

The Green and Happiness Index

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Abstract

Due to the paradigm shift from economic-led growth to human development, Thailand has concerned on social and human development since the Eighth National Plan (1997-2001). GDP is also unable to reflect completely achievement or failure of development, particularly social and environmental development. In this regard, NESDB has developed the new indicator, “Green and Happiness Index—GHI” to evaluate performance of national development and happiness of all Thais. The GHI is primarily based on the Philosophy of Sufficiency Economy, Human-centred Development, and Vision of the Tenth Plan, “Green and Happiness Society”. Through the stakeholders’ participation process, it is composed of six components, namely Health, Warm and Loving Family, Empowerment of Community, Economic Strength and Equity, Good Quality Environment and Ecological System, as well as Democratic Society and Good Governance. NESDB employs the composite method to calculate the index. It reckons from data for the 2001-2006 periods of 51 selected indicators with contracted benchmarks. The result reveals that overall, Green and Happiness of Thailand still need to be improved (lower than 70 percent), even though it has increased from 61.41 percent in 2001 to 64.02 percent in 2006. The Health component gets the highest score of about 72.27 percent in 2006, whereas Empowerment of Community is the lowest of 54.58 percent at the same year. However, only components of Warm and Loving Family has dropped from 67.87 percent in 2001 to 58.75 percent in 2006. The GHI suggests that appropriate measures and policies, especially human and social policies have to be set up to deal with the components that give negative impact on the happiness of all Thais.

Keywords: Thailand, Happiness, Indicators, Composite index, Development Policy.

1. Introduction

In the past, the focus of national development was on the growth of per capita income, measured by GDP growth. As it was believed that the increase in the production of goods and services together with employment rate would

automatically distribute to all people and eventually reduce the poverty. However, the results show that the economic-led growth has greatly exploited natural resources, environment and ecological system. It led to a worse poverty problem and to a wider income gap. Furthermore, it has forced Thailand to rely on foreign technology, market and inputs. The worst of all was the 1997 Financial Crisis, which stemmed from the imbalance and instability of development.

The Eighth National Economic and Social Development Plan (1997-2001) was the important turning point of development paradigm, which was shifted from the economic-led growth to the ‘holistic human-centred development’ and recalled Thai way of life. As a result, the economic growth became ‘means’ of development. The holistic human-centred development together with the Philosophy of Sufficiency Economy of His Majesty the King have been applied to the Ninth Plan (2002-2006), and also been continued in the current Tenth Plan (2007-2010). Development vision of the Tenth Plan is “Green and Happiness Society”.

Likewise, the global development paradigm was shifted to the awareness on human’s well-being development by Utilitarianism since the eighteenth century. This idea lighted up the development of social indicator in 1950 by the United Nations University (UNU), and then the Human Development Index (HDI) developed by the UNDP (United Nations Development Programme). Lately in 2003, Bhutan has developed Gross National Happiness (GNH), which has an ultimate objective of promoting the happiness of the people.

Owing to the paradigm shifts, the Tenth Plan’s vision, and flow of development for happiness, the GDP and other economic measurements could no longer use as a main indicator for the evaluation. Thailand by the National Economic and Social Development Board (NESDB) has developed “the Green and Happiness Index (GHI)” to evaluate the achievement of development and

happiness of Thai people and society. In addition, it is a driving force in driving the development policy towards the “Green and Happiness Society”.

2. Main Objectives

- 2.1 To develop conceptual framework and indicator by stakeholders’ participation in order to be a mutual agreement and employ the index as a driving force towards the “Green and Happiness Society”.
- 2.2 To be a major tool for pointing out the national status, monitoring and evaluation, adjusting development direction, and designating appropriate policy.
- 2.3 To be an instrument for creating the happiness-led development and adjusting values of Thai people towards a sustainable happiness.
- 2.4 To improve the database and other relevant indicators to be able to employ continuously and effectively.

