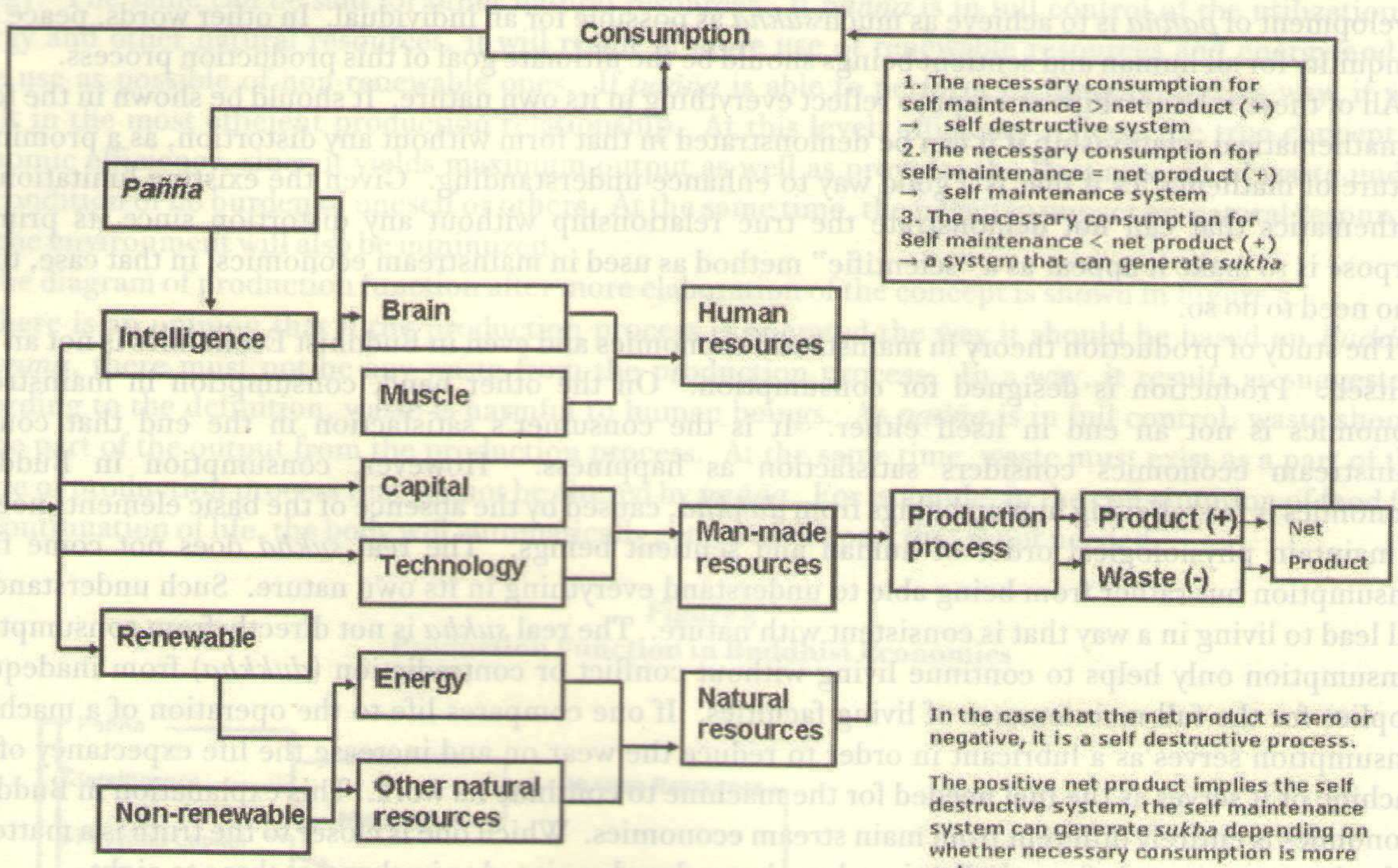
The study of production theory in mainstream economics and even in Buddhist Economics is not an end in itself. Production is designed for consumption. On the other hand, consumption in mainstream economics is not an end in itself either. It is the consumer's satisfaction in the end that counts. Mainstream economics considers satisfaction as happiness. However, consumption in Buddhist Economics is for relieving human beings from *dukkha*, caused by the absence of the basic elements needed to maintain physiological order of human and sentient beings. The real *sukha* does not come from consumption but rather from being able to understand everything in its own nature. Such understanding will lead to living in a way that is consistent with nature. The real *sukha* is not directly from consumption. Consumption only helps to continue living without conflict or contradiction (*dukkha*) from inadequate supplies for the full maintenance of living faculties. If one compares life to the operation of a machine, consumption serves as a lubricant in order to reduce the wear on and increase the life expectancy of the machine or it serves as the fuel needed for the machine to continue its work. This explanation in Buddhist Economics is entirely different from main stream economics. Which one is closer to the truth is a matter to be further investigated. Some indications have been already pointed to in chapters three to eight.

At the same time, output does not only consist of product, it also includes waste. Waste from any process can be insignificant. However, waste must be completely eliminated or the waste must be completely absorbed into the environment, or else dealing with the waste will become a serious issue. In order to simplify the issue, before consumption takes place, waste will first be deducted from product. In reality, waste cannot be subtracted from product to yield net product, but for the sake of simplification, it is assumed that this calculation is possible. The result can be positive or negative before any consumption. If the result is negative, the whole system will be self-destructive. The system is not sustainable. If the result is positive and can be used for full maintenance of the system, the system will be sustainable. If there is more than self-maintenance, it will be the system that can actually rehabilitate itself. It's the terms of Buddhist Economics, this is a system that is able to help humans and other sentient beings to be relieved of *dukkha* or *dukkha* from inadequate materials needed to continue to live free from pain, resulting from having adequate material supplies. In this case, the production system can be understood as a system that is capable of generating *sukha*.

Therefore, the important condition for having the self-maintenance system sustainably apart from having a positive net product, the need for consumption for a self-maintenance system must be equal to or less than the positive net product. The difference between desired consumption and that needed for self maintenance can be made closer through *pañña*. *Pañña* in Buddhist Economics does not only exist to regulate production, it is also used to regulate consumption. In Buddhist Economics, there is no clear distinction between production and consumption as in mainstream economics. This difference will be discussed later on.

Paññna is the most important factor of production and it can contribute to sustainable production and consumption or even to the rehabilitation of humans and other sentient beings that are still in *dukkha* according to the cases (2) and (3) in Figure 6. The future tendency of capitalism appears to be in the

Figure 6: The Working of the Whole Production Process through the System of Consumption



direction of unsustainability, because more waste tends to be produced than product resulting in a net negative product. The main difference is that instead of being regulated by *paññna,* capitalism is basically regulated by the greed of each individual. Its main objective is unlimited increase in capital (and greed). Such practice offers no guarantee for long term survival of the economic system. Therefore, transforming from capitalism to *paññna-ism* is necessary if the common goal of human society is to live with sustainable *sukha*. The real issue is how to transform from the existing capitalist system to *paññna-ism.*

As capitalism is based on capital accumulation, accumulation of *paññna* is also needed if this mode of production is to succeed. The real problem is how to generate a system that can create and accumulate *paññna*. The thoughts on this matter have been proposed since the time of Greek philosophers up to Rousseau (1712-1778), Saint-Simon (1760-1825) and Mill (1806-1873) where education was deemed as essential. Presently the emphasis is shifted to that of social capital under the context of capitalism. The most recent proposal is the one by Lester Thurow, a well known economist from MIT in the United States of America. (1999: 291-293) He suggested that the emphasis should be on the accumulation of knowledge in what he called the "knowledge infrastructure". Knowledge by his definition is only at the level of intelligence not *paññna*.

If one looks at the origin of this thought up to the present, using the historical evidence from the evolution of human civilization, and the current level of education accumulated by humanity, it can be concluded without any doubt that human beings currently has much higher level of education than the past. In fact, the problems nowadays result from "too much education" not from an inadequate amount of education. The real reason is that "education" developed in Western society especially since the beginning of modernization in the 17th century has completely left out its moral and ethical roots. The

whole system of Western education emphasized generating more intelligence without adequate attention to *paññña* in the sense already explained. It emphasizes more the transmission and development of knowledge on the basis of applying a set of assumptions together with operational rules of ever increasing complexity without bothering to question whether the assumptions are realistic. This type of education can only generate intelligence not *paññña*. The creation of this kind of intelligence can be done even with non-living things such as the case of the development artificial intelligence in computers since the 1980's. There has been a significant amount of research work on artificial intelligence. The aim was to increase the level of intelligence of a computer so that it could accept instructions more easily without the need to explain every step in detail. There was even a vision that the future computer would be able to produce other computers. In other word, it is similar to the technology that is capable to produce new technology discussed before.

It can be clearly seen that intelligence can be transmitted from a human being to a mechanical brain or an artificial brain like a computer. It can be so because of the two definite rules not controlled or regulated by *paññña* can result in errors as has already been demonstrated in Figure 4, that shows brain power itself can generate problems especially when the intelligence is more powerful than *paññña*. Intelligence can be used in the wrong way. It is not surprising to observe that capitalism(where capital is the mode of production and being regulated by self-interest) will finally result in the destruction of lives, natural resources, and the environment rather than any creative outcome, since it has been coupled together with unlimited increases in intelligence, that are not being regulated by *paññña*.

At this point the accompanied question will be how to accumulate *paññña*. The answer was already given by Buddha and that has been thoroughly explained before. Unfortunately, his teaching receives inadequate attention or is not actually practiced, at least within the Thai society. This teaching of *sikkhattaya* consists of *sila, samadhi,* and *paññña*. The reason that contemporary education cannot generate *paññña* is because it neglects *sila* and *samadhi*. In particular, *sila* has been completely removed from education, especially in the subject of natural science (considered to be a pure science) and many applied science subjects. Those subjects make no attempt to understand the existing issues. Most of them mainly emphasize education for the generation of intelligence. This situation is the main cause of this contemporary problem resulting from capitalism, whereby education is designed for a person to be a specialist ready to part of the assigned task very well without any understanding of the consequential whole. Such attempts only aim to minimize the cost and maximize the profit for more capital accumulation.

In order to increase the level of *paññña* for society, there must be a redesign of education that takes *sila* and *samadhi* into serious consideration together with the improved ability to understand everything in its own nature. Without *sila,* it will be most difficult for both *samadhi* and *paññña* to be generated. Thus the component of education that emphasizes the practical application of *sikkhataya* is both a necessary and sufficient condition for the generation of *paññña*. Any attempt at education reform or the accumulation of social capital without the strong objective emphasis on *sikkhattaya* and the transformation from capitalism to *paññña-ism* will not materialize.

Chapter 11
Analyses of Consumption with Production Theories And Other Related Theories

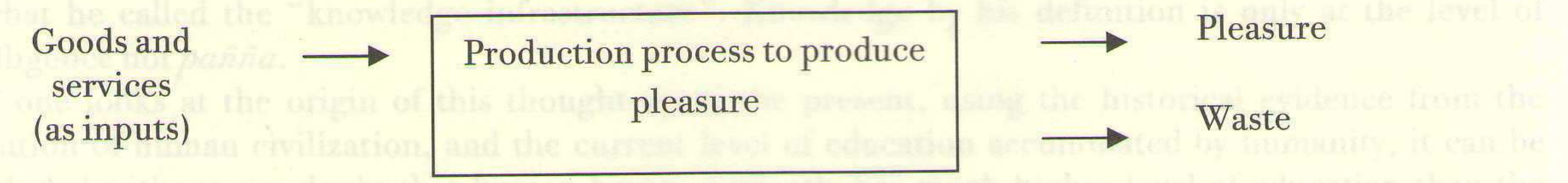
Consumption Theory

It can be easily understood that the separation of production from consumption in the mainstream economics is because a producer and a consumer are not necessarily the same person, given any production process. The main emphasis in the production process is the efficiency of production, implying the utilization of the least amount of inputs for the maximum possible amount of output. Such emphasis can be easily understood. Unfortunately, the same principle does not apply for consumption. Instead of aiming at efficiency of consumption, the emphasis is on how a consumer can maximize his/her own utility. The consumer is treated as if the person is incapable of knowing how to achieve maximum utility from his/her own consumption. On the other hand, it can also be reasoned that every time that consumption takes place, the consumer ought to achieve maximum utility under the assumption of "rational" behavior of each individual where the individual knows well his/her own utility function. The analysis of consumption of said nature explained in mainstream economics only aims to show the different patterns of consumption of each individual.

This method of explanation does not actually contribute to any additional knowledge. However, the introduction of consumption theory in the mainstream economics has its own specific function, namely, to serve as a by-pass to the analysis of the demand theory which is half of the matched pair of supply and demand theories. As supply is developed from the production theory, demand is similarly developed from the consumption theory. The pair of supply and demand will lead to the explanation of the price mechanism, the heart of the functioning of the market in capitalism. As consumption theory serves as only a "by-pass" of the market, there has been no adequate attempt to understand how much consumption theory can reflect reality.

Although mainstream economics prefers to differentiate a consumer from a producer, one can still use the framework of the mainstream economics to analyze consumption from a different angle. Actually the process of consumption can be viewed also as a production process. Goods and services ready to be consumed can be considered as inputs to a production process. The outputs of this process are pleasure or utility and waste. From this angle, the consumer also prefers to have the least amount of inputs while achieving maximum pleasure. In this way, consumption can be viewed as another production process. Instead of being goods and/or services plus waste, outputs from this production process are pleasure and waste. This way, one can apply production theory to consumption as well. More importantly, with this new way of looking at consumption, one can clearly discuss the concept of efficiency of consumption. It implies that one ought to produce maximum pleasure with the lowest production cost. The rush to the market system of the mainstream economics results in overlooking this important aspect of consumption that could lead to a much more profound implication later.

For clearer understanding, the said consumption process can be shown on the simple diagram below.



If the above diagram is explained in a Buddhist way, instead of having "pleasure" or utility as an output, it should be the maintenance of a healthy body and a healthy mind. Such output is a necessary condition for further development of the mind in order to achieve *sukha* which is the desirable outcome from this

process. In order to achieve such an outcome the ability to develop the mind is a necessary condition. The development must be achieved through the process of *sikkhattaya* discussed earlier. Given such an explanation, there is no difference between production and consumption processes at all.

There should be further analysis by way of comparison between mainstream economics (with its unrealistic set of assumptions) and Buddhist Economics. In both cases, we are looking at the concept of desire where satisfaction of the desire is measured by "pleasure". According to *Buddha Dhamma*, desire can never be fulfilled; it can only be satisfied temporarily. Unfortunately, the attempt to fulfill the desire will generate an expectation for higher and higher levels of consumption. It always looks for what it imagines as better. With no better alternative, it may be temporarily content with what it experienced but as soon as a new opportunity arises, the desire will escalate to a higher level. Mainstream economics has a different understanding. It only explains that as soon as the demand (desire backed up by purchasing power or credit that can be anticipated to be paid back in the future), for a thing exists and is met by the supply, the demand will be satisfied resulting in the pleasure of that consumer.

The difference between the two thoughts of Buddhist and mainstream economics is that Buddhist Economics is based on a dynamic analysis of any event known as *paticcasamuppada*, or the law of causation. Every result has its original causes and its other related factors. The result at this moment will turn to into a cause of a future result. In a Buddhist analysis, the time dimension of past, present and future must also be considered. The analysis in mainstream economics, in general, is a static one. It can be clearly seen that static analysis often does not reflect the real world because time has been frozen. As such analysis does not reflect the real world. It is not capable of understanding everything in its own nature. A theory that is not based on reality can be considered as a wrong or incorrect theory. This problem is a major short coming of mainstream economics.

In addition to the differences between static and dynamic analysis of the mainstream economics and Buddhist Economics, the much deeper root of the difference can be seen in looking at the meaning of the word *sukha*. In Buddhist Economics, *sukha* is the same as *dukkha*. The difference between the two is only in degree. More *dukkha* implies less *sukha* and vice versa. Mainstream economics considers pleasure, most of the time known as utility, to be the same as "happiness". Unfortunately happiness in English is not the same as *sukha,* which is an entirely different concept. The word "happiness" is closer to hedonism than *sukha.*

In Buddhist Economics, hedonism is the same as *kamasukha,* or pleasure from acquisition. It is also known as *samissukha*. It is a kind of *sukha* that can eventually lead to *dukkha*, as it can generate a desire spiral. As soon as the desire is originated, the inner heat has also been generated while the desire has not been fulfilled. Therefore, satisfaction from the desire being met is in fact the "food" for *dukkha* in the next round. If the production process is used as an analogy in this case, hedonism is the input in the process that produces *dukkha*. Therefore pleasure from acquisition cannot be considered as *sukha* that will not lead to further *dukkha* in the next round. Anything that can lead to *dukkha*, cannot be considered as the state of *sukha*. As a result, pleasure from acquisition in Buddhist Economics should be correctly called *dukkha*. This difference between the understanding of pleasure in mainstream economics and *sukha* in Buddhist Economics is the main point of departure between the two.

