

**QUALITY OF LIFE INDICATORS DEVELOPMENT  
USING PARTICIPATORY APPROACH**

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**QUALITY OF LIFE INDICATORS DEVELOPMENT USING PARTICIPATORY APPROACH**

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**ABSTRACT**

This study was to develop quality of life indicators for people living in the housing estate using participatory approach. A broad perspective had been applied as research guide to develop quality of life indicators and integrated research techniques had also been applied, which were the Participatory Action Research (PAR) and the Participatory Rural Appraisal (PRA). The research process had been divided into 5 steps, i.e. 1) general appraisals and data collection of the community, 2) seeking meaning and factors of quality of life, 3) selecting factors and indicators of quality of life, 4) testing factors and indicators of quality of life including developing weighing system, and 5) appraising potentials in developing indicators of the target group.

It was found that 1) quality of life in views of the target group was eliminating all problems and turning future life ready in every thing needed including a good social relation. 2) The quality of life indicators contained 6 factors and 16 indicators, which were (1) liability, (2) adequacy of 4 basic means, (3) education, (4) theft and assault, (5) conflicts among family members, (6) a warm family and the presence of parents and children together, (7) public utilities (road, water supplies, electricity), (8) hygienic and expeditious garbage collecting, (9) community groups/ organizations helped suffering members, (10) conflicts among community households, (11) household members regularly helped public interest, (12) household members were accepted/ respected by community members, (13) number of common activities among members/ community, (14) number of addicts/ gamblers, (15) number of mental disorder patients, and (16) annual health check. 3) Factors/ conditions affecting achievements on the process of developing quality of life indicators were title/leading issues of research that were positive and contiguous of participants, process designs and proper activities that fit the community lifestyle. On the contrary, factors/ conditions constraints were time frame, occupational differences and education of participants.

It was recommended from the research that both government and private sectors related, including the local administration should readjust thinking techniques of developing the quality of life indicators from previously seeing indicators as outputs of the development to be implemented in appraising the quality of life into employing the process of developing indicators to be as tools for creating learning for the target group. Also, the set of indicators gained from developing process of people should be data for planning to improve affairs of the responsible work units including applying the process of developing indicators to be as tools for creating cooperation in handling other community problems.

KEY WORDS: INDICATORS DEVELOPMENT PROCESS/ PARTICIPATORY ACTION RESEARCH

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### บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อพัฒนาตัวชี้วัดคุณภาพชีวิตของประชาชนที่อาศัยในชุมชนบ้านจัดสรร โดยใช้กระบวนการมีส่วนร่วม วิธีการวิจัยประยุกต์ใช้แนวทางการสร้างตัวชี้วัดคุณภาพชีวิตภายใต้มุมมองการวิเคราะห์แบบกว้าง (Broad perspective) เป็นฐานคิดการวิจัย และประยุกต์เทคนิคการวิจัยแบบผสมผสาน ได้แก่ การวิจัยปฏิบัติการอย่างมีส่วนร่วม (PAR) การประเมินสภาวะชนบทอย่างมีส่วนร่วม (PRA) กระบวนการวิจัยจำแนกเป็น 5 ขั้นตอน ได้แก่ 1) การประเมินสภาพทั่วไปและการรวบรวมข้อมูลชุมชน 2) การหาความหมายและองค์ประกอบคุณภาพชีวิต 3) การคัดเลือกองค์ประกอบและตัวชี้วัดคุณภาพชีวิต 4) การตรวจสอบองค์ประกอบและตัวชี้วัดคุณภาพชีวิตและการพัฒนาระบบถ่วงน้ำหนัก และ 5) การประเมินศักยภาพในการสร้างตัวชี้วัดของกลุ่มเป้าหมาย

ผลการวิจัย พบว่า 1) คุณภาพชีวิตในทัศนะของกลุ่มเป้าหมาย คือ การทำให้ปัญหาต่างๆ หหมดไป และทำให้ชีวิตในวันข้างหน้ามีความพร้อมในทุกสิ่งที่ต้องการรวมถึงความสัมพันธ์ที่ดีทางสังคม 2) ตัวชี้วัดคุณภาพชีวิต ประกอบด้วย 6 องค์ประกอบ 16 ตัวชี้วัด ได้แก่ (1) จำนวนหนี้สิน (2) ความพอเพียงด้านปัจจัยสี่ (3)ระดับการศึกษา (4)คติหลักขโมยและทำร้ายร่างกาย (5) ความขัดแย้งของสมาชิกในครอบครัว (6) การมีครอบครัวอบอุ่น พ่อ แม่ ลูก อยู่กันพร้อมหน้า (7) การ มีสาธารณูปโภค (ถนน ประปา ไฟฟ้า) (8)บริการจัดเก็บขยะถูกสุขลักษณะและรวดเร็ว (9) กลุ่ม/องค์กรในชุมชนที่ช่วยเหลือสมาชิกที่เดือดร้อน (10) คริวเรือนในชุมชนที่มีความขัดแย้งกัน (11) สมาชิกครัวเรือนช่วยเหลืองานสาธารณประโยชน์เป็นประจำ (12) สมาชิกครัวเรือนที่ได้รับการยอมรับ/นับถือจากสมาชิกชุมชน (13)จำนวนกิจกรรมร่วมกันของสมาชิก/ชุมชน (14) จำนวนผู้ติดยาเสพติด/การพนัน (15) จำนวนผู้ป่วยทางจิต (16) การตรวจสุขภาพประจำปี 3) ปัจจัย/เงื่อนไขที่ส่งผลต่อความสำเร็จของกระบวนการสร้างตัวชี้วัด คือ เรื่อง/หัวข้อที่ศึกษาเป็นประเด็นทางบวกและเป็นเรื่องใกล้ตัวของกลุ่มเป้าหมาย การออกแบบกระบวนการและการจัดกิจกรรมที่เหมาะสมกับวิถีชีวิตของชุมชน ส่วนปัจจัย/เงื่อนไขที่เป็นข้อจำกัด คือ ข้อจำกัดด้านเวลา ความแตกต่างด้านอาชีพและระดับการศึกษาของผู้ร่วมกิจกรรม

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## **CHAPTER I INTRODUCTION**

### **1. Significance of the problem**

“Quality of life” is created by man and endeavored by man alone. Besides it is also a criteria or a standard that man develops his own quality into desired goals because a person with quality of life leads a just way of life using legitimacy to respond to various needs without aggravating trouble to himself and others. There are creative developments and improvements of oneself, social and surroundings as well. Intelligence, reasoning and peaceful means are used in solving issues. There is acceptance of self-value and importance, and of others, societies and environment that will lessen the problems and conflicts in living together. For, persons with good quality of life will be a foundation for peaceful families and societies with progress, stability, security, unity and orderliness. Quality of life is then vital to both person and society. A person and a family with good quality of life would always aim in upgrading their living in all aspects.

“Quality of life” is currently destined as key in developing the country. Gripping good quality of life would be desirable and is the ultimate goal that every human should deserved. But to own good quality of life human does rely not only on human’s factors (e.g. living behavior) but also coheres with environment, economy, society and politics. At the meantime, a good quality of life was key to create changes of surroundings, economy, society and politics as well.

Sequences of development are evident with the concepts focusing economic growth and improvement, development of infrastructures and prioritizing industrial sector as in the past. Although it leads to progress of the country, raises the national income, increases employment and facilitates daily life of people, on the other hand, it discriminates earning dissipation, and benefits between rural and urban development, and among groups in societies, which is critical to the Thai quality of life. It also

draws other social problems such as narcotics, security of life and property, exploitation and alleviation of natural resources destroying the ecological system and environment

The impact of “development” approach on economic growth and political stability which Thailand received from the National Economic and Social Development Plan 1-7 by considering the national income per capita as development indicator, it was found very high. Meaning, GDP rises to 48 times from 58,970 million Baht in 1961 to 2,833,277 million Baht in 1992 and increased to 3,161,374 million Baht in 1993. It resulted an increase of GDP per Capita from 2,101 Baht to 48,166 Baht per annum during the same period. (Office of the National Economic and Social Development Board, 1995: 86-92). Even though the economic boom is lucrative to overall economy in many aspects, however, it also caused some imbalances of other key developments. In particular, upon considering basic problem of the income disintegration, inadequacy of basic service, and deterioration of the natural resources and environment. There was also the critical problem of discrimination of household earnings at different levels. We found from National Statistical Office (2536: 14-15) that from the highest income group or the richest from the first twenty percent have proportionately income increased from 49.3% in 1976 to 64.9% in 1983. On the contrary, the poorest group of the country, the last twenty percent have proportionately income decreased from 6.1% to 4.5 % during the same period. All other deficiencies such as electricity, water and communication system are more critical each day. (Kanoksakdi Kaewthep, 2543: 103)

Another critical issue is the deterioration of natural resources and environment due to economic boom in Thailand during the past years. This caused the mobilization and high rate utilization of natural resources especially land, forest, water resources, fishery and mineral, which destroy those resources. Moreover, the inefficiency of natural resource management is another cause aggravating rapid resource degradation. This can be witnessed in the decrease of forest land from 109.5 million rai or 34% of total national land in 1978 to less than 90 million rai or less than 28% of total land in 1989 (Royal Forest Department, 1992: 4). Further, economic expansion particularly in industry and tourism including the growing of urban

population increases various pollution such as water, air and noise and remnants of hazardous matters. All these endanger quality of life of people.

The negative effect of development establishes a new paradigm in development focusing on balance of population, environment and societies, which is the concept of sustainable development and widely used in development cycle. During the World Summit on Social Development in Copenhagen in March 1995; sustainable development strategies have been restated and counted of great importance. An essential part is the promotion of environments and helps developments persisting to human - centered, prioritizing sustainable economic growths and developments by integrating population aspect into the development strategy accelerating to sustainable development so as to enabling the reduction of poverty and to enhance the attainment of population goals and improvement of people's quality of life (United Nation, 1992: 29)

Although the sustained development concept has been adopted as critical issue, however, the national development in the past; its strategy implemented should follow the development paradigm selectively suitable to time. Thailand is not different from other recent developing countries, which persistently prioritize modernism theory, initiating domestic changes to what is called "modern yet under developed"

After attending the United Nations Conference on Environment and Development (UNCED) at Rio de Janeiro in June 1992, Thailand adopts the concept of "sustainable development" and its Action Plan 21 (Agenda 21) for its implementation. Definitions and the concept of sustainable development have been defined to coincide with its context of the Thai society development. The concept was also annexed in principle to the National Economic and Social Development Plan 7 (1991-1996) and Plan 8 (1997-2001) with the essence to develop human resource, living standards, and natural resources. However, the implementation measures so-called "sustainable developments" are unlikely implemented constructively.

The issue of worsening public standard of living caused by asymmetrical development; the government sectors attempt to redress such issue by setting quality

of life development as top priority including seriously identifying quality of life indicators to measure quality of life and social conditions related to quality of life. It has begun since 1975 by the government offices. The purpose is to be guideline for planning and evaluating the national development as a whole, nationwide. This attracts many sub-agencies, which begin to form the quality of life indicators within their responsibility. Moreover, various foreign indicator models have been applied to this day. Quality of life indicators in Thailand are countless; those follow international organization's indicators model such as OECD (Organization of Economic Cooperation and Development) living standard indicators and UNESCO quality of life indicator etc. Also, indicators developed for Thai society such as Office of the National Economic and Social Development Board's social indicators, Department of Public Welfare 's quality of life indicators and Living Standard Administration Board 's indicators, which are popularly used. Two of which are 1) The National Rural Development Data System (NRDDS) and 2) Basic Subsistence Data System (BSDS). Assessment of both systems was still found with many limitations in both target and levels of measurements, indicator development process and areas or target group of measurements. They were as follows: (Anuchart Puangsamlee and Orrathai Aj-um, Eds., 1998: 11; Social Research Institute, Chulalongkorn University, 2001: 19; Office of the National Economic and Social Development Board, 2001: 3)

1. In relation to problem and limitation of target and level of measurements, it is found that most indicators have been developed for planning and identifying approach of development at the national level and as the comprehensive measurement. No agency forms such indicators by embracing needs of people in the areas of measurement to be as fundamental data. There is no other specific indicator development except that of Bangkok's which is no longer used. Besides, indicators developed emphasize investigations of tangible objectivity. The numerical values collected will be analyzed and interpreted to what degree societies and the nation have quality of life. It lacks subjectivity. Some employ analysis criteria at community and household level by collecting data from community representatives or household leaders and analyze at overall views of the nation but it lacks individual level. People see none of their benefits.

2. In relation to forming indicator process, most had been identified by the responsible agencies generally from brainstorming of experts and persons involved from the responsible agencies. Many redundancies are found because many agencies have prepared, lacked of coordination and turned the indicator spread to each area serving the needs of the agencies rather than the social emergencies. It creates wastage and fast obsolete. Moreover, it lacks public participation and such process does not create learning process among people thus against development principle applying people-centered and participation. People do not comprehend goals, significance and benefits from the developed indicators. In turn, the data collection was just meaningless and unaware of accuracy or giving false data, which affect precision and validity.

3. In relation to area and target group, it was found that most indicators are requisite for rural areas even in the past there have seen sets of urban indicators, e.g. basic necessity indicators of communities in the urban areas of The Local Administration Department, the urban indicators of Bangkok, Muang Pattaya, and Nonthaburi. These indicators found restrictions in data collections similar to the rural indicators. Meaning, the data collection was just meaningless and unaware of accuracy or giving false data, which affect precision and validity. (Task Team of Improving and Developing Quality of Life Indicators of Rural and Urban People, 2544: 5-7)

Such limitations lead to errors, imprecision and invalidity. It makes the past quality of life measurement unable to relevantly and authentically reflect quality of life of pole and the real condition. Attempts have been effort among academicians and the government sectors to develop quality of life indicators to lessen the problems and the past limitations.

Thailand's academia attempt to develop quality of life indicators responding to the Thai societies objectively and subjectively as have been found in much research reports on quality of life indicator development of Thai people. For instances life quality of life indicators studied for Thai population conducted by Sumalee Santiphonvutthi et al. (2541); a research project on indicators development for quality of life and Thai society by Social Research Institute, Chulalongkorn University

(2001); Esan Farmers' Quality of Life Studies: People View point by Phanittha Phanijajivakun and Penchan Pradabmuk (1999); Research Project on indicators developmental process of the Thai happiness by Yongyuth Kajorntham and Aphisit Thamrongvarangkoon (2000). The outcome of most studies showed that many indicators of both positive and negative changes upon quality of life of people. Economic growth rate alone cannot adequately measure quality of life. New indicators should be sought after that can better reflect society and develop public participation to prepare quality of life indicators, which are indispensable and unavoidable conditions. Moreover, it is commented that there should be a number of quality of life indicators differentiated by various locations and should reflect many levels of quality of life.

As part of the government sector, Quality of Life Development Administration Board attempts to develop indicators extensively covering in particular areas and target groups. Meaning, it attempts to redevelop urban indicators by its necessity. Rationally, Thai urbanization and the number of urban population are likely increase constantly part due national administration reform in accordance with the Constitution 1997 emphasizing more local population responsibility for their own locality and decentralization from central to regional administration. But it still faces the same restrictions of developmental process that is public participation cannot be implemented at every developmental phase and the procedure is likely modifying the existing rural indicators by readjusting certain criteria of indicators and it needs to be accomplished for implementation in 2003. (Task Team of Improving and Developing Quality of Life Indicators of Rural and Urban People, 2001: 5-20)

Redeveloping urban indicators by its necessity. Rationally, Thai urbanization and the number of urban population are likely increase constantly part due national administration reform in accordance with the Constitution 1997 emphasizing more local population responsibility for their own locality and decentralization of power from central to regional administration. Under such changes, new local administration areas are created such as sub-district administration. Municipalities (or political units of township since 1952) have been increased and upgraded onto sub-district of today (2004), there are 1,129 municipalities (Department of Local Administration Promotion,

Ministry of Interior, 2004: 1) as compared to formerly 149 in 1999 (Architecture Faculty, Chulalongkorn University, 2002: 14). This change more likely makes a rapid growth of towns. According to Office of the National Economic and Social Development Board (2001: 49), it has been found that urban population will increase from currently 37% to 50% in the next 10 years. This rapid growth will thus entail countless problems.

Urbanized process and development during the past years has allowed rural poor people flow into the city to seek better opportunity of living condition. With rapid and dramatically increase of population, it required more social services, infrastructure and more housing. When “city” cannot serve different services for people and city activities are gradually growing, city physical surrounding and quality of life become a problem to city people who need to tolerate all the problems regardless environmental quality, eco-social problem and insecurity against life and property. Therefore today city seems to shrine public places, and what has congruently disappeared is people’s quality of life (Attama Phokapanitvong, 2003: 6).

With restrictions of developing the quality of life indicators, as above, even there are attempts to do so such as GDP indicators, but all these indicators were likely the economic dimension. They are indispensable but inadequate to reflect the development of the people quality of life with precision, and accuracy, which adequately reflect reality. Effective quality of life indicators need the life owner to participate and to define by itself, as it is called “insider’s view”. It should then better reflect reality and viably to be important tools to indicate the process and consequences of developing the quality of life of people. The researcher is interested to investigate developing the quality of life of people by participatory process. It is not only intended to develop the quality of life indicator by people perspectives but also determined to implement the research process as tool in creating learning process for people. It is the relevant process with the approach of the sustainable development emphasizing people-center development prioritizing human as goal and development process in line with the National Economic and Social Development Plan 8 and 9. It is also consistent to the philosophy of population education focusing human to enter the learning process to initiate understanding, awareness, responsibility, and skills of

problem solving and decision-making enabling to properly utilize with self-condition and society to lead a quality of life.

In addition, this research is tended for generalization. The study area is then purposively selected and it is a housing estate in Putthamonthon district, Nakhon Pathom province, on the basis that it is an area of urbanization. Although in the past, there have been some studies in the quality of life of people in township communities for instance in the work of Uthumporn Jamornmarn (1987) studying the quality of life of Bangkok people however but it seeks factors and indicators. Or the work of Atchara Wongwattanamongkol (1993) investigating the quality of life of Bangkok people, but none is found to investigate quality of life of people living in housing estate communities in terms of creating learning process to lead a good quality of life.

## **2. Objective**

To develop quality of life indicators of people living in housing estate communities using Participatory Approach.