3. The Index’s development process

The development process of the GHI’s has started since August 2006. The NESDB began with domestic and international literature reviews, concerning on issues of happiness, how to build up happiness, and how to measure the happiness. The office also set up several meetings to gather opinions and ideas of representatives, comprising academics, experts, agencies concerned and stakeholders. Popularly mutual agreement is to focus on ‘**ends**’ of development (happiness) as well as employ ‘**means**’ of development as linkage of relevant situation. The GHI is also divided into 3 levels: the nation, communities and households/individuals in order to give specific detail of happiness in the levels.

The National Economic and Social Development Committee (NESDC) approved the framework and endorsed NESDB to set up more participation sessions to improve the indicator and create mutual understanding of happiness-led development among all Thai people. NESDB carried out surveys by sending questionnaires to academics, agencies concerned, public enterprises and stakeholders to ask for recommendation about the GHI. The office also organised local meetings throughout the country in order to gather ideas of local people on the happiness issues. Most of the group meetings as well as the survey agreed with the core concept, main components and indicators of the index. However, there were some suggestions, mainly on benchmarks and indicators of each component which were accepted to improve the GHI.

4. Conceptual framework of GHI

4.1 Development of the GHI holds **the vision of the Tenth National Plan towards “Green and Happiness Society”**, which is derived from people participation.

Vision of the 10th Plan towards “Green and happiness society

Thai people uphold moral values lead knowledge, can cope with all changes, and live in warm and loving families within empowered communities and peaceful society. Thailand has sound, stable, and equity economy; good quality environment and sustainable natural resources; upholds good governance system for the administration at all levels under constitutional monarchy, and be able to live with dignity in the world community.

4.2 It also embraces **the Philosophy of Sufficiency Economy** which stresses the middle path for appropriate way of life at individual, family, community levels. At national level, the philosophy is consistent with a balanced development strategy that would protect the nation from inevitable shocks and excesses that may arise as a result of globalisation. Sufficiency comprises three core characteristics; there are ‘Moderation’, ‘Reasonableness’,

‘Self-immunity’. Besides, there are two conditions for making the principle of Sufficiency Economy work: Knowledge and Integrity.

In order to apply the Philosophy of Sufficiency Economy to create sustainable happiness, moderation and well-balanced way of life have to perform. The balance approach has to build up at all levels, such as individual (physical, mental and intelligence), community (decentralization to local areas) and national (sound and reasonable socio-economic system). This will create virtuous values rather than income or materials.

Philosophy of Sufficiency Economy

“Sufficiency Economy” is a philosophy that stresses the middle path as the overriding principle for appropriate conduct and way of life at individual, family and community levels. At the national level, the philosophy is consistent with a balanced development strategy that would reduce the vulnerability of the nation to inevitable shocks and excesses that may arise as a result of globalization. “Sufficiency” means moderation and due consideration in all modes of conducts and incorporates the need for sufficient protection from internal and external shocks. To achieve this, the prudent application of knowledge is essential. In particular, great care is needed in the application of theories and technical know-how and in planning and implementation. At the same time, it is essential to strengthen the moral fiber for the nation so that everyone particularly public officials, academics, business people and financiers adhere first and foremost to the principles of honesty and integrity. A balanced approach combining patience, perseverance, diligence, wisdom, and prudence is indispensable to cope appropriately with critical challenges arising from extensive and rapid socio-economic environmental and cultural change occurring as a result of globalization.

4.3 Moreover, there is a **Holistic Human-centred Development** approach which shifts from economic-led growth to human development to be employed in the GHI’s development. This approach concerns on human’s well-being and apply economic development as a mean to upgrade happiness and quality of life. To apply this approach, there are four key methods, as follows;

- (1) Changing the way of thought and development method from a compartmentalised to a more holistic approach, which is human-centred and integrates all developmental factors. Thus, in order to create Green and Happiness Society, all the factors have to be integrated into a holistic and well-balanced approach, as well as should not disturb environment and ecological system.
- (2) Applying the geo-socio graphic approach, which concerns on cultural and biological diversity in each area and community. Thus, the GHI will involve in difference of rural and urban, provinces and regional areas.
- (3) Altering from top-down method to bottom-up as well as applying people participation in the development and decision-making processes.
- (4) Utilising ‘step-by-step’ development, starting from individual, family, community to society so as to build up sustainable happiness society.