This belief in the ability to achieve pleasure from acquisition in mainstream economics results in the rapid disappearance of resources and degradation of the environment in the contemporary world. Such problems can be demonstrated with the attempt to solve the problem of poverty through the process of economic development with the hope that the growing economy will be accompanied by increasing income. As income for everyone is increasing, the ones who receive more income will be "more happy".

Unfortunately, such anticipation has never been a case. In reality, any society has a uneven distribution of political and economic power among citizens in the country. Those who have more politico-economic power will receive more for consumption than others. Those who try to find *sukha* from consumption will never find it. Those who have fewer resources for consumption usually imagine that the ones who have more will be more *sukha*. As a result, they naturally demand a larger share of the resources. In the end the whole nation will never find *sukha*, even though the economic status of everyone has, in fact, increased, as

well as the gross national income. However, some may end up in a better economic situation in relative terms. This effort can never actually solve the real problem of poverty. David Loy (1999: 46) used the analogy of grasping the snake by the wrong end. This result comes from having a wrong theory to begin with. Loy suggested that the nature of this problem should not be identified as the problem of poverty but rather the problem of *dukkha*, since a problem of *dukkha* can actually be solved with Buddhist Economics. Solving the problem of *dukkha* is much different than solving the problem of poverty as explained in mainstream economics. The problem of *dukkha* can actually be solved regardless of different politico-economic status.

For clearer understanding of this concept of *sukha*, it is necessary to review the meaning of *sukha* in *Buddha Dhamma* discussed in chapter nine. *Sukha* consists of *samisasukha* and *niramisasukha*. *Samisasukha* is the same as *kamasukha*. *Niramisasukha* already includes *jhanasukha* and *nibbanasukha*. The goal of *Buddha Dhamma* or even Buddhist Economics is to encourage everyone to reach the stage of *nibbanasukha*. However, in reality it is almost unrealistic to hope for everyone to reach *nibbanasukha* when each one has different level of *pañña*. Under the conditions of severe limitation of natural resources and environment, the level of *niramisasukha* is acceptable. It is *sukha* from non-acquisition. There are various forms of *sukha* from loving-kindness (*metta),* from compassion for others (*karuna)*, from relieving *dukkha* of the others, from sympathetic joy (*mudita)* to see others being happy. It is the kind of *sukha* from practicing the first three principles of *brahmavihara* or the four noble sentiments that most people can understand easily. Having *sukha* from such practice will at the same time reduce the desire for *kamasukha*.

Efficiency of Consumption

Without worrying about pleasure or *sukha* from acquisition, it can be easily understood that efficiency of consumption is similar to that of production, as a consumption process can be analyzed in the same way as a production process. Consumption and production can be viewed as the same economic process. As soon as the efficiency of production is understood, efficiency of consumption can also be easily understood in the same way. The fact that mainstream economics cannot explain efficiency of consumption as clearly as that of production is because the goal of consumption has already been set to maximize pleasure or utility. It should be clear by now that such a goal is still in the realm of *dukkha*.

A further question to be raised is how to consume without having anything to do with pleasure. At this point Buddhist Economics can provide the answer by looking at the meanings of the two words, "needs" and "wants". It can be traced back to the explanation of Abraham Maslow discussed in chapter seven where needs are classified into three levels, physiological needs, social needs and moral needs. It can be explained in addition that the word "need" in this case has the same meaning as "to value". In *Buddha Dhamma*, there is only one form or one level of needs; that is physiological needs. The other levels of Maslow's needs are not needed. They all can be satisfied with the understanding of *pañña*.

The word *pañña* has no equivalent word in English. The closest meaning is wisdom, but wisdom is not the same as *pañña*. After about the 17th century, moral knowledge has always been taken into consideration with all other knowledge in Western culture. Although the concept of *samadhi* or concentration has not often been mentioned, the word meditation in Western civilization can be used as a proxy for it. Therefore, before 17th century the concept of knowledge or wisdom, moral and meditation together with total submission to God, was comparable to the concept of *sikkhattaya*. Without *sikkhattaya* there would be no *pañña*. Without *pañña*, social needs and moral needs are the values that are necessary for human beings, especially in the society where "self" is still the main focus. Such knowledge of Maslow has been gained through observation of human behavior without appropriate tools to analyze the mind. Under these circumstances, there is no way to explain how a human mind can be developed to the point that a person does not actually require social needs and moral needs. The understanding of *sikkhattaya* will lead to the understanding of the process of the mind's development to raise the level of *pañña, sila and samadhi*. With such an understanding, further mind development according to Maslow's hierarchy of needs is no

longer necessary, because even moral needs which are in the final level of Maslow's development are a result of the training of *sikkhattaya*.

To summarize, according to *Buddha Dhamma*, consumption needed to relieve the pain from physiological needs is to be distinguished from the consumption for desires and wants (*kammasukha*) and if a person has sufficient *pañña* to understand that *kamasukha* is in fact *dukkha*, they will understand that consumption at the level of *kamasukha* is not really needed. This type of consumption can be considered as the most efficient as it is the only consumption needed.

The ultimate goal of most human beings is to be completely free from *dukkha* or to reach the stage of *nibbana*. The most direct way to *nibbana* is through the middle way or *majjhima patipada*. It is the way that does not involve the two extremes, one being sensual happiness and the other self-mortification. Insufficient access to any of the four basic needs, namely, food, appropriate clothing, living place and medicine is a cause of pain of suffering. Such pain must be relieved by consumption or being assured that all those basic needs will be available when needed. This way, that insecurity will be eliminated. The *sikkhattaya* can be practiced without any feeling of insecurity. It is a way to develop the mind to a higher level. This way, *samadhi* can serve as a base for the generation of *pañña*. At the same time, consumption to satisfy desire or craving is not conducive to mind development. It only relieves craving temporarily, but it will stimulate craving to the higher level in the next round. It also promotes excessive utilization of limited natural resources. Thus, it is not a way to bring about true *sukha*. Such a manner of consumption is clearly an inefficient way. At the same time inadequate consumption needed to maintain healthy body and a healthy mind cannot be considered as efficient consumption either.

Therefore, efficient consumption is the consumption according to the principle of middle path or *majjhima patipada*. This consumption cannot be analyzed by mainstream economics. That is because there is no analytical tool available. Without such a tool, one can be misled, resulting in a wrong or incorrect theory. The end result will be human catastrophe that becomes increasingly evident as time goes by. It should be observed that a certain level of *pañña* is a necessary condition in order to be able to consume by the principle of the middle path. As a result, *pañña* is a crucial factor for the most efficient consumption: that is the least utilization of resources given the goal of being free from *dukkha*. The word that is close to the concept of efficient consumption available in mainstream economics is cost effectiveness. It shares a meaning similar to efficiency of production but looks from a different angle.

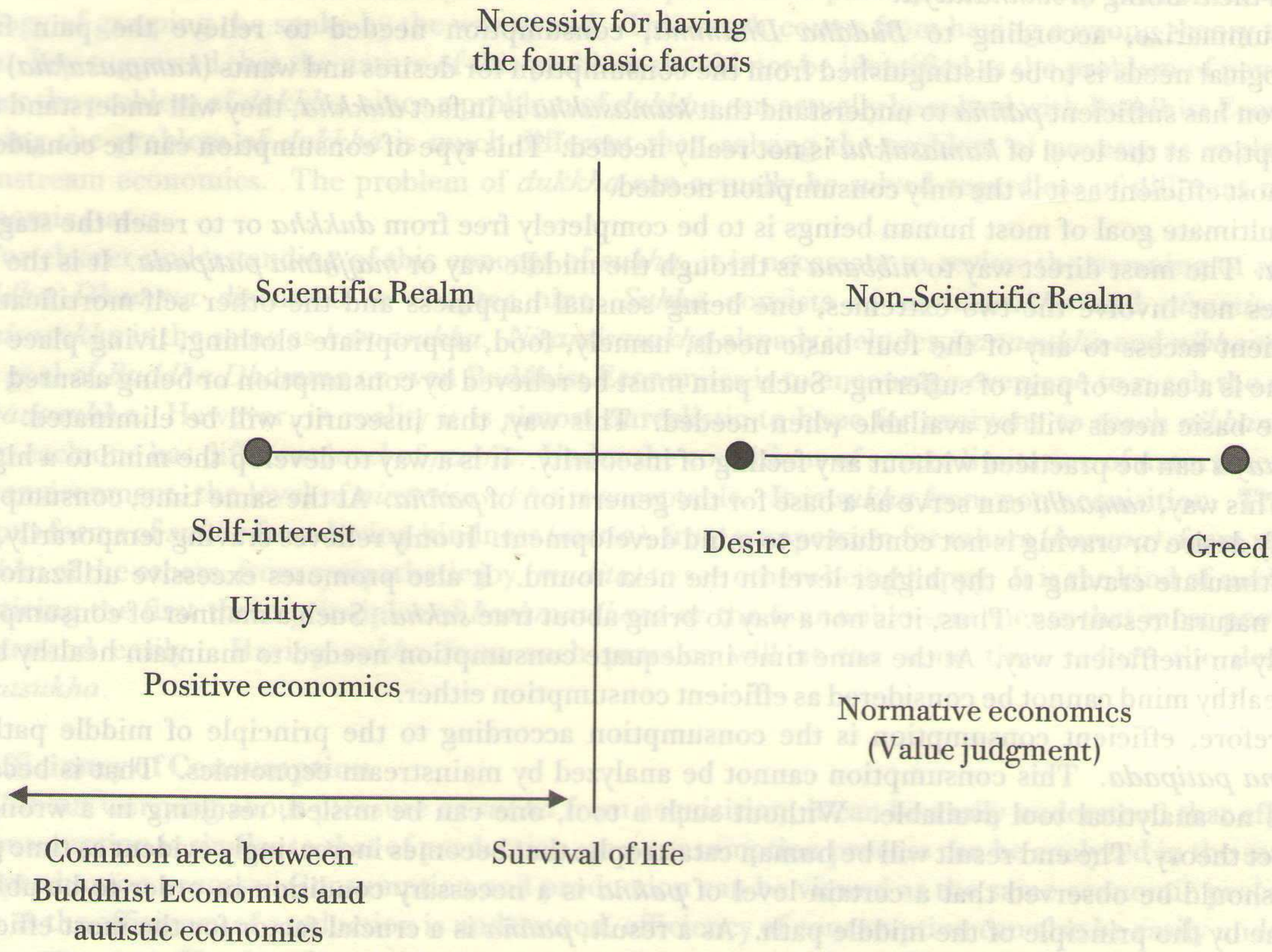
In conclusion even though a producer and a consumer can be different persons, the most efficient way that both processes can take place at the same time is that both processes must be controlled by *pañña*. Since both processes very much depend on each other. The two processes must not be completely separated.

Apart from the reasons explaining why mainstream economics cannot adequately discuss efficiency of consumption while Buddhist Economics can, the real cause of the problem lies around the concept of self interest explained by mainstream economics.

Common and Different Explanation of Self-Interest

Mainstream economics explains self-interest as a rational behavior of a human being. Mainstream economics can be described as a discipline based on self-created assumptions in a self-created world. It may have some truth but not the whole truth. The realistic part can be in common with Buddhist Economics but the assumptive parts naturally have nothing in common. All can be explained by the following diagram.

Diagram 7 Shows the Difference in Degree among the Three Concepts, Self-interest, Desire and Greed



Mainstream economics has its roots in material based science. Anything related to matter and energy can be classified as the scientific realm. The ones related to the human mind are considered as the non-scientific realm. This classification is based on physics that has been applied to economics, a subject that tries to be part of the "hard sciences". This scientific realm is classified as positive economics. The rest is called normative economics. Normative economics is based more on value judgments, rather than solid scientific evidence. Things such as desire and greed are actually different from self-interest. This fact is well understood by positive economists. Unfortunately, the two terms are very difficult to differentiate from self-interest using existing measurement tools. To simplify the analysis in a positive way, desire and greed are treated as value judgment and should be classified within the realm of normative economics.

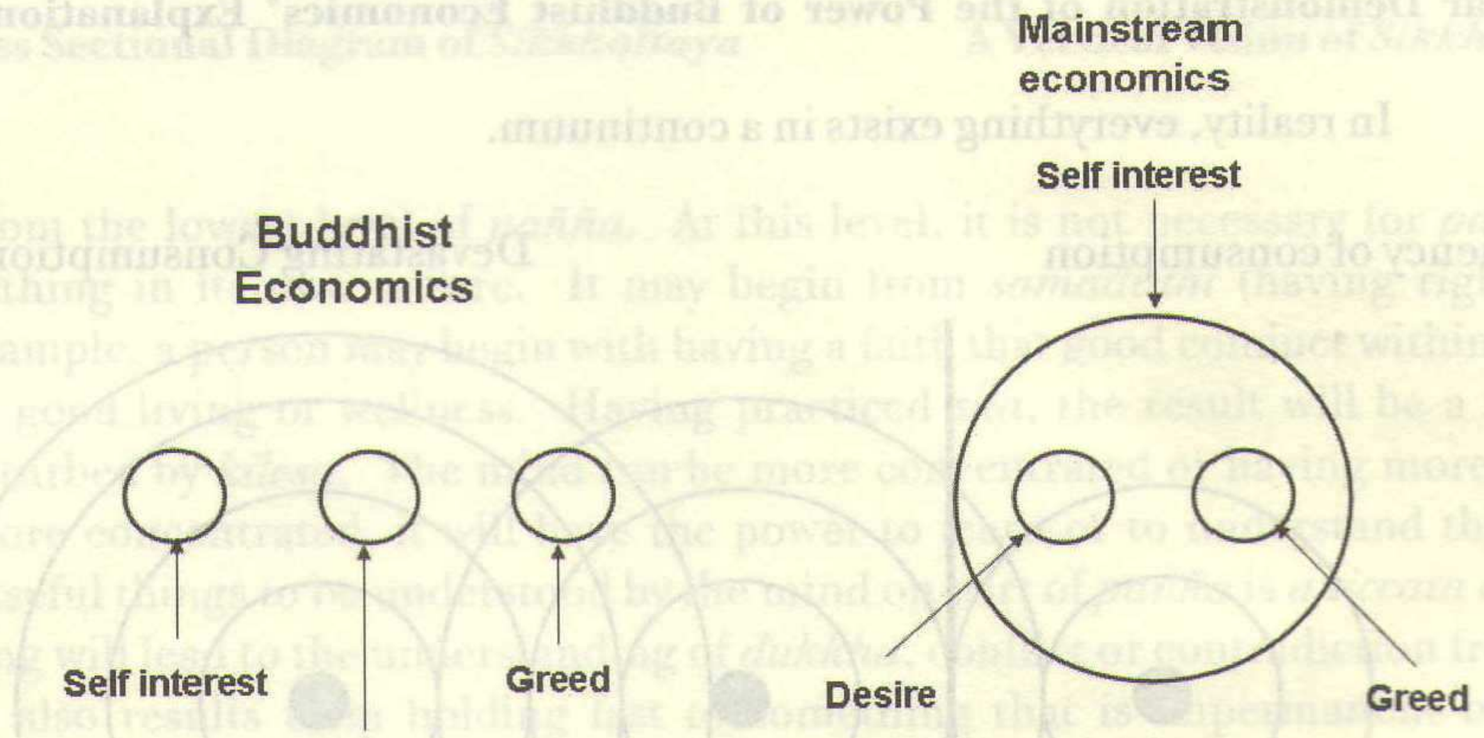
Self-interest in its own nature is not always a bad thing. It is necessary for the survival of all living things. Thus, it has its place within positive economics. Such necessity can be measured by the needs for the four basic factors for sustaining life. If any living thing has no self-interest to survive, it can no longer maintain its own species. In the case of a human being, without a sense of self-interest, there will be no human beings left on earth. All the knowledge useful for human beings will become useless. Hence, self-interest is both a necessary and a sufficient condition for valuing human knowledge. However, Buddhist Economics proposes an additional condition based on being free from suffering (*dukkha*) that such action of self-interest must not cause any burden on oneself or anyone else.

On the other hand, without adequate supplies of the four basic factors for the sustainability of life, there will be physiological suffering. The only way out of such suffering is for the needs to be satisfied. This form of suffering can be also called poverty. If a person is disturbed or anxious about survival, their mind can never be developed. It can be seen clearly that there is a common agreement on this sphere of self-interest

by both mainstream economics and Buddhist Economics. The economics that is currently taught everywhere only pays attention to a material based science without any attempt to further develop based on mind based science; it has decided to ignore the part that it considers inaccurate or non-measurable. Hence, the concepts of desire and greed are ignored, and the only relevant concept remaining in economics is self-interest (diagram 8). All activities related to desire and greed as well needs as are treated as self-interest. By ignoring reality, economics deliberately distorts fact. The subject is no longer able to reflect reality. Because of this fact, mainstream economics should instead be correctly called autistic economics.

Diagram 8 The Making of Autistic Economics

In order to make economics into a material based science, the scientific realm is extended.