## **3. Research questions**

3.1 What are the perspectives of quality of life among people living in housing estate communities?

3.2 What are quality of life indicators of people?

3.3 What is a process in making quality of life indicators by people, what conditions/ factors being the determiners ?

## **4. Scope of study**

### **4.1 The methodological scope**

4.1.1 There are many methods to develop quality of life indicators. This research applies Broad Perspective in analysis as thinking-based by integrating many methods, i.e. the Participatory Action Research (PAR), and the Participatory Rural Appraisal (PRA) as tools in investigation. They were different from traditional

approach of developing quality of life indicators. That is 1) objectives of traditional developing quality of life indicators, they are established as “output” to evaluate or measure the quality of life of the target group. 2) The assumption of the meaning of the word “quality of life” or the “better life” that often refers to higher income, more security, healthier, longer life, acquiring higher knowledge. The index of quality of life is likely showing achievement by objectives. However, each group and each individual actually has different perception on the meaning of “quality of life” or the “better life” and that perception may varies upon time. Then, to allow people determine their own definitions and methods in attaining their goals is considered a primary and critical step of learning a good quality of life. It helps people to understanding, awareness, responsibility, and skills of problem solving and decision-making enabling to properly utilize with self-condition and society to lead a quality of life responding to their own condition and society to lead a good life. This research applies broad perspective in analysis as thinking-based. Key principles are indicators developed need to reflect experience or attitude of the target groups or informants; formulation process or the indicators developed are gained from the participation of the persons involved within the study area in the direction of strengthening participants and reflects the changes happened.

4.1.2 Findings are aimed for generalization and needs no delegations to refer the findings with other areas because it is the investigation of definition and indicators of quality of life of a specific group, specific area where each group and each area are likely owning different perspectives.

4.1.3 By general principles, developing indicators needs defining criteria/ standards for the purpose of evaluating the indicators and their outputs. This study does not define criteria/ standards to evaluate or measure quality of life of the target group because it has no such intention but to develop quality of life indicators from the people’s perspectives themselves and employing the formulation process of quality of life indicators as tools to establish learning for people.

4.1.4 Beside No. 4.1.3 by general principle of formulation, it needs to weigh factors/ indicators to balance the popular one commonly used. Most employ

statistical applications to find values and the formula of weighing was based on balancing each side values of the factors/ indicators. Summary is usually using the total score of each item having equal weighing. This method is likely complicated, had it been used in this investigation. Because, this study is not determined to the statistical validity but to employ the formulation process of quality of life indicators as tools to establish learning for people as mentioned earlier. Weighing indicators in this study is based on Yongyuth Kajorntham and Aphisit Thamrongvarangkoon, who develop method of calculation to reduce weakness of the traditional method by finding the weight gained from evident data and test factors/ indicators with each pair. This technique has passed the trial of comparison with other technique such as the visual analog, which is relevant.

In addition, weighing factors/ indicators in this study has been fulfilled by comparatively weighing factors in pair first and later weighing indicators in pair within the each factor but not all indicators will be comparatively weighed from all factors since there are too many pairs. It makes weighing calculation likely difficult and unsuitable to formulate indicators as instrument to establish learning for local people. This technique is consistent to the approach of Yongyuth Kajorntham and Aphisit Thamrongvarangkoon.

#### **4.2 The scope of area**

Findings are aimed for generalization and needs no delegations to refer the findings with other areas because it is the investigation of definition and indicators of quality of life of a specific group, specific area where each group and each area are likely owning different perspectives. The study area is then purposively selected and it is a housing estate in Putthamonthon district, Nakhon Pathom province, on the basis that it is an area of urbanization. In the past it has been a fertile land suitable for cultivation. This is why the inhabitants have been in agriculture since the past or in other words Putthamonthon district is one of the more important agricultural area of the country. At present this district is undergone rapid change due to governmental development projects particularly decentralization of development toward peripheries to reduce the cramming of inner city of Bangkok (Boonchok Thaitatakun et al., 2001:

87). It ensues the development of communication routes linking between cities. Putthamonthon district becomes borderline area accommodating the growth of Bangkok and Nakhon Pathom province. With all this communication convenience that Putthamonthon district has evolved itself toward a city-like district. Medium and high prices housing business and other real estate business are skyrocketing (Supavan Phlainoi, Ed., 2001: 56). Currently there are 9 housing estates in Putthamonthon district, in 2001, and increased into 15 housing estates in 2004. Two entrepreneurs are applying for license. Among 15 housing estates there are medium size (101-300 houses) and over 301 large size ones comprising large number of inhabitants (Office of Land, Nakhon Chaisi, 2004: 25-30) This rapid growth of housing and real estate businesses affects the use of land from agriculture to commercial exploitation. It urbanizes the rural way of life. Such changes, even it entails a good quality of life by open opportunity for people to access education and options for diversified occupations as well as convenience of transportation and infrastructures. On the other hand, changing rural way of life toward city dwellers followed by competition, taking advantages, and pressure leading to deviatory and aggressive behaviors directing to violent conflict among community residents as well as affecting the overall quality of life.

## **5. Expected benefits**

5.1 Acquisition sets of quality of life indicators of people who live in housing estate communities with people participating in the formulation, not only it is to encourage learning of people but also they can apply quality of life indicators as tool in improving and solving problems leading to good quality of life.

5.2 Quality of life indicators gained from quality of life indicators of people living in housing estate communities are advantageous to persons involved with housing estates business and the government agencies, e.g. Housing Authority of Thailand, Department of Town and Country Planning, as well as the private sectors e.g. housing estate enterprise to use as data in improving and planning business development of the housing estates for better quality of life of the residents.

5.3 Developing process of quality of life indicator by people participation will be advantageous for academic in terms of formulating indicators different from the traditional way. The indicators are not only the outputs of the process but also being tools to create learning leading to behavioral improvement and changes for better quality of life.

## **6. Operational definition**

6.1 Quality of life refers to good life quality, satisfying in perception and skills of people in housing estate communities of the study area through collective operational process.

6.2 Quality of life Indicators refers to a set of variables created and developed by people in housing estate communities of the study area through collective operation process. The set of variables contains factors of quality of life and variables of good quality of life indicators.

6.3 Community Researcher refers to people in of the study area volunteer to participate in the research and work as coordinator, operator, co-thinking, co-working and researching process.

6.4 Research Team refers to the main task team containing the community researchers, the researcher, and the assistants for recording.

## **CHAPTER II LITERATURE REVIEW**

The study on “Quality of Life Indicator Development using Participatory Approach” is to develop quality of life indicators of people who live in the urban communities of housing estate through participatory process by reviewing literatures relating as follows:

1. Concepts of quality of life development
  - 1.1. Human development
  - 1.2. Human security
  - 1.3. Social development
  - 1.4. Quality of life
2. Concepts of formulating indicators
  - 2.1. Key perceptions on indicators and indicator formulation
  - 2.2. Quality of life indicator formulation
  - 2.3. Quality of life indicator development
  - 2.4. Approaches of formulating quality of life indicator under different analyses
3. Basic techniques of quality of life indicator development
4. Relating researches
5. Conceptual framework of quality of life indicator and people’s participatory process

### **1. Concepts of quality of life development**

“Quality of life” or good life is a condition that not only relies on human himself but social/political system but also a part that enhances human to develop a better life under social regulation. Then, the concepts concerning quality of life development have both direct concept of quality of life and a concept of social/political system employed to explain what is a good life. This research proposes concepts on quality of life as follows:

### **1.1 Human development - HD**

Human development is an alternative of the concepts that challenges mal-development, which emphasizes economic and uses it only as an indicator of development success. It counts a human-centered and lasting development as a challenging issue. The World Summit for Social Development in 1995 has stipulated “Human Development” as a target of social development

Miles (1985: 22-24) explains the idea on human development that a target sets alternative reflecting the dynamism of development process and human’s potent rather than accepting a structure like a blue print of social order. In human development ideology we need not separate “Individual Development “ from “Social Development.” In fact, there are some differences between an individual and social but these two parts are inseparable. Though social can exist without some portions of an individual and even a number of individuals can live in some societies, human development still means the whole life development consisting of a harmonious relations between social and nature, and fully reinforcing human potential without discriminating, decreasing and destroying society and environment.

Speth (1994: 1-2) explains the concept on “lasting human development” that it is really not a new theory as a whole. What a new thing is we change from thinking on development into practice “lasting human development” can be defined as “a development that people is a center, good environment and people’s participation”. People is a center because it is a development that people are prioritized, especially the poor deserves their basic needs including self-reliance, and broadening their opportunities to have a peaceful and healthy life, being educated, and gains resources to raise their standard of living targeting to eliminate poverty. Good environment is to emphasize the necessity to restored natural resources, to raise resource product, and to protect environment locally and internationally. Participation is that a development will be successful when people have an opportunity to participate in the activity and process advantageous to their lives. Then the lasting human development prioritizes Pro-poor and Pro-nature.

To achieve such human development concept, a development process using people as a center is indispensable. To this matter, Miles (1985: 24-25) proposes that development process using people, as a center requires the following.

1. Social justice by giving every social member a chance to equally develop.

2. Justice inside a region and among nations by social have to allow and encourages social member development under the principles of social integrity (such as no exploitation of economical benefit, taking political advantage and/or cultural oppression which will impede people from society and an achievement of human development.)

3. Preset survival for future - human development of the existing generation must not endanger the next generation's survival and development - that is we have to conserve national environment and respect historical success and value which help create cultural identity.

4. Sensitive to the present - a development of next generation must not mean that the entire development must not be completely consumed by this generation. Future establishment for people is a condition of people - centered development process. Human oppression by deploying remote future as a tool is unacceptable to human development concept.

Singh (1994: 26-33) has proposed his idea on total social development, which considers people as a development center and civil society building. Practically, it should be:

1. Economy-people-centered society developed by private organizations and other concerned bodies need to dedicate itself to research, communication and exploitation of new economy for changing and adapting itself from being an activist to become an entrepreneur. Additionally, it has to adapt its organizations to be the social enterprise agencies, to create an opportunity and to train persons and agencies for changing to be the social enterprise agencies. It also includes including working with other people to establish social enterprises in a community in order to set up economy for society.

2. Society of people or civil society by holding that every one has rights and should use it to create responsibility helping all to participate in establishing civil society, dedicating oneself to making other people aware and enhance people's participation. It is to enrich ability of people organization to be the frontline of a self-reliance and lasting. This working process must be consensus, transparent and acceptable by people.

In conclusion, human development is to enrich potential within a human to change into a better direction that leads to a creation of a useful and fulfilled life. Meaning, it leads to a good quality of life, which is the absolute target of the national development. By principle, the concept of human development is to allow people the opportunity to participate in activities and process affecting their lives. In other words, the human development is a development process employing people-centered.

## **1.2 Human security concept**

Suphang Chantavanich (1997: 169-175) has studied this concept and verified that it is a concept proposed by the United Nations Development Program (UNDP) as a part of human development indicator. Society of International Development (SID) has adopted this concept and proposed it as global human security which means human on earth can survive and earn living without fear from any danger that threatens its survival, health, livelihood and happiness. The world is secured when the world resources and labor, which previously exploited by military and geopolitical security have been instead capsized into a creation of happiness for common people.

UNDP has classified an essence of human security into 7 aspects i.e. economical security, food security, health security, environmental security, personal security, community security, and political security (Wisanee Siltrakool, 1998: 22)

1. Economical security emphasizes on having enough minimum level of income, employment, independent career and an establishment of standard working condition.

2. Food security means having an opportunity to obtain food, free from starvation and malnutrition.

3. Health security emphasizes disease prevention, decreasing death rate of infant, free from AIDS, and preventing AIDS patients from social discrimination. In this case, health security should also cover the mental health.

4. Environmental security means having hygienic physical environment, clean water for consumption, and readiness to prevent or to handle disasters.

5. Personal security focuses on being free from any violence caused by state or person. The violence caused by states, which covers personalized state, and other state members who are tormented or ill - treated, war state, the violence from racial/ethnic conflict, etc. The violence caused by person is crime, violence against children and women, and suicide.

6. Community security including the protection of community and family benefits from being taken advantages such as to trapping labor or slavery labor, penile clipping among the Muslims in some African countries, and invasion of other racial or religious groups by conflict.

7. Political security namely: propagation of democratic concept to be accepted among people, condemning government using forceful suppression, violation of human rights, and prioritizing budget for social welfare rather than military affairs.

Human security concept has set minimum standard in some aspects that show the quality of human life. To obtain what responds the 4 basic needs such as a residence, food, clothes and medicine is then a partial standard of human security. Further, being educated, and protecting from being discriminated, violence, taken advantages or suppressed are also counted as human security. The concept still covers the protection of having lasting uses of natural resources and to disrespect culture and human dignity.

In conclusion, human security is an attempt to use diverse measures to achieve the goal of having good quality of life. Human security is borderless, and a mission of the global society. The world in a globalized era has extensively embraced new modern idiosyncrasy at the front door while accepted human miseries through back door. The drugs that silently devastate human life as well as pollution, which

gradually widens, come with a modernization and the influx of consumerism from one country to the others. Human then claims for the security of life not to be threatened and endangered by these threats. Security of life is part of the basic standard to achieve quality of life. It is not theorized by philosophers or invented by the wise men but from human anxieties of his daily life. For example some women fear being raped while walking alone at night in a remote street. The parents fear that their children will be persuaded to experiment the drugs. Some communities fear that water will be polluted, and so on. These people want security of their lives and a guarantee that they are free from the threats. The security of life calls for compromise and collaboration to build security of life as a whole, and not the security of an individual, a family, or social class.

### **1.3 Social development concept**

In the World Summit for Social Development organized in March, 1995 at Copenhagen, and the main essence of social development can be briefly concluded that the significance must be put on human being and environment as priority. Before that summit, the private body groups in Asia - Pacific region have called for the meeting and summarized the problems, essence and trend which is key on social development in this region that the most critical problem is poverty. In additions, there are also the problems of being impeded, discriminated and no opportunity to participate, which is mostly found among women. Other critical problems are an exploitation, the conflict between diverse racial/ethnic groups, addiction, crime, corruption, the over consumption of natural resources and the decision making by a powerful minority. (Morales, 1994: 10-14)

Social development in this scope has 3 main issues to be handled - that are decrease and abolition of poverty, employment and decrease an unemployment, and creation of social harmony, by emphasizing the social disadvantageous groups, i.e. very poor people, women, children and the juvenile, disabled persons, old people, and the minority ethnic groups (United Nation, 1992: 6- 9). As for the Asia - Pacific region development strategy, the essences can be concluded briefly ad follows:

1. Poverty abolition - This word comes from the definition of “poverty” used by the governments of many countries - which are an income of a family or of a person who is under a minimum threshold, and other indicators such as being obtained low calorie, short - life span, and an illiteracy. If these go on happening, 1/3 of the population in Asia - pacific region will be categorized in the real poor group.

2. Justice distribution is also a matter of the disadvantaged, who are women, youth, disabled persons, elders and the minority ethnic groups. These people have no opportunity and accessibility to the services, which enable them to improve their quality of life.

3. People participation - most people in this region can not leverage their quality of life because they are hindered from the decision making process and from the situation control over family, community, and the organizations.

In fact, many people propose the concepts and theories on social problems and the strategies for development such as Ensminger (1982: 25-30) has proposed a concept based on social theory for development consisting of 12 items as follows:

1. Developing people for self- development focusing on self - respect.
2. People participating in development, accepting and increasing their responsibility in solving their own problems through guidance on technological assistance and financial support of a state.
3. Encouraging change for development may come from people or from external sources.
4. Social changes on values, attitude or way of living need to be the process to encourage people’s participation.
5. Social behavior and value changes all are under the influence of economical and political changes and on the contrary they need to cause such stated changes.
6. Social development as a drive and a changing process should proposed idea and traditional act that sometimes likely challenge the existing values.
7. Social development in form of a changing process from a traditional society into a new one, has to rely on science and technology while it also has to consider what should be adopted.

8. People should know and understand that the capital for lasting social development comes from their locality in order to provide the benefit for them.

9. Decentralization and time fixed for land and institutional reforms should be the parts specified in the national policy and to support in form of multi - rural development.

10. The technologies adopted into a family and work life should be properly chosen to meet cultural values.

11. Social development will not be effective if is against the politics on account of all developments are political affairs. An active political support will be the decider of the focal point in social development.

12. The assistance of the social scholars for development relies on capability to communicate with a language understood by common people and similarly the planners and the politicians.

Such social development concept is human-oriented and the conditions involved. In the 1995 World Summit for Social Development has also stipulated a social development paradigm of people-centered. Shrivastava (1994: 1) has explained that this social development paradigm requires the people democratic participation by empowering them legal rights and to use resources responding to their needs and aspirations. The key principle of this paradigm is a thorough and discretionary understanding of people in the truth and the process of change that will help control power and resources to create a society under a principle of “Prioritizing People and Resources ”

This explanation is corresponded with Morales (1994: 10-14) that future society must be a people society. It is time that all in every community have to set their own social order. Social and human developments should not be set by the state and the market. The reason is that though both the state and the market try to show complaisance with people and goodwill to environment, they will not totally win the trust that will create social justice and the lasting human development.

From such social development concept above, an Asia - Pacific NGOs (Non Governmental Organizations) have defined “Social Development” and proposed

in the World Summit. It is “a concept of holistic development’, which refers to “a development for social justice, the lasting ecology, political participation, and the cultural existence.” In such context there are 2 concepts proposed, i.e. the concept of Civil Society, and the concept of People-centered Development (Singh, 1994: 26-33)

The Economic and Social Committee for Asia - Pacific (ESCAP, 1994: 16-18) has stipulated the vision of social development in Asia - Pacific Region till A.D.2000 and beyond that the aim of social development is a real abolition of poverty, justice distribution, and establishing people’s participation. There are 9 matters to be organized included population, health and hygiene, education, employment, residence, environment, disasters, crimes, and security of human life. An alternative for the policy and planning of social development, and the national and social development policies and plans must rest on these following hypotheses:

1. Social development is both a product and a process that people must collaborate to create acknowledgement of an individual’s target and share.

2. The quality of life improvement is an important product that can be achieved by initiating all kind of developments.

3. An attempt to create better social condition should emphasize on development techniques rather than on social welfare to arouse social needs.

4. A successful social development needs people’s purposeful participation and must have target in a development process including an individual, families, communities, groups, religious institutions, private organizations, scholars, private business, and the state organizations.

5. A development must simultaneously focus on “with human face” development, which reflects material and basic social necessities of an individual, family, community, and a social as a whole.

6. Promote multi - development on both economic and social, and a government has to specify it in the state policy and plan.

7. The government roles as a co-worker in the development should have at least 4 things - which are the delegation of leadership in most development processes to people and private sectors, operations of key development strategy to respond people’s urgent needs or what needs to happen (such as an elementary

education, health care, and care taking of a particular target group for example the poor, women and disabled persons), and establishment of a guarantee on work integration at top level in an office, socio-economic organizations in the participation of development process and supervision, and to monitor research and to evaluate the development in order to find the efficiency and effectiveness of the work on this affairs.

In conclusion, it is found that social development is indispensable for consideration, i.e. the holistic development aiming to integrate multi - dimensional development, such as abolition of poverty, a creation of justice and social participation of every group of people in society. It is for the people in the society to have an opportunity to access social services for the purpose of improving their life into equal good quality of life.

#### **1.4 Concept on quality of life development**

##### 1.4.1 Key perception of quality of life

###### 1.4.1.1 Concept

The concept of a good life in an ancient Greek time believes that a good life relies on human himself to develop his life in line of human nature, which needs a good life. Social or political system merely helps support human to develop his better life under a social rules.