5. Definition and Components

Employing the conceptual framework and “method of people participation” through several meetings, which comprise academics, experts, agencies concerned and stakeholders, the outcomes are drawn into the definition of happiness of all Thai people and society.

“Green and Happiness in Thai Society”

“Green and Happiness in Thai Society” means a state that Thai people have quality of life and balance of living between mental, physical and intelligence and be in consistent with economic, social and environmental factors as a holistic model in order to live peacefully between human and human, as well as balance between human and environment.”

To create the happiness for Thai people and the society, there are six fundamental components playing an important role, which are;

(1) **Health** means a state of an individual having healthy physical, longevity, upholding morals, ethics, conscience, willing to learn, capability of “conceptual thinking and practical skill”, reasonableness, and be able to live in a society peacefully. This includes three sub-components, such as healthy physical, moral and ethic mentality, and intelligence.

(2) **Warm and Loving Family** means more than two persons who have affection and target to live together peacefully, perform proper roles and maintain good relationships. This composed of two sub-components, namely family role and good relationship.

(3) **Empowerment of Community** refers to members of a community who congregate, be self-reliance, harmony, and peacefulness, have potentials of learning, organization, change agents and empowered stakeholders, and conserve local tradition, culture and wisdom. There are three sub-components, namely self-reliance community, supportive community and community participation.

(4) **Economic Strength and Equity** is the economy that links individual who is employed, has adequate income and job security with sound and stable economy with fair income and prosperity distribution, reducing

income gap and poverty. The three sub components are employment, economic strength, and economic equity.

(5) **Surroundings and Ecological System** refer to access to quality of basic needs, having safety in life and property, quality of environment and well-balanced of ecological system, which support quality of life and sustainable society. This involves four sub-components, namely basic needs, safety in life and property, good environment and well-balanced of ecological system.

(6) **Democratic Society with Good Governance** are the state in which an individual has rights, freedom and relationship on justice and equal, as well as participate in national administration in order to create good governance with transparency, value for money, and morality, which bring about harmonious and peaceful society and live friendly in the global arena. There are three sub-components, such as democratic awareness, good governance, and harmonious society.

The six fundamental components and sub components have to be well-integrated according to the holistic approach and well-balanced so as to build up the sustainable happiness for Thailand.

6. Methods

6.1 People participation.

People participation was employed to create popular agreement, and apply the new method, 'happiness-led development' as the national value. With this respect, people from all walks of life have to agree in conceptual framework and definition primarily.

6.2 Evaluating ‘ends’ of development

Popularly mutual agreement is to focus on ‘ends’ of development (happiness) as well as employ ‘means’ of development as linkage of relevant situation.

6.3 Setting up the indicators

NESDB examined definition, six main and 18 sub components to set up indicators under appropriate criteria, which (1) are able to reflect each component precisely, (2) have proper data, collected systematically and continuously, and (3) (some indicators) are used by stakeholders and organizations.

Then, there was the stage of selection. The office selected indicators from (1) relevant indicators of agencies concerned and (2) opinions and suggestions from stakeholders and local meetings. After that, the office selected the 51 indicators that can reflect the ends of development, evaluate objectives of each components and had reliable data. Apart from that, there were related indicators to explain trends and changes of the country’s situation.

6.4 Benchmarking

The GHI is a composite index, thus it is necessary to construct benchmarks of each indicator. This is because benchmarking will be applied to evaluate and compare impacts development as well as employ the results to improve development direction toward “Green and Happiness Society”. In general, there are several methods of benchmarking: (1) applying target of plan or strategy, (2) applying international benchmark, (3) using result of specific study, (4) consulting experts in each area, such as psychologist, medical doctor, and etc. and

(5) using average means. However, the qualitative indicators, such as moral, ethic and culture still need to find appropriate way for benchmarking.