In mainstream economics the definition of self interest (needs) is expanded to include desire and greed.

The inability to recognize and acknowledge such different concepts as need, wants/ desires, and greed and then lumping all of them into the concept of self-interest and describing the motivations of this "self-interest" as rational is in fact an irrational practice. If everyone were greedy, the world would not be a happy place for human beings to live. Greed should rather be considered as an irrational behavior and should not be explained as a rational undertaking.

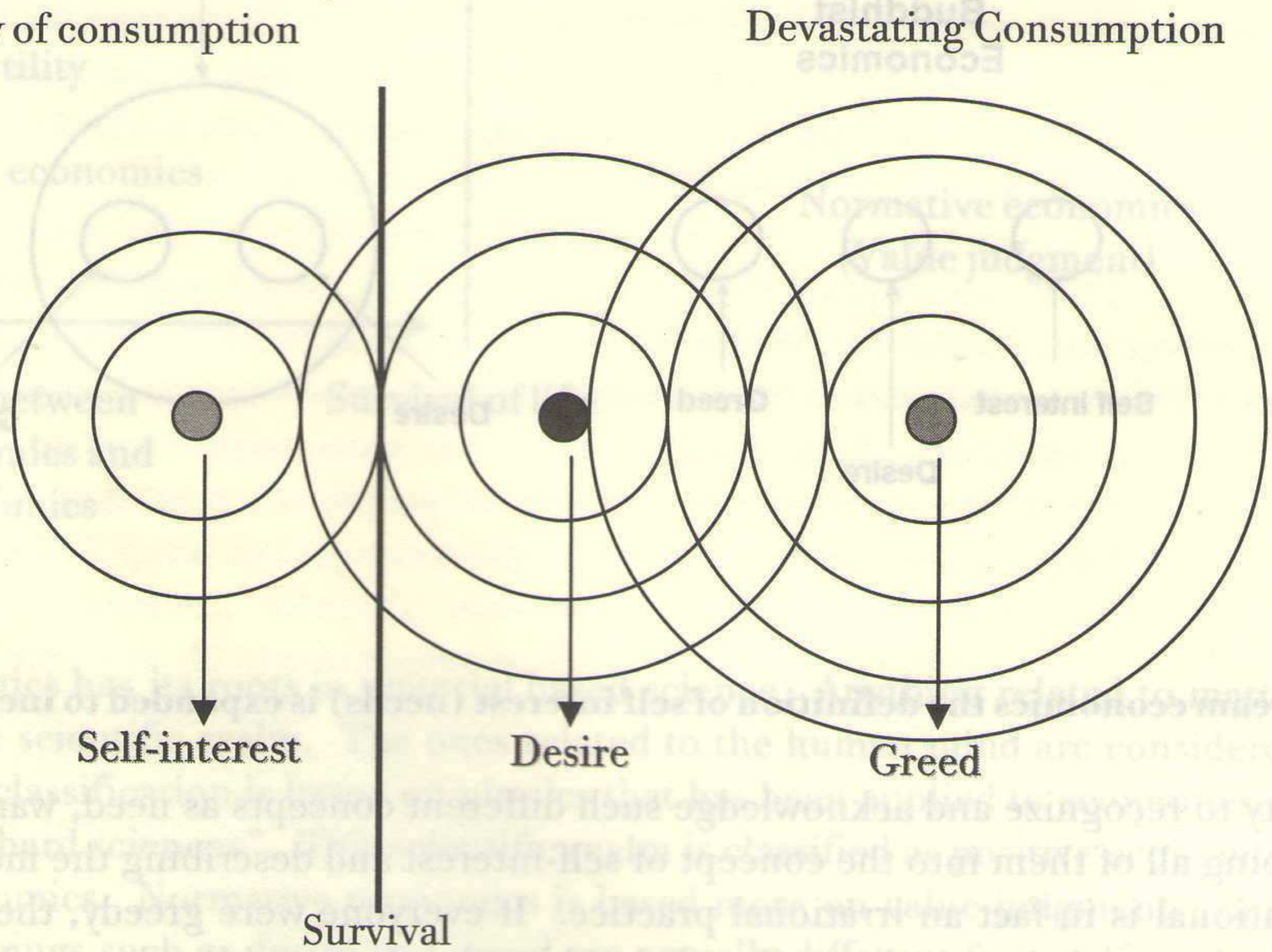
The differences in the understanding of human motivation result in the clear distinction between autistic economics and Buddhist Economics. The inability to validly measure desire and greed hardly justifies their inclusion into a category (self-interest) that implies necessities for basic survival is not rational and not the correct way to represent human behavior.

It can be demonstrated in Diagram 9 how the inclusion of desire and greed changes the acceptable view of consumption. In the real world most things exist in continuum. Each one has it own core that can be clearly observed to be distinctively different from the others, the same way as throwing a stone into a still water in the pond. The stone will break the water at the point of contact and create a noticeable wave moving outward in all directions. The waves diminish and eventually disappear. (In reality however, the mainstream economics stand of maximizing consumption implies that the wave never ends.) As a result, it is very difficult to clearly define the limit each concept with clarity. However, material based sciences want to define everything with clear, specific and precise definitions. It cannot deal adequately with things that exist in a continuum. This kind of thought results in denying the reality of the world.

However, we are really talking about self-interest as only self-interest that is physiological survival, efficiency of consumption can actually be clearly identified. The amount of consumption required to eliminate the human suffering caused by poverty (defined as lack of the four essentials required for survival) can be calculated by measuring or estimating the survival requirements for food, clothes, shelter and medicine for persons based on age, gender, climate and that person's health status. Consumption precisely at that amount should be considered as efficient consumption. *Sukha* in a human being does not come from consumption beyond the point of efficiency but from *pañña*, the ability to understand everything in its own nature, already being explained in great length in *Buddha Dhamma*. The encouragement of consumption beyond the point of consumption efficiency is the clear departure of Buddhist Economics from autistic economics. Self-interest in Buddhist Economics has a clear cut-off point (needs), while mainstream economics also includes wants and desires into self-interest.

Diagram 9 A Clear Demonstration of the Power of Buddhist Economics' Explanation of Consumption Efficiency

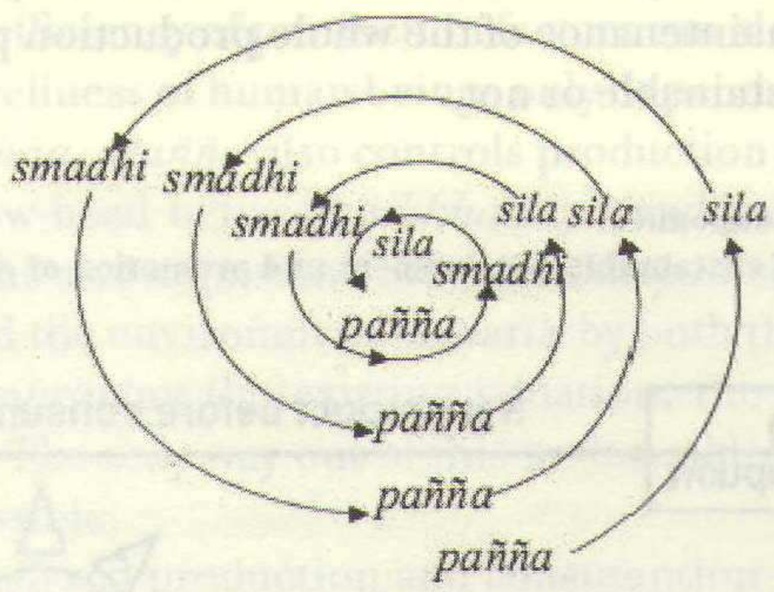
In reality, everything exists in a continuum.



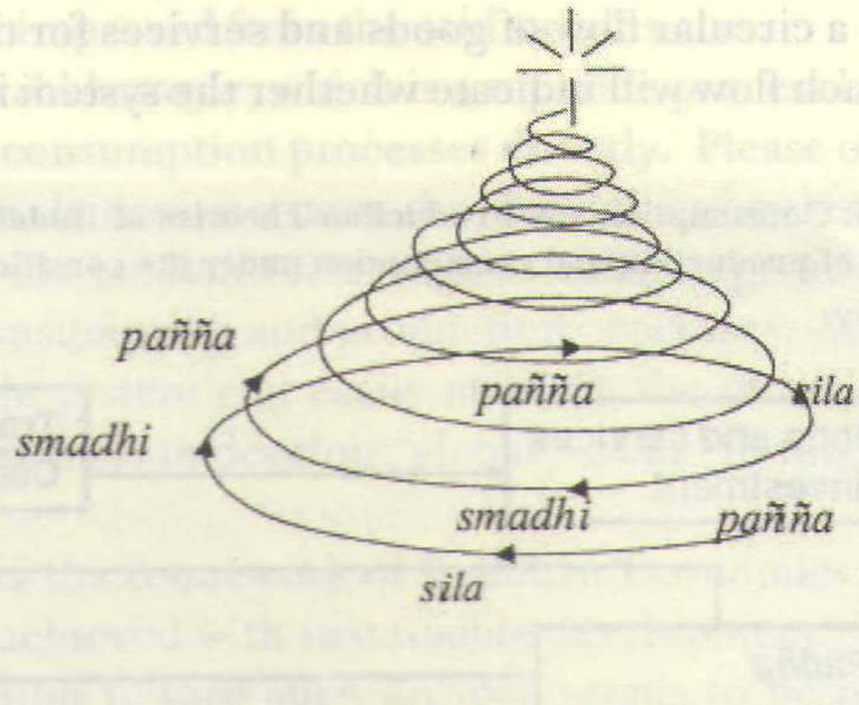
Combined Production and Consumption for Sustainable Development and Increased Wellness

After looking at all of the production and consumption concepts of Buddhist Economics, one can link all of them together. This linkage will demonstrate the conditions for sustainable development as well as improve the degree of wellness in the society. It should now be evident that wellness or *sukha* does not from consumption. Consumption only serves as a process to provide for the basic necessities and the elimination of the pain from their absence. Without this level of consumption (sufficiency), there would be a negative impact on further development of *samadhi* and *pañña*. Consumption beyond sufficiency will stimulate *tanha*, or craving or more desire. Apart from being the cause for *dukkha* or suffering, excessive consumption will also lead to the wasteful use of resources, or inefficient consumption.

The real wellness of a human being or *sukha* results from the development of *pañña* through *sikkhattaya*. It is not a linear development but more like a virtuous spiral that will not return to the origin spot but will uplift the mind and *pañña* to new levels.



A Cross Sectional Diagram of *Sikkhattaya*



A Vertical Vision of *Sikkhattaya*

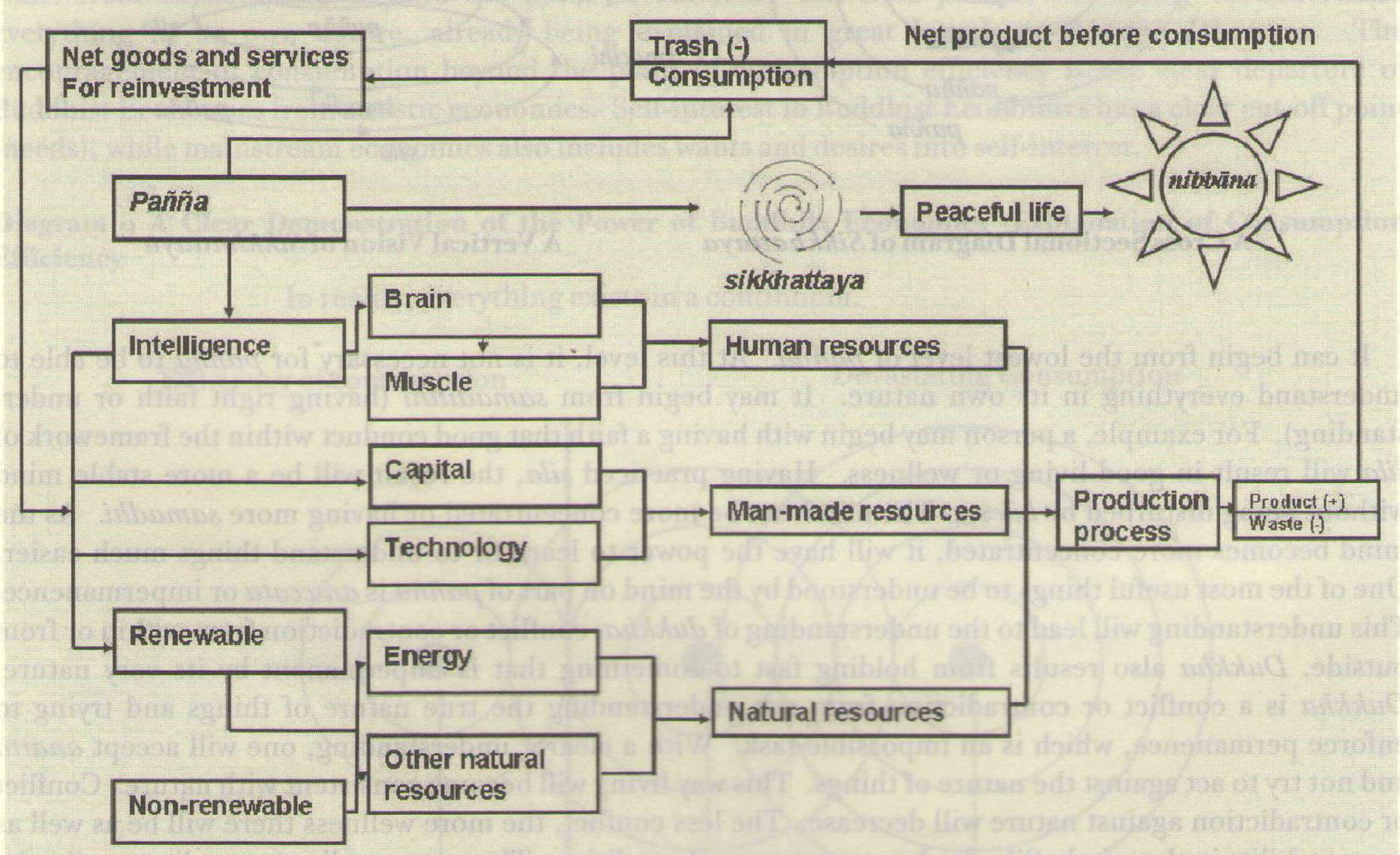
It can begin from the lowest level of *paññna*. At this level, it is not necessary for *paññna* to be able to understand everything in its own nature. It may begin from *samaditthi* (having right faith or understanding). For example, a person may begin with having a faith that good conduct within the framework of *sila* will result in good living or wellness. Having practiced *sila*, the result will be a more stable mind without being disturbed by *kilesa*. The mind can be more concentrated or having more *samadhi*. As the mind becomes more concentrated, it will have the power to learn or to understand things much easier. One of the most useful things to be understood by the mind on part of *paññna* is *aniccata* or impermanence. This understanding will lead to the understanding of *dukkha*, conflict or contradiction from within or from outside. *Dukkha* also results from holding fast to something that is impermanent by its very nature. *Dukkha* is a conflict or contradiction from not understanding the true nature of things and trying to enforce permanence, which is an impossible task. With a clearer understanding, one will accept *anatta* and not try to act against the nature of things. This way living will become consistent with nature. Conflict or contradiction against nature will decrease. The less conflict, the more wellness there will be as well as more stability in the mind. *Sila* also becomes a normal condition. The more one lives according to *sila*, the more the mind will work at its normal pace, it will be stable and be able to concentrate as well as to better understand things in their own nature. Such training of the mind will lead to less *dukkha* and less *dukkha* implies more *sukkha* or more wellness. Under this method of training, eventually one will live a purified life of the purified *sila*. The mind will be completely stable and calm or full of concentration or the achievement of *samadhi*. At this stage, *paññna* will always be illuminated to understand thing much clearer. This is the stage of having a purified mind, a calm mind and an illuminated mind at the same time. It is the mind that attains the stage of *nibbana*. It can be clearly seen that *sukha* or wellness can be developed from *sikkhattaya* and not directly related to consumption. Consumption only serves as a necessary condition that enabling us to live in the way of *majjhima patipada* or the middle path. The true wellness or *sukha* can only result from the development of *paññna* through the rigorous training of *sikkhattaya*.

Having gained a clear understanding of all of the related components in Buddhist Economics such as production, consumption and wellness or *sukha*, the way that have been explained, putting all these components together one can achieve the conditions for sustainable development and the improvement of wellness through the development of mind as shown in the Diagram 10 on the next page.

It can be seen from this diagram that the additional part included is the consumption process. The first part yields net products to be used for consumption. The second part is waste resulting from the consumption process itself. Consumption in Buddhist Economics is not to gain "satisfaction" as explained by mainstream economics but rather for the maintenance of physical needs of human beings as well as the physical production process to continue on it own course. The goal of the whole production process is

actually to produce wellness that eventually reaches the stage of *nibbana*. The main emphasis in this Diagram is a circular flow of goods and services for the maintenance of the whole production process. The nature of such flow will indicate whether the system is sustainable or not.