The concept on “quality of life” or “good life” has appeared for ages. It is likely concluded from the gradually progressive evolution of human life which indicates that the needs for a good life or quality of life is likely taken place at the same time of the creation of human being; only in the early age there have no evident proofs. Until the ancient Greek era, there appear clearer evidences by the scholars referring to the citations of some well-known philosophers of the age, prominently are Socrates, Plato and Aristotle, who characterize people having good life as follows:

Socrates says that a good life for human being is a life that human uses his intelligence for living and to solve natural happening problems by himself

through an examination of self-recognition and higher self-improvement to become the most complete human and a being a righteous life in a social system. (Pinit Ratanakul, 1975: 35)

Plato and Aristotle have a similar idea on human good life by saying that the best life of human being depends on the best cultivating organic substance to perceive what is valuable in himself. However, human being cannot live alone, they have to live together as a society which causes a socio-political system for common act, not merely for living an ordinary life. The aim of a society is to create factors that enable the citizen to have the best life, encompassing a development of the best thing in themselves to the ultimate, which includes happiness. Then the best life must be based on good social and political grounds, which both Plato and Aristotle regard them as a statesman's duty to set a good life for people, and provide them education and training until they achieve their good lives, by themselves. Besides, they also believe that every man has freedom to have a good life as he sees and as a different individual, but a statesman still has the duty to set good life for the citizen. (Wit Wistawate, 1975: 182-195)

Apart from the ancient Greek philosophers have voiced about human good life in the afore-mentioned, the teachings of the founders of some religions such as Buddhism, Christianity and Islamism also mention about a good life according to the philosophy of each religion. In general, it will emphasize the importance on following the teachings of its own founder that agrees with and in harmony with the social condition. (Chitchai Sananseing, 1986: 19)

Quality of life or a good life of human being is an aim of living a complete and happy life. It is well accepted all along so that people in both Thai and western societies develop similar wordings or greeting, i.e. "kin dee yoo dee" or "yoo dee mee sook" in Thai, which similarly means "good life" or well-being" in English societies. Whereas "quality of life", which can be translated into Thai as "kun-na-parp cheewit" is a new word just created and used only 3 decades ago. The cause of creating this word is due to the scholars in the United States have seen the problem of surplus population increased after the end of World War II that it may cause human

being unable to properly develop themselves as human. They made an effort to disseminate their idea to the scholars and population of many countries to realize the problem and to accept the necessity that human must exist qualitatively as being a human by controlling the growing rate of population agreeing with the quantity and quality of resources used as survival factors. To this matter, the scholars give an idea that provides a curriculum and teaching on "Population Education" in various school levels. It is to furnish the people knowledge and to make them understand their own population conditions and of the world including the consequences that will happen from various forms of the population conditions, which will help people realize such necessity and cooperate in practice in the correct way. Then the word "quality of life" which is a final goal of a "Population Education" subject, has been enacted and used widely ever since. In Thailand, the word "quality of life" has also appeared in population education activity since the beginning. (Nawarat phlainoi, 1983: 97)

#### 1.4.1.2 Meaning

The word "quality of life" is popular and widely used during this 2 - 3 decades. It is always set as a final goal of a country development as we can see that the ultimate goal of every development moves towards population's quality of life. Therefore, the definition or meaning of quality of life has been explained or interpreted widely. At the beginning the definition put an importance mainly on the objective factors but later the subjective factors were taken into more consideration. The definitions given on quality of life can be classified broadly into 2 groups that are 1) the definition of quality of life is given in form of a whole body. This scholar group believes that a personal quality of life must be evaluated by one own self and the recognition of quality of life will reflex an entire picture of a recognition, goal, and value. Personal recognition of life satisfaction cannot be partially separated, but it is the definition given by considering only some dimensions. General definition prioritizes on making a living, experience, and physical and mental satisfaction. (Cantril, 1965 cited by Wari Kangjai, 1997: 11; Chaliew Buripakdi, 1980: 17; Ferran & Power, 1985: 15-24; Liu, 1975: 1; Niphon Kanthasewi, 1982: 2; Nisarath Silpadej, 1995: 14; Orem, 1985: 112; Praphar Ratanametanonada: 1989: 10; UNESCD, 1978: 89; Wallace, 1974: 6; Yenjai Laohawanich, 1980: 80) and 2) the definition of quality of

life given in multi - dimensions. The scholars in this group believe whether a person has a good quality of life or not, he will evaluate himself from various factors because they will give him more clear and correct picture than looking at a picture from one - sided factor (Chalong Baunyananda et al., 1976: 30; Flanagan, 1976 cited by Jirapa Ratanakit, 1997: 8; Padilla & Grant, 1985: 45-60; Tanaphorn Sanibutara, 1997: 16; Zhan, 1992: 795-800)

The definitions of quality of life defined by such two scholars groups can be concluded that quality of life is like a large umbrella that covers various factors concerning human life. Whether they are human, economical, social, and environmental interactions or not, most of these people see that quality of life of each person should consist of 2 parts which are: a satisfaction and a feeling recognition of factors that he has. When two parts are connected, an overall picture will emerge to identify what kind of that person's quality of life.

#### 1.4.1.3 An importance of quality of life

Quality of life is the thing that human can create and struggle to obtain it by human himself. In addition, it is also a criteria or a standard that makes people develop himself towards his desirable goal. Then quality of life has an importance to both person and social. The person and family that has quality of life, naturally has goal on making a better living in very aspect all the time such as education, career, income, health and hygiene, virtue, moral aspects, etc. In this case, he will of course have an ability to improve both himself, social, and an environment worthwhile of best benefit as well as subsiding social problems e.g. a family problem, economic problem, criminal problem, environmental and natural resource problems, etc. will be decreased or eradicated. As for the countries that the population have no quality of life, will encounter the problem of delay or failure in a country development which causes the problems against its stability, security and also the safety of a nation. Thus every country has made its full effort to improve a development of the inferior quality population to upgrade their quality of life to the standard level desired by a social in order to help person and social progress, have a comfortable life as well as a security simultaneously.

Quality of life then is important for both person and social as follows:

1) A person who has quality of life will make a living in a good way, use a fair means in response to his needs without causing any trouble with himself and the others.

2) A person who has quality of life will always have a creative development to improve and make better of himself, social, and an environment.

3) A person who has quality of life will use his intelligence, reason and a peaceful means in solving the problems.

4) A person who has quality of life will recognize the value and the importance of his own, the others, as social, and an environment. Therefore living together in a social will of course has less problem and conflict.

5) A person who has quality of life will be the base of a peaceful family and social, have a progress, stability, security, consolidation, and an order.

#### 1.4.1.4. Factors of quality of life

From the concepts on meaning and the importance of quality of life as mentioned before, we can see that quality of life or good life in which having a happy living and life satisfaction is composed of many factors that integrate harmoniously with a person life, and consequently create both physical and mental happiness. Quality of life then does not mean being only a single aspect of the factors such as money, love, residence, education, etc. or even 4 basic needs because the living of human being not only have a goal just to survive, but also to exist happily and qualitatively as a human. Therefore, it must get involved with many factors which each factor will of course have more or less different importance depending on social recognition, attitude and value, that lead to the performance of each person. However, it can be concluded broadly that quality of life consists of economical, social, political and psychological factors (Campbell, 1972: 51; Chaiwat Panjaphong & Prapharphen Suwan, 1977: 189; Kondo cited by UNESCO, 1982: 66; Liu, 1975: 12; Nipon Kantasewi, 1982: 6-7; Saisuree Juttikul, 1980: 15-18; Sharma, 1978: 11; UNESCO, 1981: 1; Yenjai Laohavanich, 1980: 50-52; Yupha Udomsak, 1983: 41- 42)

From the afore - mentioned concept analysis, it is found that most scholars have considered the factors of quality of life on a person level, but someone has also included the factors of quality of life on a social level into his consideration, To consider the factors of quality of life clearer, quality of life is here divided into 2 levels - which are: 1) the factors of quality of life on a person level and 2) the factors of quality of life on a social level.

### 1. The factors of quality of life on a person level

The factors that make a person have a good quality of life or a complete, happy life and have real satisfaction of life, consist of these following factors:

- 1.1 Physical and intelligent completeness
- 1.2 Mental and emotional completeness
- 1.3 Social and environmental completeness
- 1.4 The completeness of 4 basic needs

The factors of every aspect of quality of life have relations with each other.

### 2. The factors of quality of life on a social level

Ramesh Chanda and R.C. Sharma, the experts to UNESCO in Asia - Pacific region are the person who proposed the clear and delicate concepts on the factors of quality of life that cover both on person and family level (micro - level), and on social and nation level (macro - level) by Chanda proposed six factors relating to quality of life and Sharma proposed five factors. Both of them have almost the same opinion only Chanda adds a more component on an environment in them.

According to Chanda and Sharma, social's quality of life that has influence highly on a quality of people in social consists of 5 major factors having inter - relations as a chain as follows:

2.1 Standard of living means a level of living of people in social which has the levels or standards diversely and we can consider it from some sub - factors such as income, health, hygiene, food and nutrition, educational level, residence, service, and social welfare.

2.2 Population situation means the size or number of population, structure, density, and distribution characteristic as well as population status in a social. It is one aspect of the factors that has much influence on a living condition or the way of living of population in each social. A change of population is always caused by birth, death, migration, and increase or the growth of population, and person's status change.

2.3 Social - cultural system means the major systems existing in as social and being an important part in setting the way of living, rights, guide line of practice, as well as the thought and belief of people which make us know the patterns of population's living that they have good or inferior quality of life. These systems are ruling system, economical system, social system and value system which will dramatically influence on people's life.

2.4 Development process means the steps and approaches that as state employs to create people's well being. In general, these must be developed on the population in social together with on material major basic factors to achieve the success of a country development.

2.5 Resources are the valuable or useful things to human living and that bring them more happiness and comforts. The resources which help push quality of living onto a high or low level consist of person resource or human resource, natural resource, and man - made resource.

As for the environment factor that Chanda has proposed as another important component, means human surroundings both the living and none living things, including the progressive matters and the deterioration or pollution matters. A social having good physical environment will bring out good living physically and mentally. Similarly, a social having good social and cultural environments will also make people and social progress and have good quality of life.

In conclusion, it can be seen that there are many factors that help push quality of life of person and society onto whatever a good - bad level. However, the factors on a social level are broader and more complicated, and all of them also has influence or being the determinant of quality of life on a person level. From a review on the knowledge from various sources of this research, it is found that the

main factors affecting quality of life have the differences in some factors depending on the classification of the diverse factors of quality of life resulted from the diverse frames of study set by the researchers. However, the majority still gives an importance on hygiene and the lesser importance are education, information access, employment, family institute, and environment. In the case of the environment, it has been a point of interest and set as one of important factors of good quality of life, which agrees with the lasting development guideline.

#### 1.4.1.5 The factors that effect quality of life

1) Population Factor. It is a consideration on the result of the population condition and the population changing condition, which means size, density distribution, component structure, birth, death, population increase. The population migration will affect other conditions within a social. It has relations with quality of life such as family support condition, saving and investment condition, goods and food production for consumption, employment and labor conditions, lands for agricultural production and living, medical and public health services, education management, economical and social development, resources and environment, etc.

2) Economic Factor. It is a consideration on the production of the necessities to respond population's needs. A consideration then should be given on the careers that make products and cause incomes enabling the population to acquire the necessities of life. Economic factor is of course and extremely important one that effects upon quality of life.

3) Political Factor. Politics and government have close relations with each other and have extreme influence on population's living in a social because politics such as the participation in having rights freedom, stability, equality, etc.

4) Educational Factor. Educational factor also has an extreme influence on an improvement and development of population's quality of life since an education means every kind of processes that helps develop or improve a better mind, character and physical qualifications of human being.

5) Resource and Environment Factor. An environment means every thing around human being, both living and none - living things, including the things created by nature and man-made.

6) Moral Factor. It is a consideration on what is the determinant of human's various behaviors that can be determined by the principles of goodness/badness, right/wrong doing, virtue/vice, etc. Then it has a relation with religious principle, but this does not mean moral factor must have ground from every religious principle on "virtue" and "morals". However, morals can be classified into 1) moral knowledge 2) moral attitude 3) moral reason, and 4) moral behavior. A source of morals comes from social influence than heredity influence (Duangduen Pantumnawin, 1981: 2-4) in which it was studied by many scholars, both Thai and foreigners.

7) Social Factor. It is a consideration on other social factors besides the afore - mentioned, including social behaviors that will effect quality of life both on person and social levels. The social factors affecting quality of life are social institution. Being a body and a system of various social behaviors that each of them does its duty to serve the member's need, to survive the members and to enable a social to exist. Other important institutions in a social such as family institution, religious institution, and complementary institution, all of which also has much influence on quality of life of every member in a society

In conclusion, by overall picture, the factors affecting quality of life can be divided into 2 levels that is: personal factors such as income, employment, liability, and education and so on, and social factors such as family, social and natural environment and so on. Each will differently affect quality of life depending on social context and status of the individual.

Reviewing the concept of developing quality of life containing human development, human security, social development, and quality of life, it is found that the 4 concepts have common principles, which focus on population quality development employing integrated sciences interrelated issues of politics, economy, health and social. This concept had been widely accepted as a new paradigm or called the sustainable development believing that a development centering on human being prioritizing that human is being both the target and the process in development.

The development process based on those 4 concepts has the similar goal. It is to focus on population quality development able to change themselves to better quality of life under this idea. The development process leading to the goal will be achievable when people have opportunity to participate in activities and the process affecting their own lives. Such process allows participants to comment, exchange learning and experience among each other to learn and to understand the working process, settle consensus, and accepting each other. It is to enhance human potentials to change for the better direction. (concept of human development). It also allows participants to understand development, which does not separate individual from society. (concept of social development). It also forms the awareness of collaboration to stabilize life together because the life stability should be yielded not only from the protection of danger happening to oneself alone but it needs collaboration and assistance from other in society (concept of human security).

The Participatory Approach has been designed to this research. It agrees with the sustainable development and also with the concept of quality of life development as above mentioned. The techniques will further be discussed.

## **2. Concepts of formulating indicators**

Kriengsak Charoenwongsak (2000: 7) says that the development current in the globalization era that has a rapid change and being the era of much complex information, causes the necessity to use a tool or indicator to conclude of brief the situation information for making much more decision on various matters. The significance of using an index or indicator will increase continuously. Obtaining a qualified index can reflect the truth more accurately and precisely. Here in, the proposal on concept about the indicators and indicator development will be as follows:

### **2.1. Key perceptions on indicators and indicator formulation**

#### **2.1.1 Meaning and main characteristics of the indicators**

An indicator is something which shows the state or condition that happens or changes or reflects some aspect of a management. In Thai language, there are some words that have the similar meaning as “indicator” such as “dut-cha-nee”

“tour-chee” “tour-chee-wad” and “tour-bong-chee” etc. The meaning of and indicator is differently defined as follows:

Webster’s dictionary (1983 cited by Webster et. al., 1994: 113-145) gives the meaning of indicator that is “something which points out or points to with more or less exactness”.

Johnstone (1981: 21-22) says that an indicator means the information which points out a relative quantity or the condition or something intended to measure at sometime without indication any clear or specific condition, but indicates or reflects the picture of situation that we intend to examine broadly or to give general brief picture which may change in the future.

Burstein, Oakes and Guiton (1992: 409-418) give the meaning of indicator that is the statistics which provides information on condition, quality or management result of and education system that may be a single or composite statistics by having a standard criteria for making decision. Besides, it must also give information in accordance with the trait needed to be measured.

Office of National Education Commission (1987: 2) gave the meaning of an indicator that is something which point out condition or points to the situation that happens or changes by relying on the existing limited resources that can be judge and point out role and duty, including the management problems and obstacles of educational factors during the period and on the level needed to be measured or examined.

From such meanings in the a fore-mentioned, it can be concluded that “indicator” is the information or value that can be observed in a quantitative form, or a quantitative information used to broadly point out the condition of something to be measured or reflects a trait, including the management problems and obstacles during some period. As mention before, Some Thai words have the some meaning as “indicator” by interpreting the meaning from English words “indicator” and “index”. However, the original meanings of “indicator” and “index” are different - that is “index” means “ a variable or composite of variables employed to represent in

quantitative form of the changes in a trait” which is merely a quantitative information. As for the main characteristics of an indicator, they can be concluded into 3 points (Johnstone, 1981: 26-28) as follows:

1. Indicator is something which points out/sets in form o quantity or can be made into quantity, it is not a context narration in an interpretation of the indicator figure value and must be compared with the criterion made so that it can tell what is the meaning of high/low figure. Furthermore, an interpretation criterion of and indicator figure system made must be clear.

2. The value of an indicator is temporary, not permanent. It varies according to time and place - that is an indicator will point out a meaning by having time and place conditions as the controllers which means and indicator will point out a specific meaning in a certain period of time and in specific area or a certain area of the system wanted to be examine which may take many month or year long such as a 3 month or 5 year period indicator of any province, district, region, or country depending on duration and place use in collecting data for making such indicator.

3. Indicator is something which points out what intended to be measured in a broad form or a form of briefing picture in general than being a specific picture in sub - detail.

Pornpun Boonyaratanapun and Boonlert Leowprapai (1988: 42-43) said that the characteristic of good indicator generally consists of following qualifications:

1. Having validity - can measure what want to be measured.
2. Having sensitiveness - can show the differences though measuring situation changes a little
3. Having specification - it will change only when the situation has direct connection with the variable.
4. Having reliability - if measure the same tings whether whoever does it, the value obtained of both quantity and quality should be harmonious.

### 2.1.2 Types of indicators

There are various types of indicators depending on the criterion used to classify them. If they are classified in accordance with Johnstone's concept (1981: 30-31) the types of indicators can be classified according to the criteria into 6 methods as follows:

2.1.2.1 by the participatory variables in making indicators such as representative indicators, disaggregative indicators, and composite indicators.

2.1.2.2 by referenced such as norm referenced, criterion referenced, and self referenced.

2.1.2.3 by measurement characteristic/scale such as absolute measurement and relative measurement

2.1.2.4 by flows such as measurement of stocks and measurement of flows

2.1.2.5 by level of measurement such as measurement of overall level and measurement of distribution.

2.1.2.6 by systematic indicators such as input indicators, Process indicators, and output indicators.

Furthermore, if the indicator classification is made according classification is made according to a planner's and indicator designer's view points which regard a resource and utilization as an importance, the indicators can be classified into single indicator, compound indicator, and composite indicator. (Office of National Education Board, 1987: 8).

### 2.1.3 Indicator development

The following guidelines of indicator development are widely and popularly employed until present. It is the guideline, which emphasizes on empirical studies through a quantitative analysis. The interesting point of this view point/frame of concept is it can specify the result of measurement or clearly evaluate the indicator.