6.5 Measurement

(1) Popular method is to measure results, compared to targets or benchmarks, then converse to be percentage. The score approaching to 100 percent means success.

(2) There are some cases using scaling interpreted success. So, the achievement has to rescale to be percentage. If the result approaches to 100 percent, it means success.

(3) In some cases that cannot set up benchmark or target, normalisation will be employed. If a year has a high score approaching to 100 percent, it means the development succeed most.

6.6 Weighting

Equal weight method is applied to calculate due to holistic approach and balance-based circumstance (to build happiness in the society).

6.7 Interpreting the results

Results of each component report in percentage, and then reckon into composite index. If score is high, Thailand has green and happiness society, and vice versa.

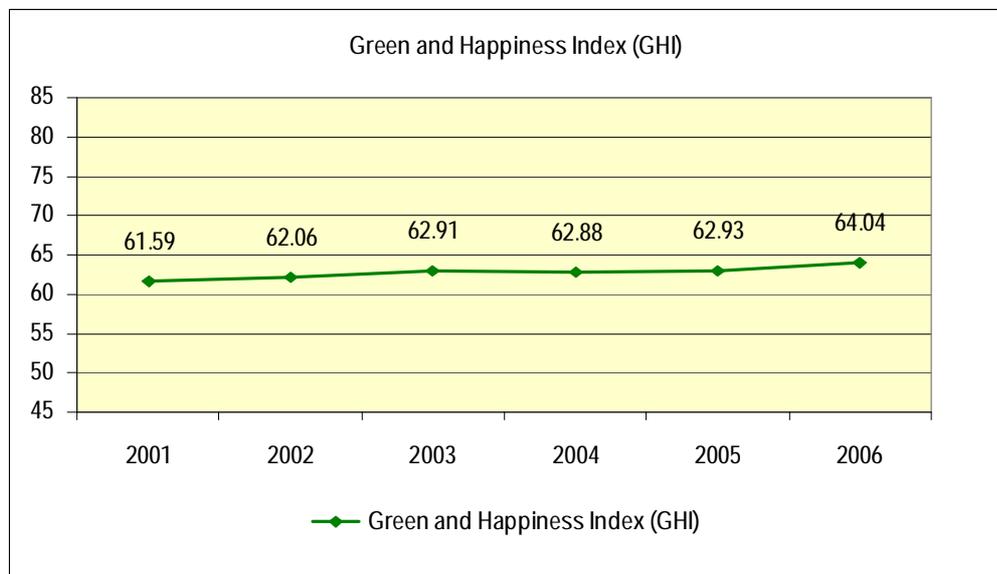
7. Summary of Green and Happiness Situation in Thailand

After analysing the composite index, results are;

7.1 Overall

Table 1 GHI (2001 – 2006)