Diagram 10: Consumption and Production Theories of Buddhist Economics.
The system of production and consumption under the consitions of sustainable development and promotion of a peaceful life.



Sustainable development and the reduction of conflict or contradiction yielding a more peaceful body and mind is the condition when net goods and services produced are more than enough to maintain the existing system of production. The rest can be used to reduce pain and suffering of those who need it. With the help of technology, production efficiency can be improved.

In the Diagram, *paññā* serves as the main control mechanism of both production and consumption. What ought to be emphasized in this Diagram is that no matter how *paññā* has been used in both production and consumption processes, unsustainable development could still be one of the possible outcomes. This fact results from inadequate resources caused by their rapid deterioration to the point that they cannot be used to maintain the full functioning of the system. It could also take place in a very difficult environment that cannot actually support a human life. It could also be caused by the fact that the existing technological development of the community is not at a sufficiently high level, for example, in some difficult areas on the earth or on the moon. In these cases the survival of human beings must depend on external sectors that still have surpluses to support the non-viable system for a certain period of time while waiting for the improvement in technology. In this case self-reliance might come later on.

The second case demonstrates base-line sustainability. In this case goods and service available are just sufficient to maintain the system to continue at the existing pace. It is the likely case under the existing resources and the level of technology available resulting from human intellectual ability, if human intelligence is used well under the control of *paññā*. The third case and the most likely one is where the net product exceeds the needs required for maintenance of the system. The surplus can be used to support those who are still in pain or *dukkha* from having inadequate resources to maintain their basic needs (or those who are still poor in the true sense). The wellness of this group can be improved from the existing

surplus. If the surplus is still excessive, it can be used to improve the existing environment and eco-system as well. The efficiency of production factors can also be improved from the said surplus also.

The real wellness of human beings only depends on *sikkhattaya*, which is a separate process but directly related to *pañña*. *Pañña* also controls production and consumption processes directly. Please observe the two-way arrow-head between *sikkhattaya* and *pañña*. It demonstrates the dynamism between the two concepts. The two represent the possibility to solve the current crises that is causing great damage of resources and the environment on earth by both the consumption and production processes. Without any attempt at improving the existing situation, the whole system can easily move in the direction of self-destruction. The only way out of this undesirable situation is to develop "global *pañña*" in this system, as rapidly as possible.

Having analyzed production and consumption under the framework of Buddhist Economics, its can be clearly seen that peace and tranquility can actually be achieved with sustainable development. The rest is how to apply such framework to the real world. Action toward such an idea seems to be formidable. Nevertheless, the light already appears at the end of the tunnel. The most important task is to develop *sikkhattaya* into an actual operating tool that will result in much more improvement of *pañña*. At the same time transformation from capitalism to *pañña-ism* must be accomplished as soon as possible.

Theory of Utility

Actually, a clear understanding of the production and consumption theories the way they have been explained in Buddhist Economics, can be sufficient to reduce *the avijja* (ignorance) existing in mainstream economics. The transition from ignorance to *vijja* or *pañña* will contribute greatly toward improving wellness for human beings. The next step is for those who have *pañña* to implement them objectively. The main emphasis is to actually activate the *sikkhattaya* process into lively actions. All related mechanisms in details should be created in order to objectively initiate and mobilize the increasing practice of *sikkhattaya*.

As this work is a theoretical one, practical details for actual mobilization cannot be articulated here. On the other hand, it will seek to develop all other related theories of Buddhist Economics to reduce ignorance or misunderstanding resulting from the long term domination of mainstream economics. It will already be a good beginning toward solving many of the pressing problems in our future if the elimination of the *avijja,* which is deeply rooted among many of the thinkers influenced by mainstream economics, will allow them to learn and think differently.

The reason for bringing the utility theory into this discussion is because it is a major contributor to misleading of mainstream economics. It serves as the most important mechanism behind the consumption theory. It results in leading consumption as explained in mainstream economics to its dead-end path. It has caused alienation between human beings and their own nature.

The concept of utility was first recorded by a Greek philosopher, Democritus (460-370 B.C.), about 163 years after Buddha (623-543 B.C.). He valued usefulness of things in the form of subjective value. Democritus explained that such value would be reduced or even become negative if the supplies were in abundance. On the other hand, if the supplies were scarce such subjective value would increase significantly. In that case he suggested that the demand for those things should be curtailed. If everyone tried to reduce his/her own demand, things available would be relatively plenty. Each one would feel wealthier instead of feeling poorer. This explanation signifies the subjective nature of the utility of things. Such thought are close to Buddhist Economics in the sense that morals and ethics were also brought into consideration. There were components of *sila* and knowledge in a way not too far from *sikkhattaya*.

By the time of Aristotle (384-322 B.C.), there was a distinction between natural needs that must be satisfied and unnatural want with no end. The part of unnatural want should not be satisfied. This idea is very close to that of Buddhist Economics that could lead to the analysis of consumption efficiency. Unfortunately, this good idea did not receive much recognition afterward. The deterioration of Western economic thought began during the so called Enlightenment period. In the author's opinion it should be considered as a period of ignorance, because the emphasis was more on human intelligence than *pañña*.

Part of the reason that Aristotle's idea received inadequate attention was because of his own confusion. He explained that desire that could be satisfied by labor or through barter was desire for natural needs. Aristotle viewed that an economy that required money as the medium of exchange was an economy stimulated by greed. Unfortunately, Aristotle did not explain clearly why it worked that way. His good idea was eventually overlooked.

At the same time, Aristotle further added his own idea of utility theory to that of Democritus. He linked utility with the work of supply and demand. He pointed out that the scarcity of anything would raise its value or the utility from having it. He compared gold and iron. Gold was a metal without much useful value but it was more difficult to find than iron whose useful value was higher. The scarcity of gold compared to iron resulted in its higher value or utility. He also went on to explain the theory of marginal value that was further developed by the Austrian School in the 19th and early 20th centuries from a marginal unit known today as marginal utility. It should be noted in addition, that the important reason for overlooking the usefulness or the utilization of things has been due to the gradual switch from the concept of value to that of price. This switch has significant implications. It actually transforms the reality of the relationship between human beings and the things in question in terms of their utilization revealed to them, to something subjective. While utilization or usefulness is a natural function of the thing from the point of view of a human being, its price does not necessary reflect that. It has become more of a human convention that has no solid base at all.

After Aristotle the thought on utility was not mentioned again until the time of the Scholastic School in the 13th century led by St. Aquinas, the most famous representative of the Scholastics. St. Aquinas was responsible for the revival of Aristotle's thought and the Roman Laws and worked them into Christianity. All were well integrated into a continuation of Greek thought into the medieval period. Such thought eventually influenced contemporary Western economics. Among the Scholastic thinkers who reintroduced the concept of utility was Pierre de Jean Olivi of the Franciscan sect, a rival sect of St. Aquinas's Dominican Order. Olivi explained that the economic value of anything was determined by three factors: scarcity, usefulness and desirability or desiredness. Aristotle's "needs" were also elaborated and explained as utility. The word utility was classified into two meanings objective utility of usefulness and subjective utility. The first meaning implies the usefulness of things from the point of view of a human being. The second meaning reflected human desire for that thing. He also pointed out the case of value paradox between bread and water and gold and diamonds. Water and bread were essential to human life. Yet they were much cheaper than gold and diamonds that were much less useful. The difference could be explained by the use value and the exchange value. Water was much cheaper because of its plentiful supply. It was not because of the demand that reflected human desire. Such explanation put the end to the prior confusion. It has become the standard of analysis of Western economics since then. At this point it is no longer relevant to talk about the usefulness or utilization of the thing involved. The only relevant concept that remained was the exchange value or price. It marks the beginning of the use of price as an instrument to measure value of everything.

The concept of utility was brought into consideration again at the beginning of the 16th century at the Scholastic School of Salamanca by a person named Diego de Covarrubias. He explained that the price of any good was determined by both utility and its scarcity estimated by the consumer. However, he added no new knowledge over Olivi in the 13th century. Nevertheless, this explanation was influential to the thought in Italy up to the 18th century was quoted in the work of Abbe Ferdinand Galiani in 1750.

At the same time as Covarrubias, there was a theologian and an economist by the name of Francisco Garcia who wrote a book in 1583. Apart from explaining the relationship of utility and scarcity, Garcia also used utility to explain the quantity of money. He pointed out that the wealthy person tended to value his own money less than he did at the time when he was poorer. It could also be compared to the poorer ones at the same time. This fact explained the nature of diminishing marginal utility of money. This observation has been developed further in mainstream economics as the demand theory that equates the marginal utility of money with the marginal utility of goods under consideration, in order to decide whether the goods should be purchased or not.

The last philosopher of the Scholastic period from Salamanca was a Jesuit cardinal named, Juan de Lugo. He explained that the value of any commodity was from the utility behind the demand and the scarcity behind the supply of the commodity. De Lugo was the last Scholastic at the beginning of the decline of the Spanish Empire. The economic affluence of Spain was displaced by the increasing prosperity of northern Europe.

At the same time, since the middle of the 16th century, there was the quiet revolution of Copernicus, the originator of materialistic monism. Under this thought, matter is more important than human consciousness since the human body consists only of matter. This thought was the beginning of a distinct and separate subject of "science" as it developed in the West. After Copernicus, the thought was further developed by Galileo, Beacon, and De Carte, respectively. During that time, there was a non-scientist who could be considered as an ultra materialist, Thomas Hobbes. Hobbes still has his influence over the contemporary concept of utility. He introduced the concept of pleasure and pain to represent goodness and badness. A thing is good because it results in pleasure, and it is bad because it results in pain. Later on the word pleasure was replaced by utility. As utility explained by Olivi is the result from a human desire to be satisfied, that is, utility results in pleasure.

After Hobbes, the one who reiterated this idea and continued its usage was John Locke who specified the utilitarian standard, one hundred years before Jeremy Bentham. Locke took Hobbes' concept and extended it to the concept of self-interest and dubbed it as a general law of nature governed human behavior. However, the concept of utility in contemporary usage came from Jeremy Bentham who applied the "scientific method" to calculate the utility of each individual, added them up to get total utility and then subtracted total pain from total utility in order to measure the net happiness of the society, know today as "social welfare". At this point, pleasure, happiness and utility are the same thing. They are used to define the word utility in mainstream or autistic economics right up to the present.

It can be seen clearly that the meaning of utility was changed between the Greek time and Bentham's time. Its meaning was changed from usefulness in the form of subjective value to human desire for a thing because it results in pleasure. Eventually it has come to mean happiness. This process of transformation in its meaning was dominated by materialistic monism. Happiness meant pleasure from consumption that derived from the demand. There was almost no mentioning of utilization at all. The actual utilization of the concept of utility has been the determination of price of goods and services in question. This way of thinking results from the supremacy of materialism. For the reasons discussed above Kenneth Boulding (1968, 193-194), a well known U.S. economist from 1960-1980 made the following statement:

> "Economics clearly recognizes that all material objects are intermediate goods, mere means which serve the end of increasing the ultimate spiritual product known technically as 'utility'. The economist does not know what utility is, any more than the physicist knows what electricity is, but certainly could not do without it."

It can be generally accepted that Boulding's statement is true because most mainstream economists do not make any attempt to understand the meaning of utility. Neither do they attempt to trace the development of the word. It is only used to serve as a tool to explain the demand theory with its focus on the market mechanism, the joint solution of the supply and demand. Economists understand utility to mean pleasure from consumption of goods or services. At the same time for the demand to be effective, the one who demands must have money or income. Money itself is also treated as a commodity. It also results in a diminishing marginal utility as the quantity increases. In order to move further away from what was already known during the Scholastic time in the 16th century, modern economists use the logic in mathematics to explain the condition for utility maximization from purchasing of any product by a consumer. The necessary condition is that the marginal utility gained from consuming any commodity must be equal to the rest of them. Such marginal utility from consumption of each commodity must also equal to the marginal utility of the money being paid for those commodities. The first equation is the utility function U(X) derived from consuming various commodities X_i where i = 1, 2 ..... n.

$$U = U(X_1, X_2, ..., X_n) = U(X)$$

If P_i stands for the price of good i, and Y is the individual income reflecting the limitation of their budget. Total income at anytime can be represented by the following relationship.

$$Y = \sum P_i X_i$$

In order to gain maximum utility (U) under the condition of a limited budget (Y), the process of utility maximization can be shown by the following Lagrangian function of L.

$$L = U(X) - \lambda[Y - \sum P_i X_i]$$

The first order conditions for the utility maximization are:

$$\partial L / \partial X_i = U_i - \lambda P_i = O$$

$$U_i = \lambda P_i$$

$$\partial L / \partial \lambda = Y - \sum P_i X_i = O$$

Where $U_i = \partial U / \partial X_i$ is the marginal utility from consuming a commodity i, hence

$$U_i / U_j = P_i / P_j$$

The said result implies that the increasing rate of substitution of each pair of commodities is the same as their price ratio. The said condition can be rewritten as follow.

$$U_1 / P_1 = U_2 / P_2 = \ldots = U_n / P_n = \lambda$$

The Lagrangian multiplier λ indicates the rate of increase of U when income (in terms of money) increases. It represents the marginal utility of the money of the consumer.

$$\lambda = dU / dY = U_y$$

This solution is based on the following set of assumptions.

1) The utility function must be continuous and "smooth"
2) $\partial U / \partial X_i \rangle O$ implies that the more the consumption, the more will be the marginal utility from the said commodity.
3) $\partial U^2 / \partial X_i \langle O$ implies that the marginal utility increases at a decreasing rate
4) $dU^2 \langle O$ the utility function is convex to origin

Each of the assumptions in this set has only one use and that each has the property of mathematical tractability. They do not necessarily reflect reality. The first assumption is handy in order to enable the use of derivation or integration in calculation. Otherwise, it cannot be done that way. Apart from being continuous, the function must be "smooth" also, because if it is not "smooth", the said tool cannot be validly used. Especially in this case, Nicholas Gorgescu Roegen proved in 1954 (503-534) that the indifference curve under this assumption can never be realistic. It can only be true under the condition of quasi-indifference curve, derived from lexicographic orders. Such a proof implies that simple mathematical tools cannot be used in this case. In order to make use of the tool it must be assumed that way. Such assumption can never be realistic. Most mainstream economists choose the latter, in order to use the method that yields explicit results at the cost of having unrealistic assumptions and results. All efforts appear to be meaningless except to deceive themselves as well as others to be convinced even when the solution is not valid.

The second assumption states that the more the consumption, the more utility will increase. This assumption is only true for certain set of specific commodities, and such assumption may not always be true. The same can said for the third assumption. The forth assumption is needed for the maximization of the utility under budget constraint.

It is evident that using mathematics this way, the one who analyzes it already has the answer before hand. The mathematical proof is only been used to show that the method of enquiry is "scientific". This

example shows clearly the use of human intelligence in the wrong way. It is intelligence that is not under the control of *pañña*. It results in *micchadithi* or wrong belief or wrong view and can be harmful to human beings in the end. If this situation is explained from the standpoint of *Buddha Dhamma*, it is a way to sanctify greed to be generally accepted, because it can be "proven scientifically" (or in this case, it has a support from the mathematical logic).

It should be observed also that, the above utility has no time dimension. It implies that everything takes place instantaneously. It is a general characteristic of a static analysis. It can be interpreted that the consumer enjoys, is happy, is gratified, is satisfied, is delighted or what ever word is chosen to represent the feeling of that consumer within the context of Western civilization. (It should also be reiterated that the word "happy' in the West is not same as the word *sukha* in *Buddha Dhamma*). It should be noted also that the word utility has not been mentioned because economists themselves do not understand what it means, as Boulding pointed out. After consumption has taken place, the said feeling will gradually dissipate. Hence, gladness, gratification or satisfaction from consumption only happens over a short span of time and dissipating afterward.

The fact that the utility function has no time dimension implies that gladness or satisfaction from consumption is a feeling that exists only momentarily. Another property of the function is that it cannot be used for inter-personal comparison. The set of these two facts made any attempt to satisfy a human desire become absurd when facing another hard fact in economics, as resources are always scarce. For example, economists normally cannot decide how the limited resources should be allocated due to the nature of interpersonal incomparability. Should the resources be used to build a few luxurious cars for the rich or to produce enough food to feed many of the poor? The answer from conventional economists would be whoever has the money is eligible to consume. However any ordinary person would use common sense when facing such an option. The resources should be produced to feed the poor, period. After all, the survival of the poor can in the end generate more economic wealth. A strictly positive economist will argue further that value judgments should not be used in this case, because the subject pretends to be value free.

It should cast serious doubt on the subject when the answer should be quite obvious for everyone and the mainstream economists cannot decide with certainty. The logic in the thinking of the mainstream economists should be questioned. The major fallacies are the mathematical relationship in the utility function itself, together with the set of assumptions discussed above. The only reason for adopting such fallacies and making believe that the explanation is valid is for the subject to appear to be positivistic or scientific regardless of the huge cost of ignoring reality.