The indicator development approaches mostly focus on making decision on 4 main issues (Johnstone, 1981: 29)

1. Identifying the definitions of indicators.
2. Selecting the variables of what intended to study.
3. Setting a method to associate the variables
4. Setting variable weight of significance

Decision making in each step of such indicator development has relations with indicator value calculated in final step for an interpretation what intended to study. Then in each step, careful consideration and examination should be made to make the indicator developed and come into line with the concept of what intended to study and the objective of indicator utilization.

#### 2.1.3.1 Identifying the definitions of indicators

It is classified into 3 principles, which are: theoretical definition, empirical definition, and pragmatic definition The principle of each definition can be briefed as follows:

1) The theoretical definition of and indicators is an indicator development made by grouping the variables having relations with conditions or traits interested and sets and order or weight of importance of those variables mainly by using reasoning principle or theoretical based to synthesize the variables as an indicators.

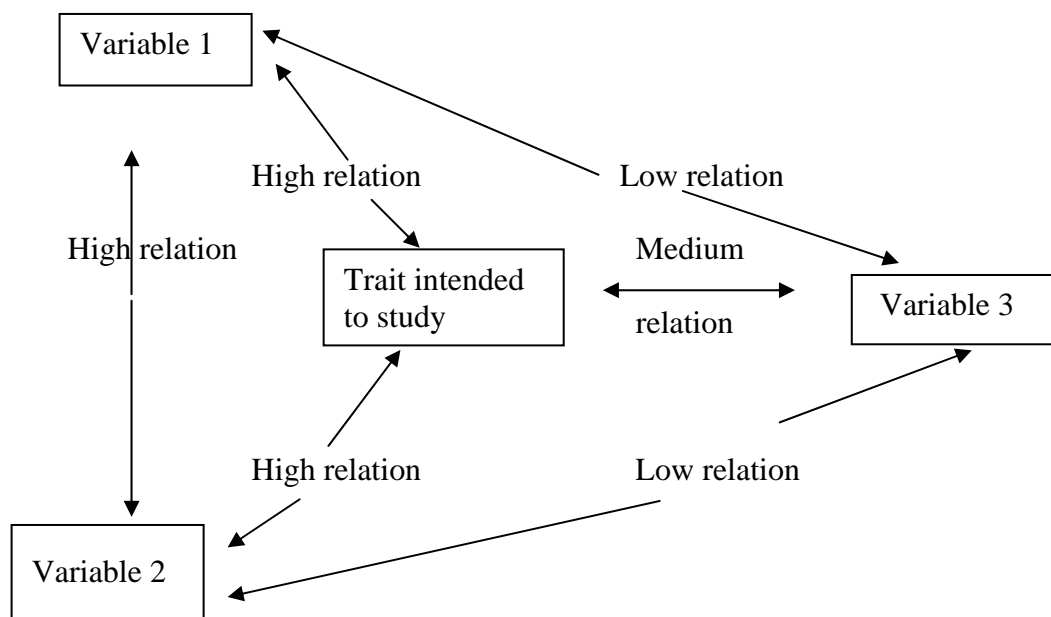
2) The empirical definition of an indicators is an indicator development made by employing the analyzed empirical data and grouping the variable relationship as well as setting weight of importance of those variables by using statistics such as factor analysis, discriminant analysis and canonical correlation analysis, etc.

3) The pragmatic definition of an indicators is an indicator development made by selecting a variable from some existing ones or composing some of the existing variables according to a developer's judgment which relies on his personal bias in selecting a variable or a trait favorably than the others. This method is regarded having more disadvantages than the first and the second ones.

### 2.1.3.2 Selecting the variables of what intended to study.

In selecting the variable which is a component of what intended to study, we have to bring together all important variable involved to make an indicators by identifying the trait of what intended to study clearly through a theory proposal, documents, or an expert judgment. This should avoid having many variables since it may cause a complex concept and difficulty in interpreting the meaning. Afterward we then select the variable that can measure each trait intended t study by choosing the variables, which cover each of different traits. In this stage, we should avoid employing the variables that aim at measuring the same trait and the variables having lots of measurement inaccuracy to make the developed indicators becomes mostly in coherence with the trait of what intended to study. In general, if two variables or more have high relation, we will not use all of them because the result will be in accurate and also uneconomic. We pick out only one variable that has no measurement inaccuracy problem and other one which have low internal relation, but tend to explain the situation or trait intended to study highly as shown in figure 1 (Wanee Gamgate, 1997: 17)

**Figure 1:** Internal relations among 3 variables and trait intended to study



From figure 1, it can be seen that variable 1 and variable 2 tend to have high relation with trait intended to study while both variables have high internal relation due to both of them may measure the similar thing which we should not select them for making an indicators. As for variable 3, it has low internal relation with variable 1 and variable 2, but has medium relation with trait intended to study. From such case, we should choose either variable 1 or variable 2 with variable 3.

In conclusion, selecting the variables by employing theoretical proposal, documents or an expert judgment, should cover each of trait of what intended to study and avoid using many variables which aim at measuring the same trait as well as the variable that has much measurement inaccuracy since they may cause complex concept and difficulty in interpreting the meaning.

2.1.3.3 Setting a method to associate the variables.

There are 2 methods - which are: Additive and Multiplicative. These two fundamental methods have different agreement as follows (Em-On Jungsiripornpakorn, 1998: 42- 44; Johnstone, 1981: 32-33)

1. An Additive has a fundamental agreement that the significance of each variable can be compensated by each other e.g. if V1 has low value, it can be compensated by high value of v2 that makes no change in value of an indicators (I) such as case 1  $V_1 = 20$ ,  $V_2 =$  is equal to case 2 when  $V_1 = 5$ ,  $V_2 = 35$ . The index made from a composition of the component variables  $V_1$  and  $V_2$  can be shown as an equation:

$$I = V_1 + V_2 \dots\dots\dots(1)$$

- When I is an indicators
- $V_1$  is value of variable 1
- $V_2$  is value of variable 2

The Additive composition of the component variables always has an objective to compare 2 or more systems that have the differences in how many units intended to study

2. A Multiplicative has a fundamental agreement that value changing of one variable bases on the other, cannot be compensated by each other- which is: the indicator developed will have high value when the value of all component variable is high value when the value of all component variable is high and the component variables must support each other to produce the value of an indicators for example from the above – mentioned example, the value of an indicators in case 1 is 400 which comes from 200 x 20, but its value in case 2 is 175 from 5 x 35. It is indicated that low value of V<sub>1</sub> in case 2 cannot be compensated by V<sub>2</sub>. The multiplicative equation of V<sub>1</sub> and V<sub>2</sub> is:

$$I = V_1 \cdot V_2 \dots\dots\dots(2)$$

The multiplicative composition of the component variables is always employed when we want to compare 2 or more systems that how many times or percents and index value of one system is higher than the other.

The difference between two above - mentioned methods leads to finding out an indicator value in form of average mean which differs in 2 aspects:

1. When associating the variables by additive, it is likely to show an indicator value by a variable arithmetic mean as the equations:

In case of the variables have equal weight of significance:

$$I = \frac{V_1 + V_2 + V_3 + \dots\dots V_n}{n} \dots\dots\dots(3)$$

In case of the variables have equal different weight of significance:

$$I = \frac{W_1 V_1 + W_2 V_2 + W_3 V_3 + \dots W_n V_n}{\Sigma W_i} \dots\dots\dots(4)$$

When n is a number of the variables  
 ΣWi is a total of significant weight of n Variables

2. When compose the variables by multiplicative, it is likely to show an indicator value by a variable geometric mean as the equations:

In case of the variables have equal weight of weight of significance:

$$I = (V_1 \cdot V_2 \cdot V_3 \dots V_n)^{1/n} \dots\dots\dots(5)$$

In case of the variables have different weight of weight of significance:

$$I = (1^{W1} \cdot 2^{W2} \cdot 3^{W3} \dots n^{Wn})^{1/n} \dots\dots\dots(6)$$

The calculation in equation (5) and (6) can be complete to find out Logarithm value as follows:

$$\log GM = \frac{\sum_{i=1}^n \log V_i}{n} \dots\dots\dots(7)$$

$$\log GM = \frac{\sum_{i=1}^n W_i \log V_i}{n} \dots\dots\dots(8)$$

However, the variable composition to make an indicators in the above - mentioned is complete in form of raw score which always has a problem about unequal units of variable measurement. To solve the problem and make the values obtained more correctly as well as able to make a meaningful comparison among them we should at first change the variable value from raw score into standard score and then balance its weight against each of variable factors of make a composite indicators which generally is Z – score (Johnstone, 1981: 31) as an equation:

$$Z = \frac{X - \bar{X}}{S.D.} \dots\dots\dots(9)$$

- When Z is standard score of the variables
- X is raw score of the variables
- $\bar{X}$  is arithmetic mean of the variables
- S.D. is standard deviation of the variables

Then an equation employed in making an indicators is:

$$I = W_1 Z_1 + W_2 Z_2 + W_3 Z_3 + \dots + W_N Z_N \quad \dots\dots\dots(10)$$

When  $I$  is a composite indicators of  $n$  variables

$W_N$  is weight of the  $n^{\text{th}}$  variable

$Z_N$  is standard score of the  $n^{\text{th}}$  variable

It is concluded that the variable composition to make an indicators generally has two methods which are additive and multiplicative. The two compositions have fundamental agreements and usage objective differently that is: Additive as fundamental agreement that the significance of each variable can be compensated by each other and its objective is always to compare 2 or more systems on what intended to study that they have the differences in how many units, but the fundamental agreement of multiplicative is value changing of the variables always employed when want to compare 2 or more systems that how many times or percents and indicator value of one system is higher than the other.

#### 2.1.3.4 Setting variable weight of significance

Setting variable weight of significance can be done in 2 ways - Equal weight of significance can be done in 2 ways - equal weight and differential weight. As for differential weight, we can use expert judgement, measure effort required from time taken or cost of any activity involving the variable, or empirical data through statistical analysis as in following details (Wanee Gamgate, 1997: 21-22):

1) Expert judgment is the judgement among the experts, who may be a researcher or planner concerned, on what wanted to study by allowing each member propose the weight of the variables and then find a conclusion by employing the mean or discussion, to reach a solution or use the questionnaire to find the percentage of people who agree with the weight of significance of each specified variable. In additions, more systematic approach may be employed in expert judgement such as Delphi technique to survey to get absolute resolution from the

experts without an encounter and then subsequently find the weight of significance of each variable from such data.

2) Measure effort required from time taken or cost of any activity involving the variables. This approach, it is suppose that if time or cost occurred in doing something for one variable higher than another variable, that variable should have higher (lesser) weight of significance than another one depends on the scope of such a thing intended to study.

3) Empirical data is an employment of statistical approach in analyzing data to set weight of significance of each variable through Factor Analysis, or Canonical Correlation Analysis, etc.

Conclusion: There is no fixed criterion in setting weight of significance of the variables that what approach is the most appropriate because it depends on some factors to be considered such as nature of the variable used to develop an indicators including nature of an indicators to be developed as well as a further utilization of the developed indicators. In practice, both theoretical principle and data analysis is always employed simultaneously that is: in a step of data collection planning to develop an indicators, theoretical principle is employed to specify the trait of what intend to study and to select the variable that can measure each trait. After having data, statistics then employed to set weight of significance of the variable.

Techniques of formulation the 4 indicators as above are popular and basic principles. They emphasize empirical evidence through qualitative analyses. Such techniques are relied complicated statistics and the analyzer needs knowledge and expertise. However, this investigation, the researcher concentrated on studying the process of PAR to identify the quality of life indicator by oneself or called “Insider’s View”. By principles of PAR, the qualitative analysis needs to be congruent among researcher team without applying complicated statistics. Therefore, the above technique might not be proper for people at fieldwork, who have not experienced the process of formulating indicators. However, revisions of the technique/ process of formulating the quality of life indicators are counted advantageous for the researcher to be as guide for action plan and knowledge for the input.

In this formulation, there has some modification by applying the techniques of Yongyuth Kajorntham and Aphisit Thamrongvarangkoon (2000) on “the Process of Developing Happiness Indicators of the Thai People”, which is also the process studies and essence related with this investigation as follows:

1. Defining /conceptualizing the indicator: With this step Yongyuth Kajorntham and Aphisit Thamrongvarangkoon (2000: 9) have applied the “Focus Group Discussion” with 10 villagers accepted to be intellectual leaders allowing them to comment/ view on happiness. This step yields conceptual framework of happiness in 8 factors.

2. Test the conceptual framework of indicators by organizing open floor for 20 groups of villagers and each group contains 10 members to freely write words/ phrases related to their own happiness and rearrange words/ phrases into the 8 factors.(Yongyuth Kajorntham and Aphisit Thamrongvarangkoon, 2000: 9)

3. Weighing within factors and between factors (weighing indicators within the factor) is to bring words/ phrases form No. 2 to be rearranged and selecting the most repetitive frequency to be the item (indicator) in each factor. Then an interview format is developed allowing villager to comment comparing between words/phrases (indicators) by dichotomous questions. Any words/ phrases gain more score get 2 marks and if they were equal get 1 mark but less get 0 mark. Any words/ phrases(indicator) of happiness get lowest total marks will be used as calculation base.

Similar technique of weighing within factors will be used with weighing between factors. (Yongyuth Kajorntham and Aphisit Thamrongvarangkoon, 2000: 24-28)

4. Values gained from weighing indicators within factors and between factors applying dichotomous questions will be developed into the happiness indicators using Weighted Multiplicative Additive model. There is an observation using this type of calculation that there is likely by more truth than the traditional weighing technique. Meaning, the formula of the traditional weighing is based on concept of the whole equal the sum of its parts. It is likely weighted each factor as equal such as applying the rating scale containing 3 scales or 5 scales. Conclusion is likely adopt the total sum of score in each item which has the same weight and it is unlikely true in the case of measuring happiness. Rationally, happiness is holistic which each part (factor) inseparably influences each other. Meaning, the whole is not

equal the sum of its parts. Yongyuth Kajorntham and Aphisit Thamrongvarangkoon develop calculation technique to reduce weakness of the traditional method by finding the value of the weight gained from empirical evidence applying dichotomous questions. Results of calculating index by weighing technique applying dichotomous questions, when being compared with other techniques such as Visual Analog, it is found relevant but it is better on clarity of tangible test.

Therefore, the researcher select the techniques of weighing developed by Yongyuth Kajorntham and Aphisit Thamrongvarangkoon on the basis that it is unlikely too complicated and tangibly evident.

#### 2.1.4 An examination of an indicator quality

In an indicator development process, what should be considered and given importance in one more step is quality an examination of an indicators consisting of two broad principles - which are: a quality examination under a frame of theoretical concept and an examination by statistics. However, an examination by statistics is only an evidence or and empirical data that supports quality of an indicators. The real importance of a examination quality of an indicators is mainly at the frame of a developer's theoretical concept since if a development starts from a frame of invalid theoretical concept, statistical technique will not produce better quality of the development.

From the principle of indicator development in the above - mentioned, We can manage to control and examine quality of an indicators in each step as follows:

2.1.4.1 In quality examination on the variables and variable selection, an indicator developer must have clear and qualified frame of theoretical concept, correct pragmatic definition in a accordance with the target on utilization of an indicators, including with characteristic, type and level of measurement, a frame of concept on selecting the variables, and model making or the demonstration of relations among the variables. All of these tings will help the data obtained have quality and have indicators of more internal validity. There are at least 3 sources of influence which will decrease internal validity if a management have no examination

or done carelessly (Wanee Gamgate, 1996: 23) such as: the coverage of variable measurement - that is partial measurement of the variables employed is not a good representative of concept intended to study. Additionally, there have some important issues to be examined to decrease measurement inaccuracy and to get reliable data such as a harmony between defined pragmatic definition and an employment of pragmatic definition in variable measurement, data collecting process, tool and too quality, data making process, and consideration of the independence of various concepts that have some joint variables to get a more validity indicators.

2.1.4.2 A quality examination on a variable composition. Since an approach of a variable composition or synthesis has some methods and each method differs from the others in utilization of its condition and appropriation, the study and consideration of these details are important in making indicators having more quality in accordance with a target of employment.

2.1.4.3 A variable examination. Though there has no fixed criterion in setting weight of significance of the variables, selection an approach suitable for a variable nature and utilization target is an issue to be considered for an examination.

#### 2.1.5 Concept on an indicator development on various levels

Under the national planning system, there still has sub - system such as a provincial level or local level which is divided by holding an area as a criterion. At present, more effort is made to distribute power from the central to local offices. An indicator development employed to explain what intended to study in local level is then important increasingly to respond such policy on an administration planning, a search of weaknesses, and the solution of local level problems whether it is an Input indicators, Process indicators, or output indicators.

Johnstone (1981: 52) said that if there is a careful management, and employment of a local area as an analytical unit will have an advantage on statistical data since there has a narrower geographical area than a national level management, which is easy to collect data, data dealing, and get the more valid and reliable data.

It is concluded that a developed indicators will be useful for a user whether he is an administrator, planner, planning researcher, or common people depending on the objective and target wanted to develop and an employment of that indicator. However, the developed indicators will be rally useful as the fore-mentioned when it is a qualified/valid indicator through an appropriate development process.

As mentioned above, the guideline of an indicator development proposed is the one that employed widely, focuses on an empirical proof though a quantitative analysis which able to specify the result of measurement or clearly evaluate in accordance with an indicators. However, there have at present the proposals from the scholars and developers about the approaches and guidelines of an indicator development diversely from this, which be mentioned later.

## **2.2. Quality of life indicator formulation**

An indicator development is always conducted together with social development because quality of life is a component or indicators of social development, we always find the researches specifying both developments at the same time.

The revision of the result of indicator development in this Chapter is the conclusion collected from the past study report (Anuchart Puangsumlee and Orathai Aj-um, Eds., 1998; Sumalee Suntiphonwut et al., 1998; Yongyuth Kajorntham and Aphisit Thamrongvarangkoon, 2000) which will be partially proposed as follows:

### **2.2.1 Types of quality of life indicators**

Quality of life and social indicators are classified are grouped diversely which Miles (1985 cited.by Supang Chantavanich and Wisanee Siltragool, 1998: 60) has classified them into 4 types as follows:

2.2.1.1 Direct and by - product data is statistical data or social reports gathered by various offices such as administrative data, educational personnel data, number of students, examination score, etc. Though they are added by the others, the existing data is regarded as by-product data which they can be employed at the

same time as direct data because some of them are the result from social survey that has been planned in advance.

2.2.1.2 Input and output indicators. Both indicators have connection with by-product and direct data - that is: the statistics on important social activities of many offices is regarded as by-product administrative data such as administrative statistics that explains about financial resource, personnel, activity and almost every matter except social problem. When these statistics is applied to measure welfare issue, these data will become the feeder indicators. As for a product indicator, it involves human development in which almost every social activity needs various feeders to produce the product.