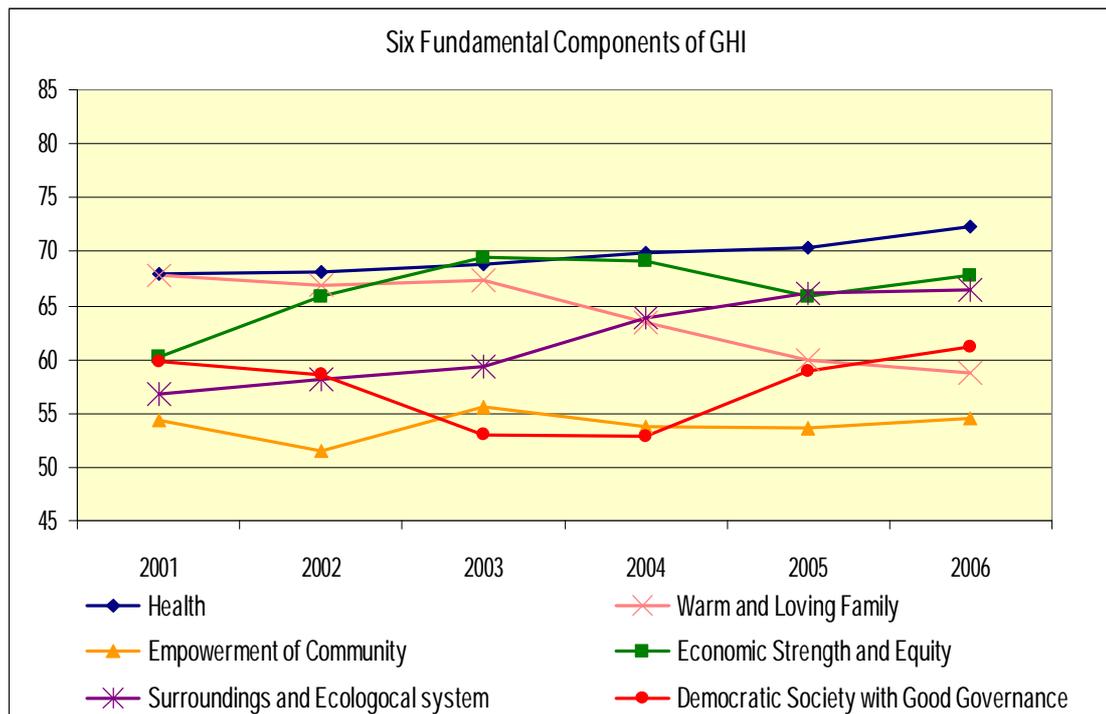
components \ years	2001	2002	2003	2004	2005	2006
1. Health	68.01	68.05	68.80	69.91	70.38	72.27
2. Warm and Loving Family	67.87	66.94	67.27	63.42	59.99	58.75
3. Empowerment of Community	54.32	51.43	55.52	53.82	53.61	54.58
4. Economic Strength and Equity	60.20	65.84	69.42	69.19	65.75	67.82
5. Surroundings and Ecological system	56.77	58.10	59.33	63.80	66.08	66.36
6. Democratic Society with Good Governance	59.74	58.65	53.05	52.91	58.83	61.17
GHI	61.59	62.06	62.91	62.88	62.93	64.04



Trends of Green and Happiness Index changed positively, although the score is unsatisfied. During the last six years (2001-2006), level of green and happiness in Thai society needs to be improved although the trends have increased from 61.59 percent in 2001 to 64.04 percent in 2006. In this regard, in 2006, Health obtains the highest score, of about 72.27 percent. Economic Strength and Equity, and Surroundings and Ecological System are 67.82 and 66.36 percent, respectively. Good Governance, Warm and Loving Family, and Empowerment of Communities are 61.17, 58.75, and 54.58, respectively. The

positive trend of GHI results from successful development in all factors, except family has negative sign.

7.2 Changes in main components are, as follows,



- Development of Physical, Mentality and Intelligence has improved continuously, while moral, ethic and quality of learning has been at low level.** The Health index increased, from 68.01 percent in 2001 to 72.27 (moderate level) percent in 2006 resulting from improved health care. Thai people have good health and longevity. Illness, particularly chronic diseases decreased. The physical index went up to 86.02 in 2006 because the government's health policy widened the public access of health service, increasing to 97.75 percent in 2006. Mentality, moral and ethical indicators has improved to 70.34 percent in 2006. Psychological patients and suicide rate decreased, but problems of moral and ethic remained. However, intelligent factor of Thai people needed to be improved, although quality of education reduced continuously from 61.14 in 2001 to 53.27 percent in 2006. Years of enrollment, at average of 8.5 years were lower than its neighbouring countries,

of about 10-12 years. With this respect, problems of the quality of education needed to be coped with urgently.