In general, the mainstream economists would also claim that in reality, no one can use resources without limit because everyone has limited assets or income. Unfortunately, in the real world where big income gaps prevail, some may be able to use resources for their momentary pleasure in a devastating way while the rest may still not have enough to survive. The ones who have more can escalate their desire to have even more because they have fewer limitations than others. Such a scenario is not far from reality. It has originated from the fact that the concept of utility cannot be clearly defined within the context of Western civilization. The word has been vulgarized since the time of Hobbes.

One of the reasons for the vulgarization of mainstream economics is because of its attempt to be a "scientific" subject in a wrong sense. The real meaning of "science" is to understand everything in its own nature. Unfortunately, the scientific method of economics is more of a method of logical deduction based on unrealistic assumptions. It derives from the extreme logic of black and white, leaving out the larger gray area in the middle. It is known as Aristotelian logic which has been developed into usual mathematics. It is a fiction that any subject that uses mathematics as its analytical tool, can automatically turn into "science". What we land up with is a fictional science that is science fiction.

Utility or pleasure resulting from satisfaction of human needs has its origin from self-interest which is a necessary instinctive nature of all living things. It becomes necessary to compete for the survival of each individual life as well as to continue its own species. Self-interest as part of the instinctive nature necessary for survival and continuation of the species cannot be considered as an undesirable thing.

Self-interest is useful for initially stimulating the needs for survival of human beings and other living things. After that, it can be transformed into want or desire and further developed into greed, especially for human beings. Such transformation does not exist among other living things. Greed has always been considered by all religions to be evil. This can be seen in empirical evidences from all human societies far back in history and continuing even up to the present time. It is a doctrine in all religions.

The application of Aristotelian, black and white logic will create a blind spot to the big gray area. The fuzzy logic, which could be more correctly referred to as a clear, non-dualistic logic, is the kind of logic developed in *Buddha Dhamma*. Within the gray area, there are infinite shades of gray that can be distinctively classified one from the others. This type of logic can also be applied to mathematics, with a much greater degree of complexity. The advantage of such application is that it can represent reality better under some specified conditions. In the real world black and white are only the exceptional cases. It can be applied to utility. If self-interest is for satisfaction of basic needs, it may cause a problem to the others but it can be understood for the sake of individual survival. However, as it turns into desire it can get into a territory where it can deny others necessities. As it develops into greed, the burden on others will increase even more. Explaining with clear, non-dualistic logic must be accompanied by appropriate conditions so that it can reach a conclusion much closer to reality.

As developed originally based on Aristotelian logic for a clear distinction, utility has at one end self-interest, and at the other end must be non-self-interest. Such logic does not leave the room for other shades of self-interest such as desire and greed. The fact is that these different shades have no clear demarcation; discussion of desire and greed has been rejected as being non-scientific and treated as normative or based on value judgments. In fact, those who claim to be positivistic only generalize from a specific case. It is a case of the incorrect application of science or the application of science in a misleading way. It has been done out of ignorance. It indicates the lack of effort to understand things in their own nature. The nature of this problem is not confined only to economics, but all other subjects based on such dualistic logic. Fortunately, the impact of this problem will be less in subjects that are not directly related to living things. Among all of the subjects within the so called social sciences, economics, because its penchant to mathematical applications derived from the said dual logic, is most adversely impacted. It is ironic that the belief that introducing mathematics of this nature would strengthen economics as a "hard" science, in fact has turned economics into a rigid subject leading to solutions that are far from reality. Its conclusions result in creating rather than solving human problems.

A detailed introduction of the utility theory in this case has the purpose of demonstrating the vagueness of the concept developed from Western civilization. The attempt to make economics more positivistic has caused even greater misrepresentation. The original purpose was to use the concept as a bridge to explain the demand function or the demand theory has resulted in misunderstanding and the devastation of resources and the environment. The original cause is from the inability to comprehend consumption well enough. The introduction of the utility theory in mainstream economics is a good example of *micchaditthi* or having a wrong view of reality.

Reconsidering utility from the perspective of Buddhist Economics, it can be clearly seen that if consumption is understood in a Buddhist way, there is no need to even introduce the utility theory. Consumption is not for generating pleasure or happiness as explained in mainstream economics but is rather to support life to continue its living in the middle path. Such a style of living does not really require a great deal of consumption. More than sufficient consumption is a way leading to more *kilesa* or defilements. It is not the way to *sukha*, either.

Nevertheless, *Buddha Dhamma* also has a concept or a theory related to the relationship between *dhamma* (meaning the nature of a thing) and its purpose or objective. According to a certain principle, any practice must be anticipated in advance to reach the objective determined otherwise such action will take place without any clear direction to the achievement of what is actually planned. (Phra Dhammapitaka, 1985, 686-688) Therefore, the objective or the purpose must be clear from the outset. The word utility when being translated into Thai means usefulness. However, the word utility in English as it is used in economics has no clear meaning. In order to end the confusion, Buddhist Economics will call

this theory the theory of utilization to mean usefulness in this book, since its meaning in English can be confused with the word "utility". It is the only practical value that any thing can reveal to a human being, especially the relationship between a material thing and its useful value to a human being.

By way of examples, in his book *Buddha Dhamma* Phra Dhammapitaka, explained with two examples. The usefulness of thinking with the objective of reducing *dukkha* could be achieved through *yoniso manasikara* (wise consideration or analytical reflection). (Phra Dhammapitaka, 1985:670) It is a way to end ignorance of the cause for *tanha* or craving. Such an analytical reflection is for thorough understanding. As for *samadhi*, its utilization is to be able to generate *pañña* to understand everything in its own nature (Phra Dhammapitaka, 1985:883). The emphasis here is that the nature of utilization of everything must be explicitly clear to a would-be user.

In Buddhist Economics, the utilization of consumption is not to generate pleasure or satisfaction or even happiness but to support life to be able to live according to the principle of middle path of *majjhima patipada* discussed before.

In conclusion, the parallel to utility theory in mainstream economics is the theory of utilization in Buddhist Economics. The implication of this theory is to maximize the usefulness of everything discussed in the theory of economizing. The concept of utilization has also been introduced by neo-humanist economics that propose the concept of progressive utilization (PROUT), that is to employ all technologies available to produce everything most useful for human beings, with the least danger to human beings as well as being able to satisfy basic needs of everyone (Sarkar, 1992:12-20). Anyway, without any emphasis on *pañña*, there will be a problem of not having a clear understanding why things should be produced for progressive utilization. From this argument it is clear why *pañña* is a core concept in Buddhist Economics.

Distribution Theory

The distribution theory is considered to be highly significant in the mainstream of economics because the utilization of production is consumption. As mainstream economics explains that consumption results in satisfaction or happiness, allocation or distribution for consumption becomes important. It has direct implications on social welfare. Whether the whole society will be peaceful and orderly or not depends very much on the well functioning of the distribution system. From the standpoint of self-interest and justice, the solution of distribution should be to each according to his/her own ability. Explaining such an argument in terms of economics, each should receive according to their ability to produce that is according to the person's productivity. Given the said principle, its implication should be clear to everyone. In actual practice, calculating productivity of each factor of production without any clear define rule can be a problem. This is due to the inability to actually calculate the productivity of each factor of production to the point that everyone will agree that the methods and rules are correct with one hundred percent precision.

Because of the nature of this problem, a socialist has proposed that products should be distributed according to the needs of each person. However, this proposal is in direct conflict with the principle of self-interest. This way, each one may demonstrate their individual needs as more than they actually are. This problem has already surfaced in the former communist countries, socialist counties and even some welfare state countries.

John Stuart Mill, the first economist to separated laws of distribution from the laws of production explained that distribution must be done according to societal laws or traditions. Unfortunately, economists of later generations wanted to demonstrate economics as the hard "science" in the social sciences. Everything can be explained by "scientific method", when in fact the method has been derived from self-interest together with the concept of justice of "to each according to his/her ability, and the concept of competition introduced by Hesiod in Greek times. Hesiod explained that conspicuous consumption would result in competition, and competition should be considered as a "good conflict", because it would help reduce problems caused by scarcity. He also warned that the acquisition of wealth must be through correct means. It should not be from stealing or robbing or taking away from others without consent. This explanation reflects the principle of justice. The emphasis on individual property

rights began with Democritus. In Greece, at that time, the emphasis on individual property right was only applied for the aristocrats. Such belief was different from that of the king and emperor in the East, or even in India at the time of Buddha. When the owner of wealth died without any heir, the properties would automatically revert to the king or emperor. Therefore, the concepts of competition, justice, and individual property right, all have been rooted in Western civilization for a long time. If the mainstream economists and their "scientific" method suggest solutions differently from such cultural roots, the will be a problem of credibility in their method of thinking and the calculation that follows.

The distribution theory provides a consistent answer to the said tradition: given perfect competition, a factor of production must receive according to its productivity. This solution can by derived from the production function together with necessary assumptions for mathematical tractability and the condition of perfect competition both in the commodity and factor markets. It is also true that such mathematical logic has been used to support the "scientific" method of economics. It has been designed in order to reach the anticipated answer. If the answer does not turn out to be so, it will be in direct conflict with the belief deeply rooted in Western civilization. Such conflict will risk the possibility of the rigorously constructed theory being questioned.

If the scientific proof is merely used as a way to confirm the ancient belief, the said proof does not seem to be necessary. The method being used will not be more than a good trick. (The details of the mathematical proof are not complex and interested readers can find it in most economic textbooks.)

The distribution theory in Buddhist Economics can be clearly specified from its basic standpoint that has the goal of everyone to be *sukha* without burdening oneself or others. *Dukkha* from having insufficient material needs for survival must be relieved, regardless. Everyone should have enough to the point that each can live well along the middle path. Using Western terms to explain such position, it can be said that having basic necessities, sufficient to live, are a fundamental human right. Having less than the level of consumption efficiency will result in *dukkha*. Having more than that will finally result in *dukkha* as well, since it will cause a spiral of desire. Nevertheless, it does not imply that everyone must be able to receive the same amount, as the physiological needs for each one are different. Therefore Buddhist Economics must consider the appropriateness of individual's needs in the theory of distribution.

The theory of distribution in Buddhist Economics does not depend on production capability of each individual but more on basic necessities for living. It may sound like a socialist idea or an idea taken from the concept of a welfare state. The clear departure of distribution in Buddhist Economics from these two ideas is that the other two are still based on the self-interest deeply rooted in Western civilization to the point that it is claimed to be human instinct. Whether such a claim is true will not be discussed at this point. Unfortunately, this nature of human beings has resulted in internal conflict within socialist and welfare states to the point of being the major paradox discussed previously in this book.

In *Buddha Dhamma*, "self" does not actually exist. It is more of a human belief and a social convention. There cannot be self-interest or selfishness without "self". At the same time, the emphasis on loving kindness, sharing and giving are more of the standard practice in *Buddha Dhamma*. As a result, distribution of products so that everyone can live a life on the middle path regardless of their production capability is the clear stand of the distribution theory of Buddhist Economics. This way, any attempt at measuring marginal productivity of each factor of production is not necessary. In reality, it cannot be accurately measured anyway. It is the firm objective of a Buddhist that human beings and all other living things wish to co-exist peacefully on this earth, even if it is not the common objective of all human beings. If distribution of products is based on productivity of each factor of production, it will be in conflict with the said objective. Buddhist Economics only stresses sufficient living but not necessarily living with "good quality". It mainly emphasizes on self-reliance, especially, self-reliance on *pañña*. No one can help another to improve that person's *pañña*; it can only be done by one's self.

Other Applications of Buddhist Economics Theories

The Buddhist Economics theories discussed above are only serving as the core theories in any economic subject. The main purpose of this study is to demonstrate the distinctively different nature of Buddhist and

mainstream economics. These theories are all based on what has been a long explanation to the Buddhist understanding of the nature of human beings. It is what the author is convinced is the explanation that is closest to the real nature of human beings. There is no plan to construct here more theories than what have already been discussed. Such expansion of the theories of Buddhist Economics, require more time, knowledge and experience than the author has. They must be gradually developed on a firmer base. Instead of presenting many more theories and facing the risk of being attacked as being incorrect ones, the rest should be left for the readers and those who are interested in this new subject to contribute their thoughts based on the understanding of a human being.

Having presented four theories, namely, production theory, consumption theory, utilization theory and distribution theory, there will be a short attempt to apply the these four theories to three other areas that can be considered most crucial for the development of Buddhist Economics. They are time-use theory, the theory of economy and the theory of work satisfaction.

Time-use theory. Time is considered as economic wealth since everyone is entitled to make use of time in a way to benefit each individual the most, given the existing knowledge and ability of each one. Moreover everyone is allocated an equal amount of time daily, namely 24 hours a day without any discrimination on the ground of economic status, sex, race, age, faith or belief. It can be considered that everyone has been allocated "approximately" equal amount of time. The word approximately reflects physiological differences resulting in differences in the ability of each individual to make full use of the time. Nevertheless, it can be considered as an economic wealth being allocated to each one more equally than other forms of economic wealth. It also comes to each one naturally without any need to beg for it from anyone.

In general, mainstream economics will consider the gain from time-use as pleasure. From now on, the term worldly pleasure will be used instead of utility to avoid confusion. It should be understood also that the term worldly pleasure is used within the framework of mainstream economics, while *sukha* and *dukkha* are the concepts used in Buddhist Economics. Pleasure from time-use in mainstream economics results from various alternatives such as: resting and sleeping in order to rest the body for its own reparation and the renewal of its vigor; opportunities for the mind to be relieved from pressure or for relaxing or friendship; or working when the work is considered more as an economic cost as a hobby. However, in mainstream economics, when working is considered as pain, it must be compensated by wage or things that can be consumed to generate pleasure. All these are examples for time-use with the goal of maximizing pleasure. Such pleasure should also imply good health and good spirit.

How each individual uses the time must depend on that person's preference. Since money and productivity has become the main consideration in capitalism and consumerism money has been used as a medium of exchange as well as being used for investment and for speculation. In Buddhist Economics, money has increasingly been used to stimulate greed. Under these circumstances, money has also been used as an instrument to measure efficiency of time-use. For example, if the work is offered in exchange for money, there will automatically be a consideration of how to gain the maximum amount of money within a given period of time. If the work is done at home with some leisure time, there must also be a comparison with other alternatives such as to work for money outside and instead hire someone to do the work at home. Even for leisure or amenity there must be a calculation on how much time and money will be spent, and whether it's worth it to have such leisure. In other words, there will be always an attempt to translate time-use into money. After that the money will be further translated into pleasure through holding it as wealth or exchanging it for consumption. This pleasure is considered as happiness most of the time. However, the anticipated result from pleasure may not turn out to be happiness. Apart from creating unnecessary complexity, this way of thinking of time as money may not achieve the anticipated result of happiness.

From the standpoint of Buddhist Economics, one must begin from a clear understanding of the word *sukha*, even if its in-depth meaning cannot be understood. The simplest understanding of *sukha* is that it is the condition or the situation where no burden has been imposed on oneself or others. This concept of no burden does not imply that one must not use any effort; most of the time it may require a great effort or

even the loss of life. The real meaning of burden is mental burden: the feeling of uneasiness, conflict or mental pain. What is considered very hard work by most people or work that involves risking one's life, if it is done for good result, with good intentions, is considered as a good thing to do. In *Buddha Dhamma*, everything begins from the intention which is the mental part. Good things come from good intentions and bad things come from bad intentions. Intention is the psycho-motor mode of thinking. Any action resulting from good intention is not an action that is considered to burden oneself. Buddhist Economics has no intention for human beings to be aloof and doing noting or avoid hard work or hard decisions. It is the opposite. It urges human beings to show loving kindness and have compassion for others. In order to achieve such a goal, if one must work hard and use great effort, all those things should be done. The only exception for not doing such a thing is when it results in mental burden or *dukkha*. The act of burdening others has easier implications to understand. As others' feelings or understanding can differ from one to another, any cause for physical uneasiness without the consent of that person is a thing that should not be done or imposed on others.

From the standpoint of Buddhist Economics, the full utilization of time is the time-use that will result in a person's "*sukha*". As *sukha* is originated from *pañña* through *sikkhattaya*, *sukha* does not result from production for consumption. Production for consumption is only a necessary fraction of the time-use available each day. Neither is there any need to produce everything for one's own consumption. As the need to consume to maintain life is not great and other requirements can also be acquired through exchange, under this situation the best utilization of time is to help the others to be free from *dukkha*. Such a method of time-use is the one chosen by Buddha himself and his disciples.

Let us look at a detailed analysis of time-use of Buddha as a case study. Buddha was a very able teacher. He selected his teachings to suit the target groups. His own goal was to disseminate his teaching to the widest audience possible. Apart from other religious leaders and kings, and spending most of his time for those whom he directly ordained so they might achieve enlightenment, he chose to teach those who in his clear vision would be the ones who could reach the state of enlightenment. All of these ones would be able to spread his teaching as widely as possible. He also recommended as practical rules for his disciples to use local languages for teaching people in different regions. (Gard, 1962: 63-68) Because of such tactics, his teaching was spread throughout Asia without any coercion as with some other religions. It did not require faith in anything except self-actualization mainly through a person's *pañña*.