2.2.1.3 Objective and subjective indicators. Social indicator data are mostly the objective measures including the reports on behavior, environment and anatomy detail. These data get from the reliable and well-trained observers. On the contrary, subjective measures depend on the reports on the essence, an evaluation, a narration as one feels, emotion and individual intention, which always being the data got from an interview and survey research.

2.2.1.4 System and aggregated indicators. Global indicators is a report about human being and environment as a whole than being data statistics, condition of a group, or an individual - that is: it is the data about social essence but aggregated individual indicators is mostly a simple individual statistics such as a composite data (marriage, divorce, etc. or a mean of income from an employment) and some data is a ratio (such as death rate classified by age) or a distribution (for example an unequal of being land owner), etc.

## 2.2.2 Making a quality of life indicators

Making a social indicator can be classified into 3 main approaches which each one reflects a scope and meaning of "an indicators". These 3 approaches have been employed for a long time and have tendency to be used in the future. (UNESCO, 1980 cited by Supang Chantavanich and Wisanee Siltrakool, 1998: 63)

2.2.2.1 Statistical approach is an indicator development, which the United Nations make as "Guidelines". The scopes and characteristics of these

“Guidelines” enable us to see the groups and issues which are in social interest and brought into use as an example of social indicators for many countries. As for this series of an indicators, the United Nations statistical office (UNSO) together with the national statistical offices of many countries have made a frame work for a development and a mixture o social and population statistics which we can say that it is the beginning of an indicator development.

2.2.2.2 An analytical approach. This approach is likely to be more difficult than the first one. In the researches of private organizations and the scholars, the concept about social indicators is broader than UNSO’s Guidelines and they are not limited only on: well – being” but also cover the data on changing social structure, behavior and social indicator process. This approach will be as a key, tactic, or composite indicators of needed data than an indicator making and proposal. It has the broadest scope, theoretical concept and an analysis, and aims to employ data for searching out a cause of prediction and making a social reproduction.

2.2.2.3 The quality of life approach. When we talk about an approach of office of Economic Commission for Development (OECD). The difference between them is OECD gives an interest in making definition of social issues that reflect an aspiration and an interest, and places importance on an acceptable fundamental level of well being. OECD also employed UNSO’s guidelines in developing an indicators by selecting the issues and indicators which reflect an individual well - being including careful select the similarity and difference of an indicators. From an example of the Philippines indicators for measuring quality of life, it indicates an effort to measure social change during a period of many gears and has a groups consisting of 30 indicators and 19 sub - indicators.

### **2.3. Quality of life indicator development**

The development of a quality of life indicators has begun since 1960 by a dissatisfactory movement against the limitation of an economical indicators, especially in bringing Gross Domestic Product (GDP) to evaluate a development and a development policy setting. GDP causes an in accurate development picture since having high income does not mean that a development will occur. Human

development may be well - developed in some social though GDP is not high (Amara Pongsapit, 2000: 16; Chanin Charoengul, 1991: 12) Later, an interest was given in human development by developing an indicator index. In human development, it also consider on what human lacks and then Human Development Index (HDI) of 130 countries all over the world was made depending on 3 main factors-which are: 1) having long average age and good health 2) having knowledge or education 3) having an accessibility to the resources necessary for fairly well-being. However, the proposal on Human development index still has an argument that whether the 3 factors are truly very important or not, and whether any other factors not taking into consideration. (Amara Pongsapit, 2000: 17)

Since 1970, there has an international social indicator development under a management of the organization for Economic Cooperation and Development - OECD. The emphatic point of social indicators of OECD is well - being by measuring from 8 factors-which are: 1) health 2) a development of person through learning 3) an employment and quality of working life 4) time and the use of free time 5) the need of goods and services 6) physical environment 7) personal security and justice process, and 8) a social opportunity and social participation. However, social indicators of OECD has been criticized that rather being too much a theory and abstract. The Japanese scholars then improved these social indicators and called it “New Social Indicator (NSI)” and publicized in printing in 1987. It is believed that NSI can evaluate people’s life more precisely than the original one. NSI is an evaluation on 8 aspects of both objective and subjective indicators which consist of 8 factors such as 1) health aspect consisting of an average age, high, weight, life expectation , death rate of the baby, rate of committing suicide, and rate of survival 2) environment and safety consisting of the safety of life and property from the accident, theft, and pollution 3) economic aspect which is composed of an income, social insurance, saving money and a donation for social 4) a family life which are number o members in a family, time consumption in a family, number of rooms in a house, and size of a house 5) working life e.g. time taken in working, unemployment and working condition 6) Education e.g. level of education 7) community participation that are social activity, community activity, time employed in doing activity, being a volunteer and

participation in various groups, and 8) learning and cultural activities which are newspaper and book reading, utilization of the library, time employment for private affair and hobby (United Nations, 1998: 69-72)

In 1990, ESCAP held the conference on “quality of life” in Bangkok comprising of the representatives from Japan, Korea, Philippines, Thailand, India, Australia, and the United states. The meeting had an agreement that the principle on looking at quality of life has to emphasize on equality, justice, participation of people, and human rights, and they as well stipulated the quality of life indicators which consist of 6 factors such as 1) health aspect consisting of an average age, illness, death, nutrition, and disaster 2) a proud life which are literacy, being educated in education system, learning in whole life, cultural accession, and a valuable life 3) working life consists of an employment condition 4) physical environment e.g. a residence, communication, public services, and natural environment 5) family life e.g. children, juvenile, the old age person, and family violence, and 6) community life which are social participation, political participation, rights claim, and physical harassment. It can be seen that this series of the indicators, reflect, more life and community conditions, but there has no agreement on a data collection approach which from now on is what to be developed. (Amara Pongsapit, 2000: 19)

The development of quality of life and social indicators has been done over 40 years, but it still have the problems in which some people try to solve them by giving a proposal that in the development, people must be a person who sets his own target, not let other people do it for him. It is a development that looks back into people himself, and seeks for an intelligence of local people instead of importing intelligence from foreign countries (Supang Chantavanich an Wisanee Siltrakool, 1996: 168)

The development of quality of life indicators in Thailand occurs after a social development which is a concept of being a process that leads to social change to create people’s well-being on food, residence, education, health and sanitation, having an employment and enough income for living including social equality and justice. The indicator of social condition was firstly made in 1975 by the Commission for

National Economic and Social Development to analyze the scholars data. Until 1977, Social development concept has been made in rural development, combination development and rural employment. From making judgment that the country has an economic growth, GDP increases, but and income distribution is unfair, people in rural countries who are the majority are still poor. (Supang Chantavanich and Wannee Thaiyanonda, 1996: 182)

In 1980, the core committees from 4 main ministries such as Interior Ministry, Agriculture and Cooperatives Ministry, Education Ministry and Public Health Ministry were set up to stipulate policy and guidelines for Thai social development and making Judgment that what a “quality of life” of Thai people should be (Tonglao Dejthai, 1991: 9) During 1981–1982, the Commission for National Rural Development was established in the National Economic and Social Development Plan 5 to stipulate “indicators” by having clear objective that each indicators must have the following criteria: 1) being the quantitative nature of measurement 2) clearly indicate community problems 3) enable to collect data, and 4) having possibility of setting solution guidelines. Such criteria led to the stipulation of “basic necessity” in 1984 (Tonglao Dejthai, 1991: 9) which regarded as an important quality of life indicators of Thai people in coherence with a living condition of rural people.

At the beginning the basic necessity criterion in measuring quality of life of Thai people consists of 8 categories with 32 indicators-that are: 1) people in a family have nourishing food 2) people have appropriate residence and environment 3) people have an opportunity to access to basic social services necessarily for earning their living and life 4) people have safety in life and property 5) people can produce the product of food efficiently 6) a family can control a period of giving birth and the number of children as desire 7) people can participate in a development for their living and set their community way of life and 8) people have better mental development (Task Team of Improving and Developing Quality of Life Indicators of Rural and Urban People, 2534: 2) Later there had an improvement on basic necessity criterion in the National Economic and Social Development Plan 7 to improve Thai quality of life comprising of 9 categories, 37 indicators by adding a category on mutual conscience of natural resource and environmental conservation which is in line with an enduring

development that focuses on an environmental problem and has some diverse criteria between rural area and urban area judged by the differences of the residence and forms of living. In 1997, the basic necessity criterion was adjusted into 8 categories, 39 indicators to collect data during an employment of the National Economic and Social Development Plan 8. As for the National Economic and Social Development Plan 9 which has been employed since 2002, is composed of categories, 37 indicators. The adjustment of basic necessity criterion during the eighth and ninth Development Plan periods is merely a grouping of the new indicators that have no difference from the criterion employed in the National Economic and Social Development Plan 7.

The development of quality of life indicators of people in rural countries has been given an importance since the employment of the National Economic and Social Development Plan 6 as we can see it from Gen. Prem Tinasulanontha's speech in which a rural development was focused that "To make the agriculturists in rural countries have more income, learn new appropriate things, have strong health, free from the sufferings, participate in solving their own problems from the beginning, take part in making a strong democratic system and become self-reliance" (Supang chantavanich and Wannee Thaiyanonda, 1996: 184) The National Economic and Social Development Plan 7 has clear concept to develop human resource, quality of life and environment. The National Economic and Social Development Plan 8 has stipulated human development as a single objective of the development and the Commission for National Economic Social Development has developed various aspects of human and quality of life development. However, there still has an argument about the concept and content of making quality of life indicators which at present there are many groups especially the group of the scholars and developers who work together as a staff under a leadership of Paibool Watanasiritum as the president of Rural Development Foundation of Thailand (Anuchart Puangsumlee and Orathai Aj-um, Eds., 1998: 3) who is interested in searching for the quality of life and social indicators has proposed that the perspective on quality of life of the scholars should be changed to become the perspective of people themselves based on the principle and guidelines that reflect the potentiality and conscience of a local community of a community to be measured directly.

It can say that concept on quality of life development comes from the dissatisfactory movement against the development concept that focuses on economic development as an ultimate goal. The movement has begun in about 1960 by the scholars from various fields have proposed a development concept on a recognition of making human's better quality of life. However, the quality of life development now still has a limitation that the quality of life development now still has a limitation that the meaning of quality of life is mostly dubious and being abstract which will bring poor effect on searching an appropriate approach for measuring quality of life.

In making choices to measure the essences involving quality of life, the concerned study and research have been conducted dually in 2 aspects which as: a study to develop social indicator and a study to develop human development index. Both of the studies have directions in coherence with the concept of an enduring development in which its essence covers 3 aspects of a component relations system such as human, social and nature. Therefore, the indicator development of people's quality of life in line with the concept of an enduring development must cover the 3 aspects as well.

Besides the aim of a development evolved from making economic growth to raise a level of human quality of life, another factor that effects the search tool/quality of life, measurement approach is a development guideline varying from the old concept process in which a development is looked at separately, to become a development in new concept process that gives an importance on a co-thinking process by learning and working together, making joint effort and compromise. This process causes a concept in seeking a tool for quality of life measurement by allowing people to have more participation in a development which brings into two - way concept in quality of life development under the diverse perspectives of an analysis.

#### **2.4. Approaches of formulating quality of life indicator under different analyses**

From an evolution of the quality of life development in the past, finally the suggestions are raised by both the scholars and developers who call for having the quality of life development in people's perspectives, the development guidelines of both social indicator and development index, including a present indicator and

development of quality of life, then have two main different ways of development with diverse targets (Office of Commission for Economic and Social Development, 2003: 50) as follows:

2.4.1 The first is a guideline targeting at an overall picture of the degree of a development and people's well-being during a period of time that the past indicator development unable to reflect and adequate truth, consequently it is needed to be added other broad dimensions such as social and environmental dimensions as well as a more complete participation than it used to be. Therefore, a data process is an important condition of precision and an indicator development must also be able to compose with the foreign ones.

2.4.2 The second is an indicator development in form of new pattern that people set or indicate their own "good quality of life" or "desirable well-being" or in the other word, people in each group and each area set an indicators or index of their own, not necessary to compare with other indicators since the weight and significance given to the quality of life indicators in each area are different. This way will create a learning process and a development that help encouraging a social gives more attention on its own surrounding and bring forth a creative power of people in society turns to cooperate in their social development.

Comparing the two guidelines of an indicator development with each other, it can be seen that the first one which may be called "tight perspective development" used wildly in the old time, employs the development process in item 2.1.3 as a guideline to emphasize on Empirical process through the quantitative analysis/development. Though this approach has an interesting point at being enable to measure clearly of what wanted to be measured, it still has a major weakness due to:

- Being a segmentation analysis to specify the result quantitatively in which always lacks of a consideration on other factors involved.
- Incompleteness of data such as unable to indicate an evaluation result/a measurement of what cause by mutual action of some factors simultaneously.
- The limitation of public participation due to the difficulty and complexity of a research procedure and the language used in communication.

As for the second guideline, it is an indicator development which has broad perspective/frame of concept in analyzing what to be measured than the first one that is: being a perspective looking at multi-factors to be analyzed dynamically under the diverse structures and frameworks of environment, economic and social in each area, each community and each group of people. In additions, it also give and importance on local intellectual, local findings and people's and people's participation as a main source of data that helps reflect a complex and dynamic interaction of the factors studied.

Chris Roche (1999 cited by Dejrat Sookgumnurd et al., 2002: 41-42) has shown the differences of diverse indicator properties from the analytical perspectives in both guidelines as in Table 1:

**Table 1:** Characteristics of the Indicators from the Diverse Analytical Perspectives.

Characteristics of SMART indicators from an analytical perspective in the first guideline	Characteristics of SPICED indicators from an analytical perspective in the second guideline
<p><b>S = Specific</b> An indicator must reflect what the structure wants to change or cause direct effect by trying to avoid making any affect caused by other complementary factors.</p>	<p><b>S = Subjective</b> An indicator must reflect from an experience or attitude of data provider to show the broad and diverse perspective on and affect of a program.</p>
<p><b>M = Measurable and unambiguous</b> An indicators must be clearly specified, make clear measurement, and able to compare between group and stocks.</p>	<p><b>P = Participatory</b> An indicator must be development from an affected area by the program, including a participation of people involving the program.</p>
<p><b>A = Attainable and sensitive</b> An indicators should reflect in what can be changed by a program management and enable to reflect sensitiveness resulted by the changes in traits of a program.</p>	<p><b>I = Interpret and communicable</b> Enable to explain or communicate the meaning of an indicator in accordance with the groups' viewpoints for mutual communication.</p>
<p><b>R= Relevant and easy to collect</b> Enable to collect easily with relevant time and capital and reflect and affect caused by the program.</p>	<p><b>C = Cross – check and compose</b> Data accuracy must be cross – checked by the comparison among diverse among diverse index, data provider, an approach and assessor.</p>
<p><b>T = Time bound</b> An indicators should indicate or explain the time bound.</p>	<p><b>E = Empowering</b> A process on fixing an indicators and evaluation must be conducted in a direction that empower 5 people by enhancing the groups of people realize the changes happen to themselves.</p>
	<p><b>D = Diverse and disaggregate</b> An effort should be made in seeking indicator diversity in each group of population such as sex or age disaggregation and the record should be done in form of showing diversity occurs during each stock.</p>

**Source:** Adapted from Roche C., **Impact Assessment for Development Agency: Learning to Value Change**. UK: An Oxfam Publication. (cited by Dejrat Sookgumnurd et al., 2002. **Health Impact Assessment for Public Policy Making for Health: Concept, Guidelines and Practice**. Nonthaburi: Research Institute for Public Health.)

Besides qualities of indicators are different caused by analytical approaches as in Table 1. When they were compared on target, formulator/ definer including utilization of the indicator developed. There are differences (Table 2), i.e.

The Tight Perspective approach is aimed to develop indicators to measure level of development and the well being of people in general. They are the national index and used in comparing the level of development with foreign countries. The developer/ the definer is involved with workplace for development for the benefit of planning to develop the country.

Whereas the Broad Perspective approach is aimed to measure the level of development and the well being of specific group, location. Its development process is used as tool for learning, and defining people perspectives for the benefits of evaluating community conditions

**Table 2:** Comparison of Approaches in Formulating Quality of Life Indicators

Issues	Approach 1	Approach 2
Target	<ul style="list-style-type: none"> <li>- the national index reflect level condition of development and well being of people in general</li> <li>- Comparing the level of development with foreign countries.</li> </ul>	<ul style="list-style-type: none"> <li>- measure the level of development and the well being of specific group/location</li> <li>- indicator development process is used as tool for learning</li> </ul>
Developer/definer	<ul style="list-style-type: none"> <li>- State agencies responsible for development</li> </ul>	<ul style="list-style-type: none"> <li>- People</li> </ul>
Utilization	<ul style="list-style-type: none"> <li>- For the national development planning</li> </ul>	<ul style="list-style-type: none"> <li>- For evaluation of community conditions</li> </ul>

Then, an indicator development as being a tool/ an assessment under the diverse perspectives/frames of concept, it is necessary for an assessor and a partner to understand well in the objective and property of an indicators under each perspective to enable them employ the index relevant to an analysis or an assessment as well as to communicate efficiently with other partners.

In this research, the researcher employs the guidelines of an indicator development of people's quality of life according to the second one since it empowers the people by enhancing various groups of people realize the changes happen to themselves without expecting any statistical accuracy. However, in the principle of an indicator development in line with the second guideline, data accuracy must be checked by the researcher through making a comparison among the diverse life indexes, approaches, and data providers (The details will be given in Chapter III).

### **3. Basic techniques of quality of life indicator development**

It has been known that the past country development under the old concept process of a separative development concept, was completely fail in all matters resulting in causing a new paradigm development concept that not solely relies on a cadmic knowledge of the experts but also depends on an interactive learning through action which creates "Intellect" well enough to win the hardness in developing a social.

Hence, new development paradigm is "a conception and practice process that every sector joins to learn, work and put effort together, not against one another". (Sunthorn Mongkolin, 1998: 7)

Many efforts have been made to find the methods in encouraging people have co-learning through-action until various forms of tools are created such as Acton Research, Participatory Action Research, Participatory Rural Appraisal, etc. In this study, only the relevant issues are proposed as follows:

#### **3.1 Participatory Action Research (PAR)**

Participatory Action Research or PAR is a research that wanting to cause some result from the research process (Social Research Institute, Chulalongkorn University, no date: 15)

##### **3.1.1 Meaning**

Participatory Action Research or PAR is a research seeking for knowledge in accordance with the principles of original scientific research merely having a difference that PAR has an objective aiming at solving development

problem. It is a research done by community participation in which the colleagues both in research process and having partnership make use of the research. (Kamol Sudprasert, 1994: 8)

Participatory Action Research means a democratic process that numbers of people bring knowledge from their own research and work to improve, amend or change their social. (Puntip Ramasut, 1997: 31)

Then Participatory Action Research is a research model that changes sale of the population who are subject to be researched become the research participants by their participation must be existed in whole process of the research.