- **Increasing of numbers of abandon children and elderly as well as raising up problems on role and relationship of Thai family.** The rapid economic and social changes gave impacts on way of life, behavior and moral, values of Thai people. The impacts triggered down the Warm and Loving Family. The Family indicator declined from 67.87 percent in 2001 to 58.75 percent in 2006. This reclining indicator also pulled the composite GHI down. This is because family members lacked of awareness of their roles, growing up children and taking care of elderly persons, in particular. Consequently, abandoned and homeless children have increased to 34 percent and Child and juvenile cases have rose up to 38 percent during the five years. Furthermore, numbers of lonely elderly persons have enhanced from 3.6 percent (of total elderly persons) in 1994 to 7.5 percent in 2006. There was an increase of separated couples and a high divorce rate of about 4.9 couples per 1,000 households.

- **Community has less economic self-reliance, but there are participation on problem-solving and community development.** The Empowerment of Community got the lowest score. It enhanced slightly from 54.32 percent in 2001 to 54.58 percent in 2006 which has been low and nearly unchanged. Particularly, its Economic Self-reliance indicator was at the low rate, moving down from 44.01 percent in 2001 to 38.77 percent in 2006, even if there was an increase of numbers of community organisations, Meanwhile, Supportive Community indicator remained low, less than one-third of all communities in Thailand. With this respect, Empowerment of community needed to be strengthened in order to be a solid social foundation for being immunity and creating balance and happiness in a society.

- **Thai economy becomes stronger due to improvement of economic immunity. Employment rate is in good sign, but there are problems on economic self-dependency, income gap, and prosperity distribution.** The Index of Economic Strength and Equity has changed positively, despite of the fact that it fluctuated from 60.20 percent in 2001 to 69.19 percent in 2004, but dropped to 65.75 percent in 2005 and went up slightly to 67.82 percent at the end of the Ninth Plan due to sensitivity and dependency. An enhancing of production sector and policies about job distribution helped to reduce the unemployment rate. With this respect, the unemployment rate was low, at 1.38 percent (of total labour force) in 2006. However, labour still got inadequate income. Household debt increased from 82,485 baht in 2002 to 116,588 baht in 2006. As for the overall economy, the Economic Strength increased from the economic growth and strong immunity due to reducing in capital imports and public debts, and increasing in Total Factor Productivity (TFP). However, there was thread to economic changing, such as inflation and oil crisis owing to economic dependency. However, economic equity and distribution has improved. After calculating by Theil index, economic distribution enhanced from 51.94 percent in 2001 to 80.95 percent in 2003 and reduced to 71.84 in 2006.

- **Problems of safety in life and property and problems of environmental quality and ecological system have rose up in Thai society.** Even though index of Surroundings and Ecological System has developed continuously from 56.77 percent in 2001 to 66.36 percent in 2006, it needed to be improved. The surrounding promotion obtained from the government's policies which enhanced access into public infrastructure and basic needs. However, there were problems on security and safety in life and property, especially crime and drugs which gave negative impact on quality of life and happiness of all Thais. Criminal cases has increased from 1.71 cases per 1,000

persons in 2001 to 2.77 cases per 1,000 persons in 2006 and drug cases has increased from 1.20 cases per 1,000 persons in 2004 to 1.77 cases per 1,000 persons in 2006. In total, indicator of safety in life and property has dropped from 59.22 percent in 2005 to 50.76 percent in 2006. In addition, quality of environment and ecological system has improved, although waste and air pollution must be improved. Carbondioxide concentration has increased from 2.50 tons per person in 2001 to 3.05 tons per person in 2006. Meanwhile, fertility of natural resource has also decreased from 32.9 percent in 2001 to 32.6 percent in 2006. Thus, rehabilitation of ecology needed to be managed urgently to prevent natural disasters.

- **Thailand needs to improve democracy and good governance.** Democratic Society and Good Governance Index is at 61.17 percent (low level) in 2006, although it has been improving from 2005. The positive trends during the last two years resulted from the 1997 Constitution of the Kingdom of Thailand, which encouraged people to participate in the national administration and development. Consequently, indicator for Democratic awareness of Thai people has rose up from 54.22 percent in 2001 to 66.81 percent in 2006. However, corruption and good governance has low level by the low score of Transparency Index (TI) at 3.60 from 10. Harmony in the society also decreased to 51.43 percent at the end of the Ninth Plan because of violence in the south of Thailand and human rights case. Therefore, problems from corruption and harmonious promotion were critical issues and needed to be improved urgently.