The example discussed above is how time has been used most efficient in Buddhist Economics. It is much different from the time-use concept in mainstream economics. It is a way to use time to benefit others as much as possible. The result has been that the ones who use their time in this manner are *sukha* as well as contributing to a peaceful world. There is no need to calculate such a contribution in terms of money, the way it has been done in mainstream economics. The only necessary condition is that a person must know how to find *sukha* directly from one's own time-use. At the same time, that time can be utilized as much as possible for the benefits of all other living things. Such action does not result in burdening oneself. It is the way that Buddha did it before. If there is a critical mass of people who clearly understand this concept and prepare to take consistent actions, the world will be a much better place to live.

Theory of economizing. The name of this theory may not directly convey its main purpose. It is actually closer to the concept of efficiency of consumption. The efficiency of production and consumption in Buddhist Economics is actually the same thing. At the same time, it also seeks to optimize the utilization of scarce resources to their fullest. It reflects the fact that a human being can make the best use of existing resources. Its implication is the peaceful and sustainable co-existence of living things on this earth.

Thus the word "economizing" here does not carry the same message as its counterpart in the West. In the West, savings or economizing today is a way to increase the opportunity for resources to use in the future, which also implies the act of self-interest. On the other hand, efficiency of consumption is the way to fully utilize said resources, while users are content with such action. Neither practice aims for more consumption in the future. Such evidences exist in the *Tepitaka*, the conversation of Ananda (a disciple close to Buddha) and King Udena.

Udena : What will you do with the old saffron robe?
Ananda : Try to mend it.
Udena : What happens if you cannot mend it?
Ananda : Sew them together into one useful piece.
Udena : If you cannot do that because they are close to disintegrating, what will you do?
Ananda : Make them into a piece of cloth suitable to lie on.
Udena : If it is beyond doing that, what will you do?
Ananda : Put them together in thick bundle for sitting on.
Udena : If the sitting bundle is completely worn out, what will you do?
Ananda : It should be burned into ash and mixed it with cow manure and pasted on the mud wall of my residence to make it looked better.

(In the Thai Tepitaka vol. 7. Vinaya No. 626, 1982:24)

The above idea is close to the Puritan ethics that went by the principle of savings and economizing as well as living a simple life. The Quakers were one of the first groups of pioneers to the American continent. They had a similar but distinct ethic from the Puritans that was similar to the ethic behind Buddhist Economics. The Quakers who settled there, believed in hard working, communal participation and living a simple life, and dedicating their lives to spirituality. Their basic rule in their living was that each one should not desire for more materials than they could effectively use. They taught their children to "*use it up, wear it out, make do or do without*" (Elgin, 1993: 50-52).

The above example of Quaker ethics is very close to the ethic behind Buddhist Economics. If the goal of a human being is to seek for spiritual happiness, the desire for material goods would be secondary. Material goods should be used as effectively as possible. The need to burden others will be much less. The Quakers had this thought because they believed that lives on this earth should be dedicated to God. This belief actually implies non-self. Unfortunately when the belief in self-interest becomes an overriding belief, the goal of life that should be dedicated to God gradually diminishes and eventually disappears.

The above examples of Puritan and Quaker ethics are meant to show that the concept in Buddhist Economics is not unique. Anytime that excessive wants are ignored (for whatever reasons) in favor of necessity, a human being will find peace and serenity in life without much pressure from material wants. In this way, human beings can exist in harmony with nature and full consciousness.

In today's societies both the diminishing concept of non-self in Buddhism and the decline in the Puritan ethics of the Quakers has been due to the tendency of human beings to accumulate more than necessary. It should be made clear at this point that a human being in its very nature is not born with excessive material desire. It has only recently become a universal belief that excessive accumulation is the true behavior of human nature primarily through media and mass production and consumption. This belief has further been reinforced by capitalism, industrialism, and consumerism as well as the increasing complexity of money.

From the stand point of the theory of economizing, or this more direct explanation as the efficiency of or effectiveness of consumption, one may try the counter argument from the mainstream economics. In the case of the worn out saffron robe discussed above, instead of using the limited amount of time to make maximum use of the robe, the time should be used to create more value added products. The additional value of time can be used to produce a new saffron robe or a thick cloth to lie on or a new cushion to sit on. Or the alternative is, if teaching other fellow human beings to be relieved from pain as a way for better utilization of time.

This issue is related to value judgments especially those resulting from various activities of time-use. The underlying assumption is the standardization of the value of time. Often mainstream economics money as a unit of account is used as a standard value of time. However, this issue actually depends on two additional factors. One is the *sukha* of those who use the time to do things they like the best. The other is a preferential judgment of those who use the time, to choose what time to do what so that the time is used optimally. At the same time, the optimal use of resources should be taken into consideration.

The theory of satisfaction from work. This theory is developed from the teaching of Buddhadasa Indapañño. His purpose is for a human being to be able to find *sukha* in their daily life, as if that person is living in heaven. A person will, while still living, be free from *dukkha* and able to experience the state of *nibbana*. (Buddhadasa, 1998b: 49) The core issue of this theory is "working is practicing *Dhamma*"

The reason for introducing this theory is because the expression of the above phrase is very important. It can result in a rethinking to the point of revolution in mainstream economics. Economics has one implicit assumption: work is boring. It should be compensated by wage. On the other hand, amenity and leisure are pleasure generating activities. It's worth spending money to buy the pleasure of those activities. The origin of this thought is from the industrial revolutionary period in Europe, especially during the 18th and 19th centuries. Workers were being treated almost as slaves, and being used in the same manner as machines. Such work is exhausting and boring. Amenity and leisure could be the opposite situation.

Currently, working conditions are not as bad as in the past. Nevertheless, Buddhadasa wanted to stress that no matter what the actual working conditions, the attitude towards work was more important. At least, it should not be less important than the actual working conditions. One should begin from the right attitude that working is a natural way to perform the duty of a human being, and recognizing that human beings are a part of the production process. On that basis, work is not to be viewed as exhausting and boring or as punishment, but rather as a normal duty that a human being must perform. Working is the same as practicing *dhamma*. Given this attitude, work would not be exhausting or boring. On the other hand, a person should be satisfied because he/she has already performed the duty required because it is part of a human nature and practicing *dhamma* at the same time.

Please observe that the word "satisfaction" is used instead of "pleasure". Such emphasis is designed to distinguish pleasure that means utility or hedonism from satisfaction that implies willingness to do things. If one wants to move further on this concept of willingness to do things in a Buddhist way, the work should also provide *sukha*.

The reality of some bad working conditions must also be accepted. Different work has different working conditions. Some work is more creative than others. Some may generate more enjoyment and satisfaction than others. In fact, the joy from work can equal to the joy from amenity and leisure or can even be more. Some work can be stressful. Some can be very risky. Work that requires high standards and must be delivered in a short period of time can be very stressful as well. Some work must be accomplished through direct and indirect coercion. Some work is very dirty and boring. No matter how much actual working conditions are different, a good attitude towards work can be a major supportive factor.

On the other hand, the neither leisure nor amenity necessarily leads to pleasure. It is true that leisure and amenity are anticipated to yield pleasure. It provides incentive for a person to pay and/or spend the time to experience it. However if the expected pleasure leads to personal ruin such as gambling, consuming addictive or toxic substances such as alcohol or narcotics, or involvement in improper sexual relationships, all of these so called amenities or leisure activities can end up in *dukkha* or in pain instead of pleasure.

In conclusion, mainstream economics claims that work only involves non-pleasurable activity while leisure is only pleasurable activity without any qualification as to the nature of the work or the leisure activity. In fact, work and leisure can end in opposite situations from what has been anticipated. In Buddhist Economics, there are two pillars guaranteeing *sukha* from work. One is the work attitude. If working is considered as performing a natural duty, it will reduce the undesirable aspects of the real working conditions. The second one is efficiency of consumption. If consumption is at the level of sufficiency, the needs for actual consumption will not be excessive. Life along the middle path does not actually require a lot of consumption. Under this condition, a person can choose to do a more creative work. This type of work can also provide satisfaction as well as creativity. However, if the task is difficult or boring, it should be considered as practicing *dhamma*.

Under these two conditions, a person can find satisfaction or *sukha* (from practicing *dhamma* at the level of *jhanasukha* or *nibbanasukha*) from work as well. If the attitude towards work changes this way, the

meaning of "work" in economics will change significantly. Starting from mainstream economics, to be fair to the employer and the employee, the wage should be equal to the employee's productivity. From the point of view of an employee, if he/she considers that the wage does not compensate the effort even though it is already paid at the level of his/her productivity, he/she may choose to not do that work. In this case, the anticipated production does not take place and the result is no product is produced. However, if the worker considers that such work performance is also the practice of *dhamma*, the production process will continue. Let us consider some examples: a farmer who considers farming as his duty to grow food to serve other human beings; workers in a slaughter house or in any industry with very poor working condition also consider as providing his services to other fellow human beings. Definitely, farmers will be more satisfied with their works than worker in a slaughter house or in any industry with severe working condition. Nevertheless, all are willing to work because they consider doing their job as practicing their *dhamma*. They do not even require that the wage must be equal to their own productivities. The first thing that will be the result form such practice is that there will be more surplus for the society, especially for those who are unable to work due to sickness or disability and the elderly people and very young children. At the same time, the works still continues as needed. Under this situation there will be few social problems. The theory of positive supply of labor in the mainstream economics may no longer hold.

In reality those who live their lives according to the principle of Buddhist Economics have much more opportunity to choose their pattern of living. They are not bound by cravings for more unnecessary consumption. They can work without much focus on monetary return. As a result, they can choose more creative work and be *sukha* at the same time.

Conclusion

All of the examples of theories in Buddhist Economics discussed above point to one direction and that is peace and tranquility for a human society that can actually be achieved. At the same time, the subject of economics does not necessarily need to be considered as *avijja* or ignorance, or a vulgar subject. It can be useful for human beings by actually creating wellness for them.

The fundamental differences between mainstream economics and Buddhist Economics are instead of the emphasis on self-interest; it stresses non-self. Instead of emphasizing in intelligence, Buddhist Economics stresses *pañña*, which can be generated through *sikkhattaya.* Lastly but most importantly its goal is *sukha* from *nibbana* instead of stopping short at *kamasukha* which is in fact *dukkha*. All of the points outlined above are ignored in the mainstream economics. If such ignorance is eliminated from mainstream economics, as most persons eventually reach a higher level of understanding, economics will be the most useful subject for humankind.

If such a level of understanding is achieved, there is no need for any distinction between mainstream economics and Buddhist Economics. One subject will be sufficient: economics for humankind. It is evident that Buddhist Economics has nothing to do with anything related to the word "religion" in English. It is a way to study and understand a human being in its own nature. On the other hand, mainstream economics has a status closer to the concept of religion. The subject is based on faith in a set of beliefs without any concrete foundation, while Buddhist Economics stresses an understanding of everything in its own nature.

The main cause of ignorance in mainstream economics is the lack of understanding of a human being in its own nature. The reason is because most forms of education developed in Western civilization including mainstream economics do not pay adequate attention to the interaction of human beings and their environment. They do not pay adequate attention to various inner components of a human being, resulting in an inadequate understanding of its true nature.

Chapter 15
Application of Buddhist Economics to Other Economic Subjects

Economics that Relates to a Human Being and Other Economics Subjects

In chapters 12, 13, 14, the subjects related to development economics, human resource economics and the economics of natural resources and the environment have been discussed in comparison with their application of the theories developed from Buddhist Economics. Buddhist Economics can be readily applied to these subjects without any difficulty. It is because these subjects are closely related to human lives and their livings, which is the emphasis in *Buddha Dhamma* as well. There are also other economic subjects, such as agricultural economics, industrial economics, and the economics of transportation. These subjects specialize on production of specific goods or services. These specific goods and services have their own production techniques and specialized markets for their products. The subjects deal mostly with specific techniques related to those goods and service. They have common economic issues such as how to minimize their costs of production, how to produce things most efficiently, how to reduce uncertainty in the production cycle as well as market fluctuation, or how to produce in a way that will be consistent with the national development pattern.

All of the subjects mentioned above tend to be specialized ones. Buddhist Economics is at its early stage of development. It requires a more solid foundation before contemplating these specialized areas in order to avoid unnecessary criticism in the finer details that could result in unnecessarily shaking the foundation of Buddhist Economics. The core issues that are common to all economic subjects are maximization of productivity, minimization of cost, high competitive ability, ability to withstand change from rapid market fluctuation, consistency with national development patterns, appropriately contributing to national development, and generating employment that matches existing workers' capability. All of these technical issues lead to one common conclusion: production efficiency. All of these issues are not much different than the stand taken by Buddhist Economics. Hence, it is not an urgent case that, it should be considered from the point of view of Buddhist Economics.

Apart from economic subjects that deal with production of specialized goods and services, there is also the other set of economic subjects that deal with finance, money and banking, and international trade. These subjects relate to national economic policies that incorporate national finance concerning government expenditures and taxation. The issues relate to their impact on the whole economic system from the change in the quantity of money, interest rate, exchange rate and international trade, and the flow of international funds that has an impact on the national economy and national employment. All of these issues are technical ones related to national economic policy management. The development of Buddhist Economics at this level is not adequate to deal with these subjects without the risk of making a mistake. Neither of these subjects deals with the core of human nature the way the previous three subjects discussed in chapters 12, 13 and 14 respectively.

In order to demonstrate the broad application of Buddhist Economics to the rest of economics, apart from the understanding of the core nature of a human being, the aggregate relationship will be shown in order to assure the ability to apply Buddhist Economics to all economic activities. The only caution is that all suggestions proposed in this chapter should be treated as preliminary. There must be further research and development in order to seriously gain the required new knowledge before being able to explicitly explain the applications in the manner of to the previous three subjects.

General Application of Principles in *Buddha Dhamma* to Other Economic Subjects

Understanding that the following proposals serve mainly as preliminary trial, one may begin by introducing the major concepts in *Buddha Dhamma* that will apply as follows:

1. The emphasis on self-reliance
2. The emphasis on living cautiously through full awareness
3. Ahimsa or refraining from creating conditions for violence
4. Right livelihood, patience and diligence
5. Not burdening one-self as well or others
6. Honesty and *hiri-ottappa* (moral shame and moral dread or fear)

One can apply some of these principles in various economic activities such as The Sufficiency Economy Philosophy of King Bhumibol Adulyadej of Thailand. Most of his teachings have their roots in *Buddha Dhamma* that includes all of the principles above. The King's thoughts can be applied to a country's development direction as already explained in chapter 13 on Development Economics.

Self-Reliance

Self reliance, in its deep meaning, is the condition of self-development to the point of being able to wisely contemplate and being able to see the impermanence in everything (*yoniso manasikara*) (Phra Dhammapitaka, 1985: 680). The other related meaning is being patient through one's own training. No one else can do it for that person (Phra Dhammapitaka, 1985: 599). When applying this principle to economics the emphasis is on production for one's own consumption. It is an economic process that can be proven as the most efficient one.

In the general case, Adam Smith suggested that a division of labor will lead to increased productivity and an increase in the wealth of the nation, if each one produces what one is specialized at and then exchanging all existing products. Eventually, everyone will receive what they want more than what they would have if they try to produce everything to satisfy their own wants. This explanation conceals two important assumptions. First, that the transaction cost is substantially lower or insignificant and second, the two who exchange their products have the same level of bargaining power or their bargaining powers are not much different. Apart from that, another implicit assumption is that there is only one way to increase human pleasure and that is through having more goods and/or services for more consumption. Value from learning new things or learning and knowing new production processes or from having new knowledge or new experiences is not comparable to more consumption. Further more there is yet another assumption that doing the same thing over and over again in the process of specialization does not result in any boredom, but increasing pleasure from doing so; or else the return from such work whether it is money or product, will yield more pleasure than the displeasure from repeatedly doing the same work.

If all of these implicit assumptions are not true then the desirable resulting from division of labor and specialization cannot be accurately anticipated. For example, if the transaction cost is too high, it is not worth it for each to specialize in producing only one thing. In the case of exchange, if two persons have different bargaining power, the person who has the weaker bargaining power will end up being a loser all the time. Hence, it is not worth it to produce only a single product for exchange. On the other hand, if one is able to produce many things at the same time, a person will have much wider knowledge. That person can apply such knowledge across the spectrum of production processes. He/she will gain increasing experience. It is a form of investment that can both generate knowledge and production skills at an increasing rate. If all such knowledge can be cross-fertilized, the boredom from doing the same thing repeatedly so many times everyday will be reduced drastically.