### 3.1.2 10 prominent characteristics of PAR

Participatory Action Research has 10 prominent characteristics (Guerrero, 1995 cited by Puntip Ramasut, 1997: 35-39) as follows:

3.1.2.1 Produce knowledge by a combination between an scholars knowledge and common people knowledge is like two rivers confluence to form a bigger single river. Foam will be produced at the confluent point as being a new Knowledge. It is co-generative learning which gradually expands from partial participation till become full participation between the native and the researcher and produces mutual feeling, combines theory with practice to create new knowledge.

3.1.2.2 The knowledge patterns got from PAR in an interactive and interdisciplinary forms are the way of life, the needs that will enhance knowledge for one self through new approach, an intention that discovering new thing means an opening a new way. Being interdisciplinary does not come from learning, but from practice. It is the result of continual practice and working systematically with other people.

3.1.2.3 Merely understand each other is not just enough, PAR also developed an understanding into a concrete form, being an idea reflection and direct act which is like review or reflect one's own idea and then bring into direct act.

3.1.2.4 Knowledge direct act or bringing down knowledge into practical in which a locality's real and important problem is emphasized can be compare to giving education to the adults in a locality with non-theory knowledge but

focus on making an analysis and comment. Regarding to this idea, Wignaraja (1991, cited by Puntip Ramasut, 1997: 36) pointed out that while official institutes became weak and had less importance and the aristocratic structure was lost or cut off its involvement with majority of the poor, PAR will be a grass root that give people at the rim of development process an opportunity to exist and develop their roles.

3.1.2.5 PAR is an inclusive process that utilizes resources effectively and effectiveness by creating knowledge from the existing means and knowledge without trying to separate or limit any matter. Every idea will be got and attention and accepted. It give an opportunity of learning for all which is PAR's extraordinary characteristic.

3.1.2.6 PAR process is a substance, has life and organic. It is a non-limit continuous process. It is and open form that cannot set any plan in advance, cannot give any advanced scientific fare cast, a changing can occur all the time along with the flow of researchers participate in a community and slides on the fluctuation of situation without having any fixed theory, any scientific rule or any ideology as a from.

PAR is a proposal on changing focusing point from the conclusion and research result to and emphasis instead on process and scope. It is necessary for outside researcher to have knowledge of and tie with the villagers as well as their interest otherwise he cannot place any trust in them. In PAR, an outside researcher is merely a facilitator than being a controller or creator of a research project. (Forester & Ward, 1997 cited by Puntip Ramasut , 1997: 38)

3.1.2.7 Self - awareness developed by PAR will help people have self-confidence, develop people's self-concept that even the poor can have rights to express option (Mcquire, 1987 cited by Puntip Ramasut, 1997: 38), focuses PAR target to improve re-humanizing which means a person finds out self-internal freedom, learns to listen and share idea, learns to make self - release from fear, releases from the conclusion set before hand and from advance rule's and law verdicts, which not only causes freedom but also enables person have power to enriches his life and the others. This power will bring success to every person who struggles for better life. If person learns to evaluate the value of his experience, he will have a confidence and dare to give value to the others'experience. Giving honour to each other will be

created through cooperation process, care taking on each other, love and concern. (Reason, 1988 cited by Puntip Ramasut, 1997: 38) Then PAR researcher has to quit worrying about scientific process that gives only one answer but he should think about an establishment of good feeling in people whom he works with to make them know and reflex themselves by accepting any critique made directly on them. This is because if one knows oneself, it will make him accept other people, do and think in group than by himself - that is person and group will support each other in learning and cooperating to change their social.

3.1.2.8 Community ecological society is the most important source which person can link his past, present and future together in planning to control his goal of life by PAR helps building ecological society in which people in a community rely on each other, abolish an aristocratic system, and re-establish a harmony between human and nature and among humans. Ecological society access only when society members have relations among them in form of equal democracy.

3.1.2.9 PAR is future oriented. So PAR researcher has to know the approaches displayed for community learning such as a management without having advance finished or fixed program, creating community's self - dependence, making guidelines for acting and non - exist practical means, reviewing on changing and improving the system in which he a member and developing and example of a structure or image that continue to be a desirable future, etc.

3.1.2.10 PAR is optimistic. On the ground of emancipation concept which believes that every manage the matters in his social, PAR is an approach to enhance a person's this potential.

PAR believes that human freedom is the most importance and human has rights as well as power to seek freedom for himself through self-emancipation. Real emancipation comes from all people's participation which will lead to an establishment of new social that every one takes part in building by using his own knowledge. (Puntip Ramasut, 1997: 39)

### 3.2.3 The reason why Participatory Action Research is necessary

In the familiar research process whether a quantitative or qualitative research, a researcher plays leading role on initiating the research and is responsible

for the whole research process beginning from making choice and setting problem being researched, planning and conducting research until making use of its result under his consideration under his consideration. In such whole process, the sampling person or community of each research never has a chance or any participation to express idea or give recognition of it. It is one – sided response to a researcher's curiosity. So it is always found that the result of research does not give full advantage and the research is merely a review document for the others who will do next research or if it is used to set policy, make plan or solve the problem, an outcome will correspond to the thinking and judgement so a researcher or user who excludes the idea, need, and interest of people being researched from his consideration. (Puntip Ramasut, 1997: 32)

Participatory Action Research then originated from a concept that research is a social activity using social resource for the study. It is a social property which aims at serving social. Hence it should think of the maximum benefit a social can gain, especially social is a unit of that research and providing community the maximum benefit from a research must be done by making that research become a research for development or Research and Development (R & D) in which the development and partnership have to go along with each other since the development must benefit each people and everyone in social. Then all people in social has to have free share in democratic way in every step of the development process.(Puntip Ramasut, 1997: 33)

An advantage of PAR is a proposal of changing key point from the conclusion and research result to an emphasis instead on process and scope. So a researcher must have knowledge of and ties with the villagers as well as their interest of create trust in them. (Forest & Ward, 1992 cited by Puntip Ramasut, 1997: 38)

#### 3.1.4 Step of Participatory Action Research (PAR)

There are 5 steps in PAR (Parichart Valaisatien et al., 2000: 111-112)

3.1.4.1 Before investigation, which is the selection of community, integrating the researcher and the community, pilot survey on the community, and disseminating concept of PAR to the community.

3.1.4.2 During investigation, which is problem analyses with the community, section and training the local researchers, designing research techniques and data collection, data analyses, and presentation data to community.

3.1.4.3 During setting plan which is setting project or activities.

3.1.4.4 During implementation

3.1.4.5 Follow-up and evaluation of key activity in PAR

Follow-up and evaluation are vital step in PAR. Therefore, it needs revision/ clears understanding technique of evaluation used in PAR as follows:

### 3.1.5 The Participatory Evaluation

Activity evaluation is indispensable and cannot be disregarded in the process of PAR. Generally, evaluation is conducted with the achievement of the project but this investigation is not meant to evaluate or to measure quality life of the target group but to develop the equality of life indicators based on the perspectives of people themselves. The process of developing the equality of life indicators as a tool to create learning among people. This evaluation is referred to estimation /analysis of people potentials in developing indicators aiming to see learning / learning process stemmed from developing the equality of life indicators

#### 1. Methods of Participatory Evaluation

It is generally understood that the Participatory Evaluation has applied a qualitative technique and informal data collection. Actually, there are many techniques applicable in both quantitative and qualitative techniques, fieldwork data collection, primary sources, group conversation, discussion, and different movements. Further, the Participatory Evaluation is divided its roles for participants. (Parichart Valaisatien et al., 2000: 563-564). It contains 2 techniques as follows:

1) By targeted people in the project- it is conducted by the target people in the project who directly use the advantages from the project. This technique allows people form a group work, help them to understand situation and enhance effectiveness in solving their own problem.

2) People share evaluation with outsiders- this technique operates by allowing representative of people to participate of the evaluation team who are

outsiders. Such participation has limitation that people and scholar have different in education and technical terms used by scholars might confuse people. Both parties have to considerably adapt to each other.

## 2. Techniques of Participatory Evaluation

Jackson (1998 cited by Parichart Valaisatien et al., 2000: 571-574) proposes techniques and tool for the Participatory Evaluation, which are:

- Common Technique, which are interviewing key informants, interview by open-ended questions, organize meeting, group discussion and case study.
- Meeting Technique, which is to effectively enhance atmosphere of shared learning. It fits meeting participated by different parties.
- Fieldwork Technique, which can use different types of meeting and can use technique of participatory observation significantly the sub group discussion.
- Self-evaluation Technique, which can used both different types of meeting and PRA but focusing on community improvements.
- Cultural Technique, which might use traditional communication, custom-culture or different media.

## 3. Evaluating Effectiveness

Social Research Institute, Chulalongkorn University (2001: 72-73) studies developing the quality of life indicators and social development in 8 different communities and evaluating people potentials in developing the quality of life indicators identifying people potentials into 3 levels, i.e.

3.1 People have adequate potentials, who are ready and understand the study process and accept to implement the indicators.

3.2 People are developing potentials, which means they are not thoroughly understand the study process but pleased to cooperate, and

3.3 People do not understand the study process, which means they do not accept the process of developing the quality of life indicators that how are they useful to their community and for themselves.

This research evaluation has used people-focused applying the self-evaluation technique to evaluate/analyze people potentials in developing the quality

of life indicators. Aim is to see learning/learning process happened from developing the quality of life indicators among community applying the 3 criteria in classifying levels of potentials of Social Research Institute, Chulalongkorn University (2001: 72-73) as above.

In conclusion, it is observed that PAR technique helps people to assemble and effectively work. It is dynamic in both structure and operation relying on condition of leveraging capacity of people with data system, which will help people to analyze community problems and for further development. Key of this investigation is the community management and people participation. Therefore, the community management and participation are parts of the process to work together aiming to best enhance utilization of personnel and the existing resources within community for development having outside researcher to be the organizer to disseminate knowledge and skills in research and coordination.

In this study, the researcher has applied PAR because it is a technique of learning for both the researcher and people. The researcher is not only a passive observer but also a proactive as doer. It needs to initiate innovation into the communities where the research is conducted. It is different from the conventional research where the hypothesis had been anticipated but in this investigation, it is learning from activities, which the researcher and the local people share the development. When the research is accomplished, results are the empirical evidence what conditions leading to the consequences.

### **3.2 Participatory Rural Appraisal (PRA)**

PRA is focused on data and thoughts of community members. It is an insider's views through group discussion. Its methodology is similar to PAR but difference is that PRA evaluates/ analyzes problems or specific issue whereas PAR is the technique employed to applied research for gaining some consequences from the research process.

Parichart Valaisatien et al.,(2000: 104-110) collects essence PRA techniques as follows:

PRA is originated from a concept that studying a community is what the community should do because there are many things people in the same community do not know, neglect, overlook or misunderstand e.g. not being aware the rising problem in the near future. Some encountering problems or sometimes touch, and recognize but know not where the cause come from. In turn, it is unable to find remedy or solution to address the problem.

### 3.2.1 Key nature of PRA

3.2.1.1 It is a study of a community where people in it analyze by themselves through group discussion.

3.2.1.2 Developers play as facilitators in the group discussion rather than being the chairpersons or leaders and need to stay from the beginning till the end.

3.2.1.3 Objectives of the study are focused on benefit for the community, locality and individuals participating in the process to be able to analyze, to make decision and acquire potential to solve problems of the community better.

### 3.2.2 Steps of PRA

3.2.2.1 Identify problem for study to be approach to raise question

3.2.2.2 Familiarize with target group and invite them to participate activities

3.2.2.3 Analyze community condition

3.2.2.4 Record data gained form activities, without delay in each step

3.2.4.5 Check data congruently during doing activities by motivating additional exchanges and clarifying

3.2.4.6 With evident problems, it needs to motivate to find solution, direction and implementation

It is seen that PRA is a technique to support and to promote community people to create mutual learning process in analyzing community, recognizing problems together and cooperation to set direction of their own development.

PAR is used in this investigation. However, there are some limitations on research questions because questions should come from community members but this investigation the research questions come from the researcher, which contradicts with PAR principles. By this reason, the researcher has applied PRA to estimate problems and needs of community people whether they are interested in the issues similar to the researcher. (a remedy for limitation in PAR) before PAR has been applied. Further, a step of the process in developing the quality of life indicators is developing the weighing system. By theoretical principles, it needs statistical analyses, which is complicated and difficult for people to understand. Then the researcher has adopted the weighing system of Yongyuth Kajorntham and Aphisit Thamrongvarangkoon as mentioned in 2.1.3. The decision to adopt approach of Yongyuth Kajorntham and Aphisit Thamrongvarangkoon has unanimously shared by participant in the research. Besides evaluating local people potentials on developing the quality of life indicators, the researcher has adopted leading factors of PRA to encourage the local people analyze, decide and evaluate their own values.

## **4. The related researches**

### **4.1 The researches on quality of life**

Somchit Supantouch and Nipa Manoonpiju (1982) found that quality of life consists of knowing to hold one's physical and mental needs back within a limit of adequacy, having ability to use one's intelligence and thought, choosing the ways to serve one's intelligence and thought, choosing the ways to serve one's physical and mental needs suitably without causing other persons any harm and providing other people 1 basic need facilities.

Ferran & Powers (1985) has analyzed quality of life factors of hemodialysis patients consisting of 4 main factors such as health of body function, economical status, psycho-social, and family aspects.

Suchart Prasitruksin (1986) has studied the stipulation of the Philippines' quality of life, which proposes quality of life measurement in form of social index. It regards social as a main issue in which comprising of health and nutrition, learning and education, income and consumption, labor employment, natural resources, house

hold affairs; public utility and environment, safety and justice, political value and social movement/change.

Sakchai Taweesak (1986) has studied about quality of life perception: It is the study only in Muang district, Prachuap Khiri Khan province which found that these have 17 aspects of quality of life factors such as income, family life, residence, employment, health, appliances in a house, working tools, public utility, food, education, virtue, social and friend relationship, land, career, saving, having no debt, safety in life and property, and recreation.

Chidchai Sanansieng (1986) has studies on low quality of life perception of the teachers in Phra Nakhon Si Ayuthaya province and found the there have a factors of quality of life such as age, numbers of children, numbers of family members, income, education, residence, clothing, health, and food.

Uthumporn Jamornmarn (1987) has analyzed the factors concerning quality of life of people in Bangkok into 7 aspects such as social and culture, economic, physical environment , private and state services, and recreation.

Nipon Kunthasewi (1988) has concluded the reports on quality of life from more than 40 articles, both internal and external, and sees that the quality of life factors consist of physical aspect, emotional aspect, physical environment aspect, cultural environmental aspect, and thinking aspect.

Asian Productivity Organization (1991) has conducted the study on quality of life development of people in rural areas in Korea and found that their quality of life are food and nutrition, house and dwelling, clothing, clean drinking water, an insurance of life, health, employment, communication and transportation, legal act, physical environment, social participation, and income.

Taweesak Noonpakdee (1996) has studied on a family institute development for population's quality of life and found that a family institute has an important role on an existence of good social. The most important thing in a family institute development is to make the family members of 3 generations who are the old age (grand father, grand mother), middle age (father, mother), and the children, become people of quality.

Nimit Sitthitrai (1997) has studied quality of life of people in the urban area of Ubon Ratchathani province on families and communities and found that the main factors effecting their quality of life are kinds of career, the use of medias, and family and community life.

The researches concerning the above- mentioned quality of life have a similar conclusion on the 4 basic needs which are food, clothing, medicine, and dwelling. In additions, it also needs education, rest, social status, and good economy. In the part of quality of life measurement, the individual and family levels have been enlarged to become an overall measurement on community and social levels by emphasizing on rights and freedom, and having more strengthened society.

#### **4.2 The researches on an indicator development**

To become a qualified indicator, it must be developed by a reliable systematic development. Normally an indicator development in the past always employs an original statistical analysis or a new analysis using a linear structural relation model or Model Lisrel which is a single group static model. The researches done in the past to develop an indicators by using an original statistical analysis are Amonrat Lakumsaen's (1993): A composite Index Development to Indicate Primary Education Condition, Ladda Darnviriyagul's (1994): A Composite Index Development of Junior Secondary Education Efficiency, Krisawat O-panapun's (1994): A Composite Index Development to Indicate Traits of Under Graduate Students of Chulalongkorn University, Wilaiwan Muenchart's (1994): An Indicator Development on the Success of an Information given in Primary School of office of the National Primary Education commission, and Chalunda Inthacharoen's (1995): Study of the Success Indicators in an Employment of Primary Education Curriculum, B.E.2521 (Readjusted edition, B.E.2533) in Primary School attached office of the National Primary Education Commission. Such 5 researches have a main objective in developing a composite indicators to indicate educational traits or conditions interested by employing exploratory facto analysis in making a composite indicators. The first 3 researches are the component analyses that extract the factors by image analysis and make Orthogonal rotation by Verimax. As for the 2 latter ones, they are the component

analysis which the factors are extracted by Principle component analysis and make Orthogonal rotation with Varimax through SPSS program.

Besides, some researches are an indicator development mainly employ Expert judgement based such as Kulthida Kumbunsak's (1993): An Index Development of Non- formal Education in the Village Level, Ulaiwan Janewanichyanon's (1994): An Index Development to an Academic Excellence of Nursing Faculty, Private Institute of Higher Education, and Trocme (1993) which is the study to develop and evaluate Child neglect index (CNI) by using Gustafson's Multiattribution utility (MAU) in which Expert judgement based and CNI Validity check are employed by making comparison with other standard tools to find out the relation value

As for the research which is an indicator development through a linear structural relation model or Model Lisrel analysis such as Hendricks's indicator development (Hendricks, 1996) has developed on educational indicators for secondary schools in Pensilvania from the existing data base and checked the validity of the model used in making an indicators developed in accordance with the theory and the empirical data by Structural equation model or Model Lisrel. The finding indicates that the model made according to the theory has a coherence with the empirical data, and the structural equation model is an effective tool in making an estimation of Parameter value for an indicator development.

Office of the National Education Commission (1996) has develop a teacher employment efficiency index component analysis. With the principle of Linear structural relation model analysis or Model Lisrel, such development becomes two types of a Teacher employment efficiency index development in which the first is a two – dimension teacher employment efficiency index comprising of a dimension on teacher employment process and a dimension on teacher gained product, and the second is an overall teacher employment efficiency index in which second order facto analysis according to Model Lisrel is employed through Lisrel program. In the first order of the second order factor analysis is an index development from 6 variables of teacher employment process and 10 variables of teacher gained product and the second order is a development of an overall teacher employment efficiency index from the index got in the first one. The result of Teacher employment efficiency index

development by the Second order factor analysis is a harmonious index in from of Chi -square equal to 0.095 (df = I, p = 0.76) and 0.012 ( df = 4, p = 1.00) respectively, and measure in from of GFI is equally 1.00, showing that the model is in harmony with the empirical data.