8. Summary and Policy Recommendation

Results of 'Green and Happiness Index' from 2001-2006 shows that although the index has continuously increased, the results still are at 'need to be improved' (lower than 70). The problems include; lower of morality, decrease in quality of learning, declining in empowerment of community, pollution,

problems of safety in life and property and harmonious society, economic dependency and sensitivity, and high income gap. Meanwhile there are positive factors, namely physical improvement, preservation of environment and ecological system, stability of economic growth and employment.

Thus, to improve Thai people and society towards ‘Green and Happiness Society’, main policy recommendations and criteria are, as follows;

- **Morals and ethics promotion.** There are three main policies, namely designating a national strategy for morals and ethics promotion, encouraging three domestic institutes, families, religions, and schools to support the way of life, based on morals and sufficiency, as well as promoting leaders’ morals and ethics at all levels.

- **Building up intelligence and life-long learning of Thai people towards a learning society and strengthening physical and mental health,** by expanding educational opportunity and life-long learning, developing knowledge innovation and knowledge management to be a foundation of knowledge based society, as well as developing health care system and prevention to cushion new epidemic diseases.

- **Strengthening roles of Thai family and their relationships.** There are five suggested measures, namely promoting learning of family to perform properly on Thai culture and society, maintaining strong relationships among family members and family values, as well as campaigning warming and loving family through mass media and information technology.

- **Promoting security and safety in a society** by serious prevention and management of problems of crimes and drugs, developing an effective inspection process, and empowerment of legal process.

- **Empowering local communities and civil society.** These methods include encouraging public participation of local people to participate in strengthening economy and capability of communities, supporting participation and grouping of local people in all forms and activities, building security in community's economy on capability and self-reliance of each community, developing welfare provision in communities, increasing decentralisation of national administration to communities, as well as distributing equally development prosperity.

- **Strengthening quality, stability and equity of Thai economy.** The methods are to restructure production sector to enhance quality and quantity of goods and services, to reduce foreign dependency, to encourage economic immunity and promote saving at all levels, to stimulate prosperity and income distribution to local areas, to develop systematically knowledge and its management on production to pave the way for knowledge-based production, to encourage research and development (R&D), particularly promotion of local wisdom and Thainess, as well as to empower labour potentials and develop social security system so as to create better quality of life.

- **Controlling Pollution, promoting production, using 'clean technology', undertaking waste management.** The methods include campaigning and disseminating prevention and management of pollution, promoting 'green business', encouraging private sector to participate in environmental management as well as adjust the consumption behaviours.

- **Rethinking of public sector in employing environmental capital appropriately to sustain ecological system** by improving rules and regulations of natural preservation and rehabilitation, developing data system of natural resources, encouraging people participation, as well as promoting knowledge management of natural resources management to local organisations.

- **Stimulating people from all walks of life to be aware of rights, duty and responsibility.** The methods are to promote love, unification and harmony and encourage democratic awareness to all Thais, to designate measurements of managing problems of corruption, to develop competitiveness of local organizations to be self-reliance by stimulating decentralization to local areas and improving taxation of local agencies, and also to strengthen good governance in private sector.

9. The GHI's Next Step

After presenting the index at the annual conference on the 6th July 2007, NESDB will submit the GHI to the cabinet for approval in order to officially use the index. NESDB will also further develop the GHI to be consistent with rural and urban areas so as to evaluate specifically in terms of socio-geo approach.

Moreover, the office will drive the GHI forward in order that it is able to (1) build up knowledge and learning process to support the other driving force, (2) stimulate stakeholders' participation to involve and create the happiness-led development within the community, and (3) develop a necessary database to be up-to-date, convenient to use and easy to access for the GHI.