The situation discussed above is actually what a farmer with a small farm actually faces in the daily life. It has resulted in these farmers having very low economic bargaining power. To solve this problem, those farmers must produce everything needed for their own and their families' consumption. This production process has proven to be the most efficient one. It is because the weaker ones do not have to suffer from their weak bargaining power. They are also safe from their potential loss from the high transaction costs. It has also been scientifically proven that such a pattern of farming is better in the long run for the ecology than growing a single cash crop. Most importantly, farmers have a much better opportunity to learn more. Hence, it will increase their analytical ability and they will be able to better solve their own problems. Eventually, their bargaining power is also being enhanced since they have their own basic necessities. The insufficiency of some of these necessities is the basic cause for losing their bargaining power.

All of these ideas have actually been implemented under the King's suggestion of what he has called "the new farming theory". This concept of self-reliance in Buddhist Economics can be very well applied to agricultural economics. The fact that cash-cropping has always been the standard recommendation in agricultural economics is because it overlooks many of the important assumptions discussed above. It only emphasizes specialization as suggested by Adam Smith that results in debts for most farmers who have small farms.

Apart from what has already been discussed above, self-reliance can also lead to reducing the risk presented by uncontrolled external factors. It is so because self-reliance also implies the ability to have full control of all factors of production as well as the production technology. In this case, risk from uncontrolled external factors can be drastically reduced. At the same time, self-reliance will enhance economic security for those who practice it regularly.

It should also be observed that small producers of any kind can face this problem of unequal bargaining power. However, producers of manufactured products or services have fewer problems than farmers. Since land is the main factor of production for a farmer, the farmer cannot leave or change his occupation as easily as small entrepreneurs whose major factor of production is capital. It is easier to change the form of capital than land. Unfortunately, other small entrepreneurs are at the same disadvantage of not being able to produce everything for their own or their families' consumption, which is fundamental for self-reliance. Therefore, self-reliance is mostly confined to farmers that have small pieces of land. Nevertheless, they are the majority of the world population even in the 21th century. This claim will still be true for a long time in the future.

Carefulness

Carefulness or *appamada* is the *Buddha Dhamma* contributing to achieving the set goal. It consists of heedfulness, diligence, earnestness, carefulness, awareness, doing things that should be done quickly, improving things that should be improved and always doing good things. (Phra Dhammapitaka, 1985: 596) Its application to economics is carefulness or mindfulness. Most economics problems are from risk. In turn, they are caused by carelessness

Economists usually explain that high risk is accompanied by high return; otherwise there will not be enough incentive to take the risk. At the same time high risk also implies high probability of loss. High risk will result in economic instability. Economists normally divide persons into two groups, risk lovers and risk averters. They explain that it is the natural behavior of each individual to choose what camp that the person wants to belong to. There ought to be only one form of behavior in Buddhist Economics namely, behavior without greed or carelessness. Greed is the major cause for the carelessness that has the specific consequence in this regard, risk. Risk can result in national economic instability, the situation that Thailand experienced in 1997. (It is also applicable to the 2008 crisis as greed led to the investment in sub-prime assets in the U.S.) One of the causes of the crisis during the period prior to that crisis was that Thai investors became risk lovers. They were controlled by greed and driven to make a lot of money within a short period of time. The factor that stimulated the greed at that time was the low rate of interest rates on foreign loans with the anticipation for much higher monetary returns for investors in Thailand. The end result was a bubble economy as the monetary sector was expanding without any support from the real economic sector. At the same time, those who borrowed money from abroad received assurances from the Thai government in the system of pegging the exchange rate of baht to the U.S. dollar. As a result, the investors therefore believed that they had no risk from the possible devaluation of the baht. The result of national greed and carelessness caused severe consequences for everyone in Thailand with only a few exceptions. It provided a hard lesson that will be remembered for a long time.

From the view point of Buddhist Economics, there is one and only one way to respond and that is with non-greed and carefulness. One way to do that is through risk diversification. The ideas behind the King's Sufficiency Economy are reasonableness and moderation or sufficiency. Without greed there is no need to take risk. He used the word "big eye-ball" to represent greed (The King's Speech, 1996). The new farming theory is the way to diversify risk by growing everything for consumption within each family unit.

This idea after having proven itself in the Thai economic crisis of 1997 can be used to control all economic activities. It can be applied to production or distribution of manufactured goods and services including money and banking businesses as well as international trade. The key issue here is appropriate risk management. Or to be more on the safe side, it should be downside risk management (Apichai, 1999: 11-12). Eventually non-greed and carefulness will contribute to reasonable economic management, the way it has been explained in the King's Sufficiency Economy Philosophy. Under a policy of regular practice, it may not help any one to "get rich quick"; nevertheless, those who practice Sufficiency Economy regularly will not end up in pain or suffering because they will have a sufficient amount to live on. When applying *Buddha Dhamma* to explain such phenomenon as "getting rich quick" it is actually a rush to pain or suffering. Such behavior is in fact unreasonable or without *paññā* at all.

The *Buddha Dhamma* of carefulness is most important in its implication on the practice of *dhamma* taught by Buddha. It can very well apply to all economic subjects.

Ahimsa

Ahimsa is a *dhamma* contributing to loving kindness or being away from violence or causing burden on oneself or others (Phra Dhammapitaka, 1985: 319). It is the practice of patience and tolerance against any stimulation that can cause anger and delusion. All of these stimuli are enemies to the ability to think or to be mindful. Without awareness or mindfulness, *paññā* cannot emerge. An economic issue related to *ahimsa* is the seeking of economic interest focused on violence such as having economic benefits from arms industries or economic policy based on military security. It can be clearly seen that such activities may result in high returns to the business owners but it will be a catastrophic end to many others. Economic policy should not focus on military security and conflict resolution through war. There are many examples in history that can demonstrate valuable lessons. The United States of America sent troops to Vietnam in the early 1960's and was defeated in 1975. The end result was a prolonged national economic problem caused by both trade and budget deficits in the U.S. lasting into the 1980's. The former Soviet Union collapsed in part because of her involvement in the protracted war in Afghanistan.

The example of changing from a war-based economy to a peace-based economy was King Asoka the Great of India, who transformed from a warrior and an invader to the supporter of Buddhism who conscientiously looked after his people's welfare. This example inspired Japan to adopt Buddhism as one of her major religions. During that time there was a Buddhist monk and a scholar who proposed that Japan should not trade with countries that produced and sold arms. Although that proposal was a minority view, it reflected a tradition practiced in Japan in the past. Although, Japan had been invaded by Korea at that time, Emperor Kammu gave the order in 792 to dissolve the national army that had a long history going back many hundreds of years. The order was based on *Buddha Dhamma*. In the beginning of the 9th century, the death penalty was abandon and it remained the law for more than 350 years (Inoue, 1999: 23). More over, after World War II, it was declared in the constitution that Japan must not have troops for invasion only for self-defense. That declaration resulted in a very low military cost for Japan after the war. The country was able to use more resources for the national economic development. The end result was the rapid rate of growth of Japan. The economy only began to slow down after the 1970's.

The above examples, apart from reflecting the *Buddha Dhamma* on loving kindness, demonstrate that economic activities not related to the violence of war are the activities where resources are used most efficiently. Admonitions like this appear in all major religions. Unfortunately mainstream economics when faced with solving some economic problems, especially short term unemployment, tends to accept a war-time economy as the means to solve the problem. The different approach in this case is due to the fact that *Buddha Dhamma* focuses on actual practice. It can explain why there have been no religious wars in which Buddhists were the main instigators.

All of the examples discussed above involve economic activities related to open violence. There is another form of violence rooted in economics. It is competition. Although mainstream economics does not encourage cut-throat competition, as it will lead to economic bankruptcy, the emphasis on "healthy" competition that has been argued to enhance efficiency together with the focus on self-interest can result in greed. Such encouragement can result in its own logical contradiction.

Without greed and short term personal gain or self-interest, economic activities can yield more in a situation of cooperation. Production efficiency can also be improved at the same time. For example, the management of common property discussed in chapter 14, if such cooperation takes place without the sense of self-interest it can be fruitful. The actual economic activities undertaken by religious or voluntary organizations can be considered as activities that are in line with Buddhist Economics based on *ahimsa*. A clear example in this case is the *Sanvodhaya Saramadana* movement of Ariyaratane discussed in chapter one. The focus there is full engagement instead of full employment as discussed in chapter 13 (Ariyaratane, 1999). A similar idea can be applied to communal business or communal enterprise, currently being widely experimented with in rural Thailand. Such activity is also based on cooperation instead of competition in undertaking economic activities.

All examples discussed above lead to the conclusion that the application of *ahimsa* to economic activity will result in cooperation instead of competition. Cooperation is equally possible for any business undertaking and can lead to the resources being used most efficiently. The only thing that should be eliminated is greed derived from a strong sense of self-interest. Greed is actually the primary source of violence.

Right Livelihood

The word right livelihood in *dhammic* language does not only mean the use of labor for production and being paid a just wage or compensation in return. It also means behaving or performing one's duty in a way that ought to be reciprocated by receiving adequate factors to support life. In a way, measuring of labor value through receiving products to satisfy a person's desire is not always right livelihood as such desire may be driven by craving. Right livelihood should be considered based on the end result of the effort to earn living, whether such effort results in a useful way of living and is supportive to lives and society for mutual coexisting in a peaceful way (Phra Dhammapitaka, 1985: 779)

This *Buddha Dhamma* has been frequently referred to in the writings of Buddhist Economics by Western authors. Right livelihood is one among the Noble Eightfold Path. It is part of *adhisilasikkha* or training in higher morality which is one of the *sikkhattaya*. As right livelihood concerns earning a living through work, it can be easily understood as an economic activity as discussed in the work of Schumacher (1973).

The emphasis on this issue or any other issue in *Buddha Dhamma* is intention. In the case of right livelihood it is an action resulting from good intention, the same as Kant's philosophy. If one begins from good intention resulting from good thinking, the end result can be anticipated to be a good one as the consequence of the law of *kamma*. Such a result will be good for lives and society and a peaceful coexistence of humankind. If economic activities are conducted in this manner, it will support the mental development of humankind. If any entrepreneur conducts his/her business this way, such person will in the long run avoid doing anything that will be harmful to human lives. Examples of occupations or economic activities that should not be encouraged are production of arms, production of chemical products for pesticides or insecticides. Such chemicals, apart from killing insects, will also be harmful to the environment and the ecological system. It is also harmful to human beings later on. Apart from destroying life, the degradation of the value of humans should also be avoided. Things like narcotic, toxic substances that cause dizziness, hallucinations or resulting in lack of consciousness or impaired reasoning, delusion resulting from inadequate mindfulness, increased irritability and lack of full awareness, should not be produced under the moral code of right livelihood.

Apart from relating to production, right livelihood also implies an appropriate form of consumption. (Phra Dhammapitaka, 1985: 781)

From a *dhammic* view point, a person who does not produce any economic value, if that person consumes the least amount of the world resources as well as contributes to improving the existing environment such a person is still much better than the one who produces things that are harmful to lives and the society as well as consuming resources luxuriously.

Right livelihood should also take into consideration or pay more attention to the ones who consume the least. Production alone does not warrant the good support of lives and society. The fact that economics is

only interested in the increasing quantity in term of figures and materials for the sake of being scientific, it should admit its limitation as well. To solve human problems while human beings are beyond material science, the admitting of such limitation will be good for the more complete and better utilization of economics and the accompanying economic thoughts.

Apart from discussing the concepts of to produce or not to produce, to consume or not consume within the context of the right livelihood, consideration must also be paid to the impacts on well-being of individuals and the society as a whole. The content in economics must be improved in order to accommodate these concepts. The practice of right livelihood can be considered also as the practice of *dhamma* which means performing necessary duties part of living. Earning a living should not be the cause of *dukkha*, conflict or stress. It should be part of performing a normal duty as being a human being. Everyone should perform one's task without a feeling of *dukkha*, as already explained in chapters 11 and 13.

At the same time, to avoid a stressful working condition, the idea of mass production and mass consumption must also be avoided (Inoue, 1999: 24). It will be very difficult to organize mass production that does not include a system of conveyor belts. This system will down grade the quality of human beings to be merely being parts of the machines while they still cannot function efficiently by themselves. In this system, human beings must perform boring, repetitious work that will become stressful. In fact, mass production for mass consumption is the way to stimulate the use of throughput from the lower level of entropy to the higher ones. Such a process implies the reduction of the life span of all living species including human beings. At the same time, it also creates various kinds of undesirable pollution harmful to all life including human. Such activities are actually against human creativity.

Both Sismondi and Ruskin would agree that these activities are the ones that will be destructive for human beings. They pre-empt the creativity of human beings. They are inconsistent with the principle of right livelihood in *Buddha Dhamma*. Such activities should be reevaluated especially in industrial economics.

Not Burdening One's Self or Others

Not burdening one's self or others is a *Buddha Dhamma* that will lead to living along the middle path aiming for peace and tranquility of individuals and society (Phra Dhammapitaka, 1985: 282-283). A person should refrain from any action or thought that can cause a burden to others through the practice of *brahmavihara* (four noble sentiments), that is loving-kindness, compassion, altruistic joy and equanimity or neutrality.

From the point of view of economics that focuses on self-interest, the goal that an economic agent wants to achieve is how to maximize pleasure, how to maximize output with minimum cost and how to maximize profit etc. Such emphasis on the points of maximization and minimization is considered the most efficient way in achieving any things in economics. In mathematics, it implies that the slope of the curve at that particular point is equal to zero. Which ever direction one moves from that point, the result can only be less or more.

If there is competition, in the end there must be a winner, which implies an accompanying loser. The result will be a zero-sum game. If one party wins, the other must lose, as the only solution is defined at the point of the extreme. Most of the time, economists will set the goal in this fashion. In reality, given the limitation of management technology, the social return will not be at the point of extreme. This situation assumes that every party has the opportunity to end up the winner. Another possibility is that a new innovation is introduced so that all can move upward together. In this case new innovation is an addition factor that enters into the consideration.

If the focus is shifted from self-interest to not burdening one's self or others, we open the door to the possibility of sharing benefits and having a win-win situation. When taking all other things into consideration, such as all of the limitations in all activities undertaken by human beings like the increasing pressure on human beings, other living things and environment, the points where everyone wins can be seen not as necessarily be a less efficient point but rather the point of optimization.

From the standpoint of not burdening one's self or others in *Buddha Dhamma*, the point should be optimization. Everyone will share some gain from such a solution and create a win-win situation. It is

different from the mainstream framework that focuses only on the extreme point, and leads to a zero-sum game.

The clear difference between the two standpoints, especially in the contemporary world that explains the relative scarcity of resources, while the absolute limitation of resources is regulated by the law of entropy, is that the relative camp will explain further that the world is not a closed but an open system. Exergy (solar energy that daily comes to the earth from a source external to our closed system) will change from absolute imitation to relative limitation. To disavow carelessness, there should be no economic subject that takes an extreme point as a solution. At the extreme point, no one will win absolute victory. The winner only wins initially. If it comes to the point of the collapse of the ecological system, the living environment without the strong support of a healthy ecological system will no longer be conducive to peaceful living.

The principle of not burdening one's self or others will lead to the point of optimality. It is a win-win situation. It is the paradigm in Buddhist Economics that completely rejects the concept of self-interest. It can be said that such a position will actually benefit human beings and all other living things. It is the position that all economic subjects ought to adopt and apply. In fact, even using the methods and concepts of mainstream economics, if all other related factors are also taken into account, the extreme solution will not materialize. Therefore, the concept of optimization already exists in mainstream economics. Without the focus on self-interest, the win-win situation will eventually be the focal point of economics. Economics can be used to serve humankind instead of being the "dismal" science in the true sense. It will attain the status of *vijja* or *paññna* instead of *avijja* or ignorance.

Refraining from Kilesa and Greed

Kilesa in general can be explained as the consequence of "*avijja*" or ignorance (Phra Dhammapitaka, 1985: 114) that shares the same meaning as delusion. (Phra Dhammapitaka, 1985: 76) If a human being is living in ignorance resulting from having delusions, that person's life will be led by basic instinct. Such instinct is very useful in that it creates a fear of death, a fear of the instability in life. Such fear results in struggling for survival by any means. On the other hand, if a human being lives only by basic instinct, that person will not be much different from other animals. The mind cannot be developed to the point that *dukkha* can be eliminated temporarily or permanently. Living in ignorance or delusion together with the basic instinct for survival, the consequence will be an attempt to create security for life through material accumulation driven by greed.

A result of greed apart from leading to risking behavior that can result in economic insecurity explained before is that greed will also be the cause of economic damage to that person as well as the society of which that person is a member. There are many examples that substantiate the above statement. Here are two good examples pointed out by His Majesty the King in 1997. (The King's Speech, 2540).