From the above-mentioned researches, it can be seen that an indicator development in the past always employs an original statistical analysis or a new one by using a linear structural relation model or Model Lisrel which is a Single group static model analysis, but at present the statistical analysis is well developed and very progressive. It can analyze simultaneously the data more than one sampling group which enable to apply well in a development and check the validity of an indicators such as Multiple group structural equation model analysis.

Besides the research employing the past 5 – 6 years that use a qualitative analysis through people participatory indicator development process such as:

The researches of Social Research Institute, Chulalongkorn University and Qualitative Research Association of Thailand (1998) has studied on “Creation and Development of Quality of Life Indicators and Social Development” By having 3 objectives as 1) To create and develop quality of life indicators and social development that cover on both area and national levels by using the group of indicators and data base system developed as a subject of a navigation experiment, 2) To improve it become a more complete tool for planning, to develop quality of life and social development on area and national levels for setting a practice guideline, and 3) To develop a quality of life indicators and social development on area and national levels in the next phase. The result of past evaluation, analysis and synthesis of an indicator series by 4 times of documentary studies, workshops held by the learned men, experts and analysts, including the study on the indicator series in 3 navigation areas; and to make and indicator become efficient, the final goal of the development has been stipulated that: a community has potentiality in learning to create an enduring development which is a fundamental concept that it is an adequate economic development and a enduring development without any destruction of environment, human development is a main target by focusing on physical and mental development including social relation, a promotion on an organization of people’s bodies, an

resource management in term of power distribution and people participation, and a creation of public society and social justice. This frame of development philosophy and fundamental concept is employed as a guideline to check whether an indicators made being in coherence with a development current or having sensitivity enough to make an alarm warning in a critical condition or not. The indicators of quality of quality of life and social development proposed by this research program consist of 8 aspects on 1) fundamental condition and environment 2) economic 3) health and public health 4) information data and learning 5) education and human resource 6) culture and spirit 7) public society, life stability, rights and freedom, and 8) family and community.

The research of Yongyuth Kajorntham and Aphisit Thamrongvarangkoon (2000) on “the Process of Developing Happiness Indicators of the Thai People” is a process study employing an analytical process as a tool in developing an indicator of happiness for an evaluation of local people’s happiness change, learning net work for self reliance and mutual dependence of 200 North Eastern intellectual groups and their multilateral in 4 Provinces such as Buri Ram province, Nakhon Ratchasima province, Khon Kaen province, and Surin province. As a result of this study, it is found that the factors of happiness are divided into 8 categories as 1) an insurance of life 2) strong body and mind 3) warm family 4) strong community 5) good environment 6) freedom 7) pride, and 8) realization of truth on living together. On the part of happiness index development, it is found that by using matching form of 21 questions that represent all component of 8 categories and the scores are calculated for index value by Weighted Multiplicative Additive model which after comparing with Visual Analog happiness evaluation, the result obtained is concurrent.

The examples of both researches show that people have potentiality and capability to evaluate quality of life and to create an appropriate quality of life indicators by themselves.

The conclusion obtained from the research review on a quality of life development fin that:

1. In general, the approach of indicator development in the past always employs an original statistical analysis such as Factor Analysis, Multiple Regression Analysis, Discriminant Analysis or Canonical Correlation Analysis, etc.. But an analytical academic approach at present has been developed more progressively such as a new type of an analysis employing Linear Structural Relation model or Model Lisrel which is a single group static model analysis, or multiple group structural equation model used to analysis data Simultaneously in case of having more than one sample group which able to apply it well in developing and checking the validity of an indicators.

2. On the concept of quality of life indicator development, a quality of life indicator development, a quality of life indicator development at the beginning has studied only on an objective aspect without looking at a subjective aspect. So the scholars try to study quality of life on both sides but they still unable to find out the conclusion about necessary conditions and Sufficient conditions that indicate the quality of life accepted by mutual agreement. However, every one agrees that they should seek for the indicators that enable to reflect social picture well, and create a people participatory process in making a quality of life indicators. In additions, there also has and agreement that there should have many diverse quality of life indicators depending on the area conditions of which reflect various levels of quality of life. So the concept is separated into 2 ways as (1) a creation and development of an indicators has a main target at an indication the degree of social conditions, and (2) a development or creation of a quality of life indicators has a main target being a tool for a new pattern of development planning in which dictated of set by people.

3. A process of making quality of life indicators. From the diversity of concepts mentioned above lead to the diverse processes in indicator making such as the first concept that has a target at employing an indicators to indicate the degree of social conditions, is always created for using in a development planning. The most users are people who work in the offices responsible for making policy on the approach and process, always use mainly an idea mobilization and quantitative measurement. Though an effort has been made by adding many dimensions to cover more matters, an indicator development is still limited within the circle of persons

involved by people have role and duty as merely the data providers. As for the second concept which gives importance on a participation of people in setting quality of life indicators by themselves, it adds a making approach by allowing a participatory practical analysis have more role in making an indicators.

4. An indicator development in the first concept (tight perspective) that has a target at employing an indicators to indicate the degree of indicate the degree of social conditions ins still necessary for country development planning but a making approach should be adjusted to suit the state policy on power distribution by transferring an administration power down to focal organizations to reduce state role into being solely a supervisor who gives advice while local organizations have much more role in employing an indicators. An indicator development in the second concept (board perspective) that gives an importance on people's participation in setting their own indicators, though the past researches have less study on this, they still indicate the potentiality of people in community and their ability to evaluate quality of life as well as to make suitable quality of life indicators. This conclusion can use only with a strong community, not cover the other ones, but a development of quality of life indicators along with this concept has an advantage that it is another way of an empowerment on learning process to people in a community.

## **5. Conceptual framework of quality of life indicator and people's participatory process**

From the literary review on the theoretical concepts such as basic technique in quality of life indicator development, concept on quality of life development, concept on making an indicators, and some researches, the researcher has set the frame of study on a development of people's quality of life by a participatory process to answer research problems such as 1) What are the perspectives of quality of life among people living in housing estate communities? 2) What are quality of life indicators of people?, and 3) What is a process in making quality of life indicators by people, what conditions/ factors being the determiners ?

## 5.1 Methods of study

5.1.1 This research applies broad perspective in analysis as thinking-based by integrating many methods, i.e. the Participatory Action Research (PAR), and the Participatory Rural Appraisal (PRA) as tools in investigation by believing that it will reduce a limitation of the original making process and encourage people to participate in self - setting the quality of life. Besides, PAR is also an empowerment through learning and development process as a source of creative power for people in a society to pay attention to their mutual social development.

5.1.2 Checking an indicator quality. One important quality of an indicator development in Broad perspective analysis is a data accuracy must be examined through a comparison among an index, a data provider, an approach, and the diverse evaluator. In additions, an examination will be made by the data providers and diverse methods such as:

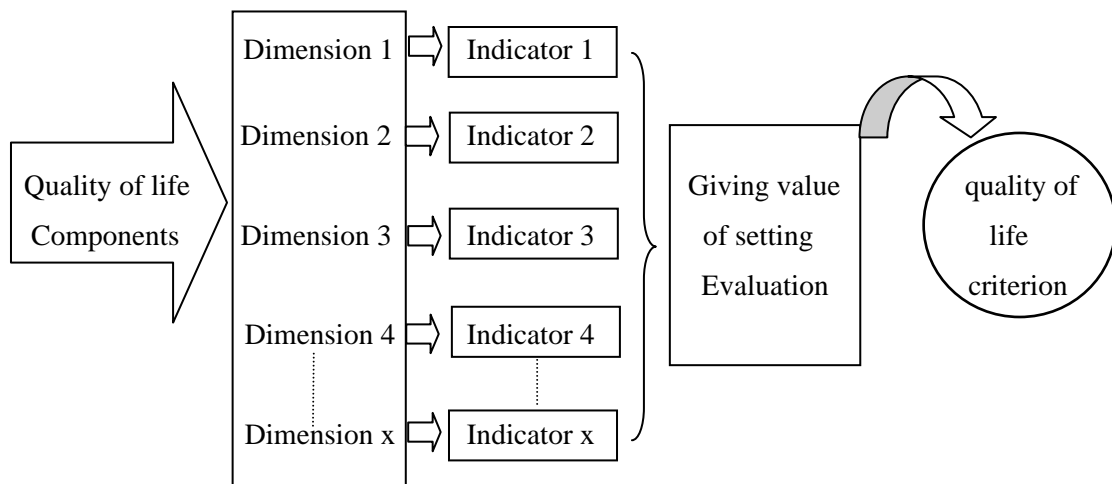
5.1.2.1 After getting a series of people's quality of life indicators from the communities in the study area, a quality of life indicator developed will be checked by comparing the people developed series of quality of life indicator with the quality of life indicator series synthesized from the theoretical concepts and researches.

5.1.2.2 After getting a series of people's quality of life indicators from the communities in the study area, a quality of life indicator developed will be checked by changing the people developed series of quality of life indicators in a survey questionnaire for people making an experiment survey population's quality of life conditions in the community without expecting any statistical accuracy, just hope have learning process from their real practice which is the main factor of a social endurance.

5.1.3 A weighing system development is another key step according to the basic principle of an indicator making. On account of the factors and indicators of quality of life have some categories, each factor and indicator will unequally affect a good quality of life and one who can weigh the best of the factors and an indicator is a user himself. This research then designs weighing the factors and an indicator of quality of life by allowing people in the study area in Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province.

## 5.2 A component synthesis of quality of life indicators from the literary review

The indicator series of people's quality of life proposed in this research, obtained from a document synthesis which mostly are the study in rural areas by having an objective simply to examine the quality of the indicator series through a comparison with a series of quality of life indicators made by people, not being used as a frame or an induced data during conducting the research. The researcher uses a frame in a synthesis as follows:



From such frame of concept, it can be seen that in making any quality of life indicators must begin with a finding or an indication of the main components in various dimensions, after that the indicators are set or made and finally a evaluation criterion is set to evaluate each indicator in what degree should it be of having good quality of life.

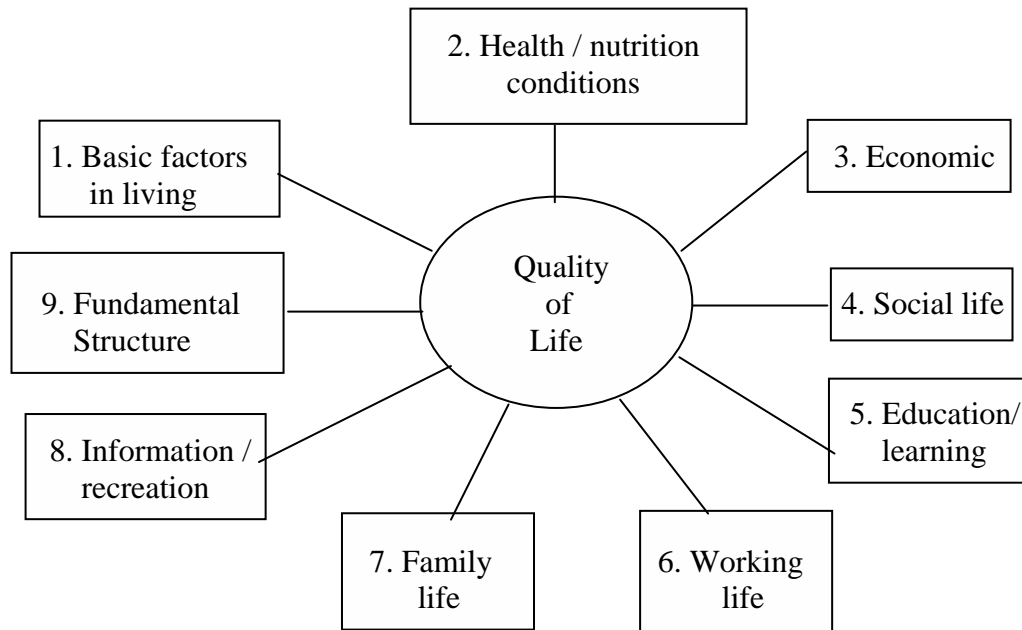
As for the data used in the synthesis to find out the components of quality of life, the researcher employs the main indicator series from internal and foreign countries, the concerned researches, and the academic notions in various fields as follows:

- 1) OECD measures of well - being
- 2) The Philippines quality of life indicator
- 3) Malaysian quality of life indicator

- 4) German quality of life indicator
- 5) Quality of life indicators of countries in Asia - Pacific region
- 6) UNDP human life stability indicator
- 7) Commission for National Rural Development 2 C
- 8) Basic necessity
- 9) Department of Public Welfare, Ministry of Interior
- 10) The scholars and writers' quality of life indicators such as Dr. Puey Ung - parkorn, Pra- thepwetee, etc.
- 11) The researches on quality of life such as the researches of Suchart Prasitruksin (1986), Sakchai Taweesak (1986), Chitchai Sananseing (1986), Utoomporn Jarmornmarn (1987), Nipon Kantasewee (1988), Asian Productivity Organization (1991), Yongyuth Kajorntham and Aphisit Thamrongvarankoon (2000), etc.

From the above data, it can be concluded and selected the main components of people's quality of life indicators into 9 aspects such as basic factors in living, health and nutrition condition, economic, social life, education / learning, working life, family life, information / recreation, and fundamental structure (Table 3 and Figure 2).



**Figure 2:** Conclusion of the main components of quality of life

In giving the details of indicators of each component in a dimensions, the data obtained from the research reports are employed as follows :

### 1. Basic factors of living

From the study reports on basic factors of living found that it is composed of the aspects on food, dwelling, clothing, natural physical environment, house surrounding condition, housing public utility, house facilities, and necessary appliances (Amara Pongsapit, 2000: 112; Asian Productivity Organization, 1991: 104; Barnard & Merve, 1991: 2; Chitchai Sananseing, 1986: 64; Flanagan, 1978: 96; Nicolus Bannet, 1976: 57; Puttama Ratre, 1988: 72; Rogerson, 1995: 62-63; Sripong Jitkornkitsil, 1983: 61; Teprit Amaritwun, 1993: 77; Sukchai Taweesak, 1986: 81; Suchart Prasitrutsin, 1986: 57; Utumporn Jamornmarn, 1987: 91; United Nations, 1998: 201-200; Yongyuth Kajorntham and Aphisit Thamrongvarangkoon, 2000: 26).

### 2. Health

#### 2.1 Physical health

From the research reports found that physical health for people should consist of being free from illness, having physical strength, having no

symptom of chronic diseases, a period of being sick, self- attendance when get sick, a place for a service of sick call, treatment expenditure, patient attendant, health welfare, avoidance from the accidents and health violence, ability of use medicine, and annual check - up (Amara Pongsapit, 1990: 112; Chitchai Sananseing, 1986: 64; Fallowfield, 1993: 62; Ferrans, 1990: 75; Flanagan, 1978: 96; Miettinen, 1987: 112; Sanan Somboon, 1988: 51; Somjit Suphuntasana and Nipa Manoonpiju, 1982: 47; Sriopong Jitkornkitsil, 1983: 61; Suchart prasitutsin, 1986: 57; Sukchai Taweesak, 1986: 81; United Nations, 1998: 201-202; Utumporn Jamornmarn, 1987: 91; Wattanasarn Parnphet, 1988: 53; Yongyuth Kajorntham and Aphisit Thamrongvarangkoon, 2000: 26).

## 2.2 Mental health

Mental health is a important component to quality of life due to the group of people who study it want to adjust themselves to the changes in economic, social, and environment if which to indicate mental health condition a consideration should be taken on physical abnormality, mental abnormal symptom, and mental healthy judgement. It is found from the study that mental health component can be explained by a variable of self – control in critical condition, having good mental health, self – confidence when face an unexpected situation, and despair in life (Krupinski, 1987: 84; Nagpal & Sell, 1985: 54; Tawatchai Vorapongthorn, Wongduen Pandee and Somporn Treamchaisri, 1990: 48; Yongyuth Kajorntham and Aphisit Thamrongvarangkoon, 2000: 26).

## 3. Economic

It can be seen the and economic component does not mean only money itself, it may be considered from and income, property owner, property security, financial stability, main career, family supporting career, social insurance, saving money, debt status, production or efficient food procurement, investment, survival insurance, economic self – reliance, and participation in living development, that all of them can indicate people's economic condition (Asian Productivity Organization, 1991: 104; Chanin Jaroenkul, 1991: 60; Flanagan, 978: 96; Nakarin Boongorgaew, 1993: 48; Pramorn Chuapasak, 1987: 65; Ratchaneekorn Saittharo, 1985: 43; Sakol Kun-udom, 1993: 53; Sujin Chimthai, 1993: 28; Sukchai Taweesak, 1986: 81; Theprit

Amaritwun, 1993: 77; United Nations, 1998: 201-202; Utumporn Jamornmarn, 1987: 91; Yongyuth Kajorntham and Aphisit Thamrongvarangkoon, 2000: 26).

#### 4. Social life

Social life of people will be of personal dependence of each other in both family and community, happy mutual living, mutual participation in social activities, participation in group affairs and activities, and a development of group organization. From the study reports, it can be seen that good relationship with people in a community society is necessary which comprising of relationship with a spouse, children, relatives, friends, and neighbours. As for community participation, people should have social activities such a an activity on helping other people in a society, the activities in local area and state organizations, participation for well – being development and setting community way of life in a social (Flanagan, 1978: 96; Sakol Kun-udom, 1993: 53; United Nations, 1989: 201-202; Vichai Neerapan, 1993: 39; Yongyuth Kajorntham and Aphisit Thamrongvarangkoon, 2000: 26)

#### 5. Education / learning

A quality of live index on education / learning should be composed of an education level, learning process and knowledge and experience transference, and information access, and training (Sakda Klingsukon, 1992: 39; Sripong Jitkornkitsil, 1983: 61; Sukchai Taweesak, 1986: 81; Yongyuth Kajorntham and Aphisit Thamrongvaranghoon, 2000: 26).

#### 6. Working life

From the study report on working life found that it is composed of the factors on working participation, leisure time, working hours, working days, working stability and progress or accomplishment, employment condition, and self-development in making living (Amara Pongsapit, 1990: 112; Pradit Ta-ngaw, 1988: 59; Saisunee Ratanaraktiya, 1994: 37; Sujin Chimthai, 1993: 28; Theprit Amaritwun, 1993: 77; United Nations, 1998: 201-202; Wanrak Mingmaneeenakin, 1988: 27; Yongyuth Kajorntham and Aphisit Thamrongvarangkoon, 2000: 26).

## 7. Family life

Family life, an important component for people's quality of live consists of number of family members, status role in a family, security and welfare of family, members and a successful family (Chanin Jaroenkul, 1991: 60; Chitchai Sananseing, 1986: 64; Kuntz, 1990: 67; Sukchai Taweesak, 1986: 81; United Nations, 1998: 201-202; Yongyuth Kajorntham and Aphisit Thamrongvarangkoon, 2000: 26).

## 8. Recreation

From the study, recreation indicator consists of social recreation, recreation by the entertainment, and self-practice recreation. These activities will indicate people's recreational well - being or quality of life (Flanagan, 1978: 96; United nations, 1998: 201-202).