> "I must tell you one story. I went to Chonburi Province one time. (1) It was many years ago. One business man said he wanted to build a factory to produce canned pineapple. He invested many million baht. I cannot remember the exact figure. I told him that I did not agree with him to invest that much money. From my personal experience, I had only a small factory in the North that cost three hundred thousand baht in order to can the produce of the villagers. It worked well. It was a small factory. I told him that investing many million baht was quite risky. He said that it must be done that way. Finally, he did so. After a while the pineapples from Banbueng District in Chonburi Province were not enough. He had to order from Pranburi (from the other end of the Gulf of Thailand). The pineapples from Pranburi had to be transported from the long distance. Some of them were rotten. The costs were very high. Finally the factory went out of business. It indicates that any project developed must be of suitable scale that it can be manageable as well as suitable for the environment.
>
> Yet there is another story. In Lampoon there was a factory to freeze the farmers' produce. I visited him. He complained that the baby corn bought to be frozen were not of good quality. Hence, he could only offer a low price. At that time, I did not know what would happen afterward. I told him that you should give some monetary support to the corn farmers so that they would produce a good quality of corn. The factory would prosper also. He said to me that he could not do that because the quality was not good. I thought this is the Catch 22 problem.

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(1) In 1974 (with reference to his voice recorded)

> If the corn price was not good or the farmers did not receive any support, the farmers would have no way to improve the quality. The baby corn would not come out in a perfect shape. They would be selected out by the machine because it could deal with the corn with perfect shape only. I thought to myself without any word. I do not curse him but feel that this factor will not being able to do business in the long run. In the end it went out of business. Building and all others are still left idle. (2)

In both cases the King's speech demonstrates well the undesirable results of greed in conducting economic activities. Due to the greed of both businessmen, in the end both faced unavoidable problems. If the two were not so greedy, they as well all parties concerned could have reached win-win situations.

In the real world there are many cases of greed. For example transnational corporations usually use very large amounts of their resources to gain political influence for their own interest. They normally try to maximize their gain through monopoly. In the process, it has caused negative externalities to environment. They normally use excessive natural resources in order to maximize profit without much other consideration. They also look for opportunities to use cheap labor from the host countries that are looking for rapid material gain as well. The host countries are prepared to exchange the condition of rapid deterioration of their resources and environment for such material gain. Such greed will destroy the resources of the host countries. Soon after, it will also destroy the businesses of these transnational corporations, because they have exploited all of the resources available to them.

The examples of activities discussed above have been done under the theme of libertarianism. It has been propagated as the way to rapidly reduce poverty. Such an explanation can be convincing as an abstraction. Unfortunately, in reality such transnational corporations became more politically powerful all the time. Apart from controlling the national governments, they can also exert their influences over powerful multilateral organizations such as the World Trade Organization (WTO), International Monetary Fund (IMF), the World Bank and Asian Development Bank (ADB). Libertarianism tries to sanctify greed while focusing on individual rights that must be protected, especially property rights. Mainstream economics helps propagate this idea by explaining that the increase in productivity of these host nations is the product of division of labor leading to the specialization supported by free trade. One major assumption that has been deliberately overlooked is the inequality of bargaining power between the different countries against the transnational corporations.

For a small country without much bargaining power in either trade or politics, the best way to protect its own economy from being exploited so severely is self-immunity for its economy according the principle of the Sufficiency Economy Philosophy that stresses not too much greed. Most importantly all parties concerned must understand the concepts of the Sufficiency Economy Philosophy clearly. These concepts are based on *Buddha Dhamma* of avoiding *kilesa*. A person must live the life in a moderate way without greed and carelessness. Applying these concepts in all economic subjects should be a good way out from the mistakes committed in the past. In the countries that have low politico-economic bargaining power, the above concept should be seriously contemplated. This issue needs much more research work to make it more concrete for actual application.

Honesty, Moral Shame and Moral Fear

Honesty, moral shame and moral fear are the part of *Buddha Dhamma* that focuses on good thoughts and good intentions towards others (Phra Dhammapitaka, 1985: 35). Mainstream economics does not pay any attention to these concepts because its emphasis is self-interest. Honesty is not really an issue in mainstream economics where each one will be protected by a contract and their sense of self-interest. One reality recently discussed in mainstream economics is the fact that the transaction cost in the market can be reduced by "trust". It has currently become a topical issue for researches as the factor that can actually reduce the cost of market management. It is one of the most important elements of social capital.

One can imagine even in a market that has many rules and regulations, if everyone tried to take advantage of each other, the cost for enforcement of the rules and regulations would be very high. That

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(2) In 1972 (with reference to the original manuscript that the King wrote from this recording)

cost would be passed on to both buyers and sellers. The factor that contributes to trust is honesty resulting from good thoughts and good intentions. The motivation for doing so is moral shame and moral fear. In the recent past, it is claimed that in the diamond wholesale market in any major city around the world, all of the diamond merchants are Jews. The main reason is that as a group these merchants are trusted. Diamonds are the most valuable jewel in the world and it is not very difficult to cheat by selling fake ones. Without personal trust, it would be difficult to continue this business.

The main reason for being honest or having moral shame and moral fear is because good intentions only result in good action. Continual good thoughts will result in a purified mind. The purified mind will result in a calm mind that makes concentration easy. This type of mind results in clear mind which is *paññа*. *Paññа* will finally lead to the most important goal in life, the cessation of *dukkha*. Promotion of the application of honesty to economics may risk the accusation of being an idealist. However, if practiced regularly, good economic relationships and good human relationships will be the same thing.

A major internal conflict within mainstream economics is that its main focus is for everyone to maximize pleasure based on having more goods or services. In fact, even within the Western framework discussed in chapter 12, pleasure can also be gained from "being" or "doing" or "relating with". Unfortunately, mainstream economics only focuses on "having" and overlooks pleasure from having good relationship with others. Actually, the principle of honesty and moral shame and moral fear is also the root for human satisfaction.

As mainstream economics only focuses on "having" and self-interest, it actually stimulates greed. Such a spiral of greed will never lead to maximum welfare, because there is no end to it. To solve this problem of mainstream economics, additional factors must also be considered as the means for pleasurable activities such as being in a good environment, doing creative work, and relating with others. The consideration of the mathematical relationship in the utility function will be much more complex. Without the aid of tractable mathematics, traditional economists will feel insecure of their subject for fear that it will no longer be positivistic, and hence it will not be scientific. Such thoughts results in negating any attempts to improve the subject to bring it closer to reality. Such negation makes the subject move even farther away from the reality that can result in internal inconsistency within its analytical method. The goal of economics of achieving a desirable human society actually contradicts its approach of hedonism.

Reality can be better reflected with the introduction of honesty, moral shame and moral fear into the analytical framework of Buddhist Economics (especially when compared to mainstream economics) than without it. In fact, one can argue that mainstream economics is more idealistic than Buddhist Economics in that it anticipates a realistic conclusion from inadequate factors in its analytical method.

Conclusion from the Attempts to Apply Buddhist Economics to Other Economic Subjects

The applications of the seven principles in *Buddha Dhamma* discussed above are merely intended to show how they can be applied to the rest of the economic subjects, over and above the three that are closely related to human beings discussed in chapters 12, 13 and 14. What has been discussed above is only a preliminary attempt and requires much more research in order to apply it to other economic subjects. The primary purpose of this part of the study is to show by examples that there are still a lot of possibilities to reduce weaknesses of mainstream economics developed from Western civilization that has been widely taught and researched in most of the higher education institutions in this world. The main purpose is to reduce internal contradiction or internal inconsistency within the analytical framework of the subject. Its major weakness is an overly simplistic view of the nature of a human being. Instead of economics being used to enhance human dignity, the end result has been to down grade humanity. Physically, it induces economic activities in such a way that human species could finally be destroyed. At the same time, each individual will not be able to reach the real *sukha* as originally anticipated. Such results put the economics subject into the status of *avijja* or ignorance instead of creating or generating *paññа* for humankind.

This writing attempts to open up more dialogue, research and searching for more truth in order to improve the content of mainstream economics in such a way that weaknesses can be reduced, the subject can be more applicable to the real situation and be able to serve human beings as a much more useful

knowledge. It has also been designed to serve as a warning of the danger of adopting knowledge that has not been carefully scrutinized for its effective use. There are still many more good ideas that have originated within the Thai society, Eastern civilization and Western civilization that can be integrated into new knowledge that can make it more useful to humankind on this earth both now and in the future.

Chapter 16
Epilogue

The Status of Buddhist Economics

If one does a survey of the literature, scholars and academics who have contributed to the development of Buddhist economics, it would be found that the name of this subject was first mentioned in Chapter 4 of *Small is Beautiful* which first appeared in 1973. One year before that book, there was also a widely read book called *The Limits to Growth* presented to the Club of Rome in 1972. This book questioned mainstream economics that focuses on economic development as synonymous with economic expansion. Even at that time economic expansion was questionable as a vehicle to solve the problems of poverty and environmental degradation. The reality now appears to be the opposite.

In his book Small is Beautiful, Schumacher (1915-1977) voiced a belief that solving the problem of poverty in the third world must be done through the use of appropriate technology together with moderate economic activities. The main purpose is for local people to be able to control both production and the management of technologies on their own. At the same time, people can live their lives with *Buddha Dhamma* particularly following one of the Eight Noble Path, known as the right livelihood.

The cartel of the Organization of Petroleum Export Country (OPEC) rapidly hiked the oil prices in 1973-1974, reiterated the problems of development through the use of fossil fuel. Such incidences resulted in popularizing the debates in *The Limits to Growth* and *Small Is Beautiful.* The result of the oil price hikes was an economic depression in most developed countries in the world. Soon, as the economies of most countries recovered from the first oil-price shock, OPEC sent the second wave of price hikes in 1979-1980. Economists who advocated for economic growth were severely affected to the point that they could not produce any new theory that was convincing enough.

Such incidences provided good opportunities for the development of economics of natural resources and the environment. This subject has been widely accepted since 1980. The main focus of this subject is the possibility for sustainable development.

During the time of the first OPEC's oil price shock, Thailand also gained from the better prices for her agricultural products. Thai rice fetched a higher price in the world market while the Thai farmers still did not use as much chemical fertilizer. The price of chemical fertilizer also increased rapidly as it is a petroleum based product. There was considerable concern in Thailand resulting from such a rapid increase in oil price since Thailand depended fully on imported oil energy. His Majesty the King's speech to the graduates from Kasetsart University on July 18, 1974, equated the meaning of national development to "having enough for living for everyone first before moving further". He gave a similar speech on his birthday eve on Wednesday 4 December 1974 that marked the introduction of the "Sufficiency Economy" philosophy. The concept was clearly defined in His speech on December 4, 1998 to mean "moderation, honesty and not too much greed and not to burden others". It showed the Thai people a way to live their economic lives according to the principles in *Buddha Dhamma.*

It should be observed also that the term Buddhist Economics first introduced by Schumacher was due to his inspiration from being assigned to work in Burma as an economic advisor. He was inspired by the happy way people were living in Burma to the point that he was uncertain whether he should give his advice for the Burmese to solve their economic problem or to learn from them. Schumacher himself was claimed by humanistic economists to be one of them. He was also influenced by Gandhian thought. It was clear that the understanding of Schumacher on *Buddha Dhamma* was limited. His courage to take such stand and the fact that his thought has been recognized world wide, has become a real challenge for Buddhists who studied economics from the West to take some position on this issue.

In Thailand in 1987 Praves Wasi, a medical doctor and a prominent Buddhist scholar, presented his ideas in Buddhist Agriculture, inspired by the alternative approach of Thai farmers in their farming methods such the forest agriculture of Vibul Khemchalerm and the integrated farming of Maha Yoo Soontornthai. These people had adopted *Buddha Dhamma* as their basis for living as well as incorporating it into their occupational activities. Both of them had previously been ordained as Buddhist monks. The most significant change took place when Snoh Unakul, a mainstream economist who held important economic positions in Thailand and was involved in the national economic planning from early on, spoke to a meeting of academics and Buddhist monks at the Temple of Borwornivesvihara on May 15, 1987. He declared that the Fifth National Economic and Social Planning (1982-1986) drafted by him was a Buddhist economic plan. Although its essence was drawn from *Buddha Dhamma*, its application was still distance. Nevertheless it should be considered as a major first step toward a paradigm shift at the level of national development.

Another prominent piece of work under the name of "*Buddhist Economics: A Middle Way for the Market Place*" was first published in 1984 by Phra Dhammapitaka. This work criticizes mainstream economics from the standpoint of *Buddha Dhamma*. This piece of work was also inspired by the work of Schumacher. After that, in 1984 Sulak Sivaraksa, a leading Thai scholar of common origin wrote the book called "*A Buddhist Vision for Renewing Society*". Apart from writing many volumes on *Buddha Dhamma*, he was invited to give lectures to various interested groups around the world relating to the topic of Buddhist economics. His works resulted in at least three other books. The first one was that of Ariyaratne (1999b) published under the name of *Schumacher Lectures on Buddhist Economics*. Glen Alexandrin (1996) wrote the text book called Basic Buddhist Economics based on Tibetan Buddhism, and Shinichi Inoue (1997) applied Mahayana Buddhism to his work called Putting Buddhism to Work.

None of these works dealt sufficiently or systematically with Western mainstream economic thought. Some of these works could cause confusion such as that of Glen Alexandrin, since it was written under the influence of mainstream economics. The rest including that of Phra Dhammapitaka (1994) are based on completely different thoughts. Unfortunately, they did not touch the evolution of thoughts of the mainstream economics at its core values. There was no attempt to construct Buddhist economic theories in comparison with those in mainstream economics. Neither was there any attempt at applying those theories to other economic subjects.

This book that the readers are about to complete resulted from attempts to reduce the said shortcomings as much as possible. It tries to more systematically analyze the ones that have been left out. It is a way to reinvent a study of economics that considers the nature of human beings in a manner that is as close as possible to his real nature as explained in *Buddha Dhamma*. The groundwork was very well prepared by Phra Dhammapitaka (1985). This work is not designed as an alternative to the mainstream economics, but is an attempt to explain the subject as it should be. There should be further more serious studies.

The Task Ahead

A work of this nature would meet with much greater resistance, if the author had not been exposed to mainstream economics as taught widely in the West, especially in the United States. It would also be much more difficult, if the author's idea was rooted in the paradigm or the framework of the mainstream thoughts through long evolution of Western civilization. Under that circumstance, there would be no chance for the author to understand Buddhism at this depth, without the great dependence on *paññā* from the book of *Buddha Dhamma* of Phra Dhammapitaka (P.A. Payutto) (1985). The work in this book is an effort to combine various dimensions of thoughts in the most systematic way, with the best effort of the author, and within the limited time frame necessitated by the research funding. It only serves as a preliminary walk way for those who wish to travel further along this road in the future. The later comers may help to clear up this untidy walk way to be cleaner and clearer. It is the author's hope that many who come much later on will be able to then run along this road with ease.

This work should be considered as an early continuation of the journey following Schumacher (1911-1977), Phra Dhammapitaka (P.A. Payutto) (1985) and Sulak Sivalaksa (1994) who started the journey. This type of work needs to be much more developed in the future especially the part that involves Buddhist Economic theories that require more thorough examination. Such effort is needed so that the new knowledge will be ready for application to further what the author has done, and progress toward completion of the work. More useful theories should be added in order to increase its power in explaining and predicting economic outcomes.

The part that is still missing in this work and should be considered as a new and important move forward is the application of Buddha Dhamma to various economics subjects especially monetary economics, public finance and international trade. That requires support from the followers in searching and studying later on. All of these subjects traditionally begin from a very narrow base but with a high level of being mechanistic theory. In order to improve these subjects, one must begin with a firm understanding of the ideas and analytical methods of these subjects to be able to improve them without having it backfire. Such work requires commitment and effort from those who are interested in this subject to further improve this walk way. Such followers may indeed find a new and better way to travel.

Personally, the author must admit that his knowledge of *Buddha Dhamma* is not sufficient especially the part from his own experiences through actual practice. Such experiences through practice are at the heart of learning in *Buddha Dhamma*. The author wishes to spend more time practicing *dhamma* to understand more than what he has already understood. Such new understanding may provide new ideas to the author to be able to improve upon the existing knowledge.

Finally, if this work has any potential value for mankind in convincing people to live along the middle path in order to find the full meaning in life and the real *sukha*, the author wishes to invite everyone to help clear this path further. The lessons learnt and the past experiences clearly indicate that the economic force has been a powerful source of change of human in terms of changing his life into something less dignified than it should be. It stimulates greed through technological progress. Other related factors are insufficient knowledge caused by the accumulation of ignorance within human beings and the closing of people's minds by mystifying concepts and various forms of ideas.

Today, the speed of information transfer provides the opportunity to search for new knowledge quickly but it also has its shortcomings. People tend to look for a quick fix that takes less time and gives them less opportunity to learn and understand their own lives thereby creating obstacles against the very well thought out idea. It is the time for those who have a thorough understanding of economics to dismantle all of the misguided ideas in mainstream economics. This action will provide the opportunity for global ignorance to be gradually reduced and being replaced by *paññā*, a strong force to fight the wrong belief propelled by economic forces that stimulate greed. Greed, sanctified by mainstream economics, has gained increasing control on human beings through delusion and ignorance. With this new way, human beings will have the opportunity to choose a road to peace which is also a road that leads to economic efficiency in the true sense, that results in increased well-being with much less utilization of resources. It is the optimization for everyone and a win-win situation for all humankind.

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