## 9. Fundamental structure

Fundamental structure indicator consists of roads, tap-water, and electricity (The Community Development Department, 2000: 91-93; Yongyuth Kajorntham and Aphisit Thamrongvarangkoon, 2000: 26).

The review study in detail of sub- indicators in each component of quality of live from the research reports can be concluded that: people's quality of live that indicates and overall picture of personal and family levels should be composed of 9 factors of basic factors in living, health, economic, family live, social live, education, working live, recreation, and fundamental structure. In addition, other factors such as good health, being free from sickness or chronic diseases, getting care of illness treatment, avoiding from risk factors and having good mental health, basic factors in living (food, clothing and dwelling), appropriate environment, good economic, good relationship with family members and other people, good family, working and social life, participation in social activities, recreation , and family members get education and learning form experiences, are the things that necessary for people and indicate quality of live objectively. Moreover, People's acknowledgement of or satisfaction with the 9 factors will be an indicator of subjective quality of life. The overall picture of people's quality of life from the review study is the well-being in such 9 factors.

**Table 4:** Conclusion of people's quality of life indicator from the documentary review \*

Basic factors (9 categories)	Indicator (56 indicators)
1. Basic factors in living	<ul style="list-style-type: none"> <li>- 4 basic need adequacy</li> <li>- Natural physical environment</li> <li>- Dwelling surrounding</li> <li>- House facilities</li> <li>- Necessary appliances</li> </ul>
2. Health	1) Physical healthy <ul style="list-style-type: none"> <li>- Free from illness and chronic disease symptoms</li> <li>- Physical strength</li> <li>- Period of sickness</li> <li>- Self – attendance when get sick</li> <li>- Place for a service of sick call</li> <li>- Treatment expenditure</li> <li>- Patient attendant</li> <li>- Health welfare</li> <li>- Accident and health violence avoidance</li> <li>- Ability to use medicine</li> <li>- Annual check-up</li> </ul>
2. Health	2) Mental Health <ul style="list-style-type: none"> <li>- Self - control in critical condition</li> <li>- Self - confidence when face an unexpected situation</li> <li>- Good mental health, no despair in life</li> <li>- No worries about family and close people</li> <li>- No conflict with relatives and other people</li> </ul>
3. Economic	<ul style="list-style-type: none"> <li>- Property owner</li> <li>- Property security</li> <li>- Income/financial stability</li> <li>- Main career</li> <li>- Family supporting career</li> <li>- Social insurance</li> <li>- Saving money</li> <li>- Debt status</li> <li>- Investment</li> <li>- Survival insurance</li> <li>- Economic self- reliance</li> </ul>

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\* The objective is to examine the quality of quality of life indicator series by comparing it solely with the quality of life indicator series made by people, not employ it as a from or an induced data during conducting the research.

**Table 4:** Conclusion of people's quality of life indicator from the documentary review\* (cont.)

Basic factors (a categories)	Indicator (56 indicators)
4. Social life	<ul style="list-style-type: none"> <li>- Good relationship with people in a society</li> <li>- Social activities</li> <li>- Activities on helping other people in a society</li> <li>- Participation in a development for well - being and setting way of life</li> <li>- Participation in the organization group activities in a community</li> </ul>
5. Education	<ul style="list-style-type: none"> <li>- Education level</li> <li>- Learning process and a transference of knowledge and experience</li> <li>- Training</li> </ul>
6. Working life	<ul style="list-style-type: none"> <li>- Working Participation</li> <li>- Unemployment</li> <li>- Working hours</li> <li>- Working days</li> <li>- Stability and progress in working</li> <li>- Employment condition</li> <li>- Self – development in making living</li> </ul>
7. Family life	<ul style="list-style-type: none"> <li>- Number of family members</li> <li>- Status role in a family</li> <li>- Security and welfare of family members</li> <li>- A successful family</li> </ul>
8. Recreation / information	<ul style="list-style-type: none"> <li>- Social recreation</li> <li>- Recreation by the entertainment</li> <li>- Self – practice recreation</li> </ul>
9. Fundamental structure	<ul style="list-style-type: none"> <li>- Public utility ( electricity, tap-water, road, etc.</li> </ul>

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\* The objective is to examine the quality of quality of life indicator series by comparing it solely with the quality of life indicator series made by people, not employ it as a from or an induced data during conducting the research.

## **CHAPTER III**

### **METHODOLOGY**

This research is to develop people's quality of life indicator by a participatory process. It is designed by applies broad perspective in analysis as thinking-based by integrating many methods, i.e. the Participatory Action Research (PAR), and the Participatory Rural Appraisal (PRA) as tools in investigation with fundamental concept that quality of life is "a value" in human himself which can set whatever values for his own self by considering whether those things have any relations with what matters in his surroundings. To achieve good quality of life, human being has to decide to choose on what way to live and in what environment and what he should finally do to meet his goal.

The study is conducted in 2 phases that is: the first one is a literature review study and the second is a quality of life development process. This chapter will present the details of a research procedure as follows:

1. Phase 1: Literature study
  - 1.1 Literary review
  - 1.2 Literature sources
2. Phase 2: A quality of life development process
  - 2.1 The study area
  - 2.2 Target groups
  - 2.3 Unit of analysis
  - 2.4 Data collecting techniques
  - 2.5 Instrumentation
  - 2.6 Approaches/Steps of study

#### **1. Phase 1: Literature study**

##### **1.1 Literary review**

A study from the literatures through a secondary data analysis, has an objective to review the literatures to comprehend clearly or basic technique in

developing a quality of life indicator, quality of life concept, and quality of life development as follows:

- Literary review on quality of life such as concept human development, concept on human security, social development concept, and quality of life concept.
- Literary review on an indicator development approach such as a principle concept on indicators, an indicator development, a quality of life indicator development, an evolution of a quality of life indicator development, guidelines of quality of life indicator development under the diverse analytical perspectives, and the concerned researches.
- Literary review on basic technique of a quality of life indicator development such as participatory action research (PAR), Participatory Rural Appraisal (PRA)

The review on theoretical concepts from various literatures and researches concerned is a guideline employed by the researcher as the data in a synthesis a series of the component and a quality of life indicator to check the quality of life indicator series through a comparison with a quality of life indicator series made by people in the study area, which is merely the second phase of an analytical process by comparing to see that how people in the study area have alike or different perspective from what of the academic, not being employed as a frame or induced data during the research.

## **1.2 Literature sources**

The literature sources involving the research are the sources treated by studying, the literatures that propound the writers' direct ideas and experiences such as the articles and research works in the academic journals, research reports of an individual, company, and offices that take direct charge on this duty, the thesis study of both master and doctoral degrees, and independent study involving this research, books, texts, working manuals, and annual reports involving the research.

## **2. Phase 2: A quality of life development process**

It is a research conducted in the study area by having an objective to develop people's quality of life indicator through participatory process. An indicator

development in this research which employs participatory action research (PAR) and the Participatory Rural Appraisal (PRA) is a continuous work that emphasizes on allowing people in the study area and a researcher have a chance to learn and practice together. Since an output target of this participatory process is to create knowledge body and management administrative tool. Then data collecting methods will be adapted so as to suit the condition and limitation of an area.

## **2.1 The study area**

As it has been mentioned in chapter one that this study does not expect to exploit its result for generalization, the study area is then purposively selected and it is a housing estate in Putthamonthon district, Nakhon Pathom province is also an area with rapid growth tendency to be a city that is: in the past it has been a fertile area, having geographical condition suits for cultivation. So the settlers in this area have an agricultural career ever since so that it can be said that Putthamonthon district is one of the most important agricultural areas in Thailand. However, at present it has dramatic change due to the state development program, especially the growth distribution program into the periphery to decrease the congestion of the inner cities of Bangkok (Boonchok Thaithatakun et.al., 2001: 87) which leads to the transportation route development to link and to provide more convenience among the cities. Putthamonthon district then becomes a peripheral area supporting the expansion of Bangkok and Nakhon Pathom province. This transportation convenience causes Putthamonthon district itself into more urbanization. A medium to high level of private household business including other real estate business significantly grow (Supavan Phlainoi. Ed., 2001: 56). The private household villages in Putthamonthon district has now increased from a places in 2001 to 15 ones in 2004 and there have the entrepreneurs managing to register for that another 2 places. Among this 15 private household villages are medium village size (101-300 houses) and the large ones (more than 301 houses) with a great deal of dwellers (Office of Land, Nakhon Chaisi district, 2004: 25-30). The rapid growth of these private household and real estate business cause the change of land exploitation and way of life from being rural society into city life in which is full of competition and advantages taking. It is the congested condition resulted in causing mal-behavior. Aggressiveness and perhaps leads to violent conflict

affecting relationship among people in a community and people's quality of life as a whole. Contemplating these reasons, the researcher then chooses this area as the study area.

To obtain an example community for the study, the researcher chooses purposively a village in Maha Sawat sub-district because it is a large private household community and people in the area want to develop this area to be a pleasant one (Phutamonthon Community Development and Research Project, 2001: 16-17) where as this research conducted, it will help empower people in developing their own locality in the direction that advocates in another way a quality of life of people in the community.

Moreover, the study area is a large private household village situated in a governmental area of 3 villages\* i.e. 1) Moo A: Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province (Zone 2) 2) Moo B: Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province (Zone 1), and 3) Moo C: Lan Takfa sub-district, Nakhon Chaisi district, Nakhon Pathom province (Zone 3). When the researcher begins conducting the research following the first step which is to evaluate its overview and to collect community data, both target groups and the researcher have reached a conclusion that the research should be primarily conducted in a pilot area and then extend to the neighboring areas which means a quality of life indicator development process will use Moo A Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province as a pilot area for the study (the details will be propounded in chapter IV).

## **2.2 Target groups**

Target groups are people in a community, a community leader, and a community researcher that refer to people in the study area private household community who voluntarily participate in the research by performing the duty as a coordinator, a manager in co-thinking and cooperating through the research process.

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\* all names are pseudonym

### **2.3 Unit of analysis**

Unit of analysis is an individual level and a community level.

### **2.4 Data collecting techniques**

2.4.1 Literature data is treated by collecting and studying the government officers' data at district level to obtain an area fundamental data in overall picture, and by studying data from the literatures of the research reports concerning the study area to employ them as a basic data in evaluating community condition and selecting key informants.

2.4.2 An interview is managed in 2 aspects

2.4.2.1 A basic data inquiry to gather basic data about an area condition by inquiring the sale office personnel of a private household construction entrepreneur company which is "Real Estate Company Co."\*, the officials of Community Development Office in Putthamonthon district, Nakhon Pathom province and Community Development Office in Nakhon Chaisi district, Nakhon Pathom province.

2.4.2.2 In-depth interview the key informants, money saving group leader to obtain specific data in various matters. The interview lasts about 1-2 hours.

2.4.3 Participant observation to check the reliability of data and manner while having an activity which finds that some activity participants are reluctant to give data and always talk about the community only on good side, and they sometimes do not dare to show their manners or express ideas if person of higher social status takes part in the activity with them. The observation found is useful for working process adjustment to suit the characteristics of the target groups who participate in the activity.

2.4.4 Group interview or group discussion is a method used more frequently than the others. In this study, this technique is the meetings with sub-groups in community (classify according to physical conditions of house locations divided

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\* name is pseudonym

into lanes/soi) by harmoniously and appropriately holding them for community members' way of life since the community members who join the activity to exchange ideas will have free time during evening after work and weekends. So the activities are always organized for discussion or sub-group meeting during an evening after work in workdays, and in Sunday afternoon, which is the day, when all members is free. In managing sub-group activities in a community, a person who has role on setting time, date, and place is a community researcher, a representative of community who voluntarily joins the research (the detail will be mentioned in Chapter IV) by the researcher and a community researcher does his duty alternately as a discussion coordinator. Each one has a data-recording assistant using a record form to fill in an observation and its result obtained from the discussion. Each group discussion lasts about 1-2 hours with simplicity and informality.

2.4.5 Forum is a technique employed when needed to find a conclusion and to determine the result of an activity performance. In conducting this study, the forum has been organized for 4 times such as 1) People Readiness Preparation Forum, 2) Forum for Conclusion the Result of Activity Performance in Finding out Quality of Life Meaning and its Factors, 3) Forum for Selecting the Factors and Setting Quality of Life Indicator, and 4) Forum for Communication on the Result of Weighing and Indicator Series Utilization.

## **2.5 Instrumentation**

The tool employed in a community work to gather data for this study consists of 3 sets (see Appendix) such as:

2.5.1 Question guideline is for gathering meaning and factors of quality of life under community members' perspective by raising questions to make the meeting/discussion participants express their own point of views on quality of life and the factors affecting good quality of life.

From the key questions it leads to idea assimilation on sub-questions to get the issues for setting quality of life factors and indicator, including a design of opinion questionnaire to check the quality of life indicator developed mutually by the community members.

2.5.2 Quality of life indicator checking questionnaire is done by checking an indicators series developed by a pilot community in the testing area

2.5.3 A pair factor and indicator weighing questionnaire.

## **2.6 Approaches/Steps of study**

A development on people's quality of life indicator by applies broad perspective in analysis as thinking-based by integrating the Participatory Action Research (PAR) and the Participatory Rural Appraisal (PRA) technique has 5 key management steps as follow:

### **2.6.1 Evaluate general conditions and collect community data**

The study and synthesis on basic data of the community subjected to be studied has primary intention to evaluate problem condition and the need of community in order to check whether are the fieldwork people interested by employing PRA technique, before start performing the activities in participatory action research process, including to allow a researcher familiarized with the studied community condition, and also establish relations with the members in the community which is the most important thing since the participatory research is the work not mainly rely on a researcher, but on the readiness factors of people in a community. The researcher then begins first with an establishing relations with people in a community by introducing herself, and presents the research objectives by organizing group discussion for informally conversing to allow the participants acknowledge the whole research process.

### **2.6.2 Finding out meaning and the factors of "quality of life"**

To make an indicator a role in increasing an individual potentiality on having good quality of life, it is necessary to give the meaning of "quality of life" of what does it mean in people's attitude since each person has different attitude towards a word "it". By such reason, the first step of a quality of life indicator development is then necessary to find out the meaning of "quality of life". In addition, the PAR emphasizes on real participation of people where as people should have role in setting and defining the meaning as well as the factors of "quality of life" by themselves. This step uses sub-group discussion to assimilate ideas from the target

groups. After obtaining the meaning and factors of quality of life, a mutual forum organized to synthesize the meaning and factors of “quality of life” given by people in the community.

### 2.6.3 Selecting the factors and an indicator of quality of life

It is a continuing process from the step of finding out meaning and the factors of “quality of life”. An activity during this period will be a common judging process to select the factors and an indicator of quality of life, which is the step that needs high participation of people in the area. Therefore, this step employs an open forum approach for people to participate in the activity. The moderators (the researcher and the community researchers) invite participants to select factors of quality of life by hand vote to reduce factors of quality of life from the step in No. 2.6.2. Later, participants are invited to identify words/phrases related to the good quality of life and those words/ phrases are recorded and placed in the selected factors. Words/ phrases in each factor are not equal. The recorded data (factors and words/phrases) will be prepared as questionnaire for further test in the fieldwork allowing respondent to comment. This technique has been modified from the technique of Yongyuth Kajorntham and Aphisit Thamrongvarangkoon, (2000: 16-18).

### 2.6.4 Checking the factors and an indicator of quality of life, and weighing system development

The process of developing quality of life indicators should be aware and prioritize another step, which is testing quality of indicators and developing the weighing system.

Testing factors and indicators of the quality of life is to check quality of factors and sets of the developed indicators, whether they are relevant the theoretical conceptual framework also, whether they are relevant to most community members. Had they been relevant with theory and comments of most community members, it indicated that the developed factors and indicators of quality of life are qualified and proper for a specific community group, specific locality. Therefore, they match the technique of broad perspective analysis.

Developing weighing system is to identify the prioritized weight of each factor and each indicator. Rationally, each factor and each indicator have either equal significance/ weight or might not be. Identifying weight is to enable prioritizing factors and indicators. Had there been to develop or to improve the quality of life, which factors and indicators should be prioritized to be managed/ improved?

2.6.4.1 Checking a quality of life indicator (the factors and an indicator) is complete through the techniques and allows the different informants to check by comparing it with a theoretical indicator as follows:

- Bring an indicator series mutually selected by people in a pilot area (Moo A: Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province (Zone 2)) to a checking office to organize opinion questionnaire among people in the 2 near-by testing areas within the study area private household villages at Moo B: Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province (Zone 1) and 3) Moo C: Lan Takfa sub-district, Nakhon Chaisi district, Nakhon Pathom province (Zone 3). 400 sets of questionnaire are distributed among zone 1, zone 3 in 200 sets each.

- Besides checking by a survey form, the researcher, as part of checking with a theoretical indicator series, will synthesize comparing indicator series developed by people with a theoretical indicator series, and publicize the study result and the findings for people's acknowledgment.

2.6.4.2 A weighing system development is another key step according to the basic principle of an indicator making. On account of the factors and indicators of quality of life have some categories, each factor and indicator will unequally affect a good quality of life and one who can weigh the best of the factors and an indicator is a user himself. This research then designs weighing the factors and an indicator of quality of life by allowing people in the study area express their opinions which also help the research participants of both a community researcher and people who participate in the activity to learn a theoretical process through all steps. A weighing system development of the factors and an indicator is managed by making a pair weighing questionnaire of factor and indicator for people to express their opinions, and calculate for their weighing. Though there have some indicator

weighing approach as mentioned in Chapter 2 (Literature Review), the researcher chooses a weighing approach by pair comparison. This pair weighing approach of factor and indicator is adapted from Yongyuth Kajorntham and Aphisit Thamrongvarangkoon's approach (2000: 24-28) after considering and see that it is not too difficult and complicated, it is suitable for the community members who are not good at statistical calculation and the informants can express their opinions as well as making decision easy, including the calculation is not difficult and appropriate for people who are unfamiliar with an indicator making before.

After calculating a value of factors and indicators weighing, a forum is organized for discussion of the weighing result and indicator series utilization.

#### 2.6.5 An evaluation follow-up

After obtaining the quality of life indicator series, the final step is an evaluation follow-up, which is a necessary and indispensable activity in PAR research process. An evaluation follow-up means an evaluation/analysis of people's potential in making and developing an indicator by holding sub-group meeting among the researcher, a community researcher and regular community members of the activities to evaluate people's potential. This evaluation employs Chulalongkorn University Social Research Institute's evaluation principle (2001: 72-73) that classifies people's potential in making and developing an indicator into 3 levels as 1) people have enough potential, 2) people are developing their potential, and 3) people do not comprehend the study process. A meeting is regularly called for among the researcher, the community researchers and community members to evaluate people potentials particularly the group participating in the activities as well as evaluating the people potentials in general. Participants are allowed to comment and self-evaluation whether they understand the purpose of the process in formulating indicators of quality of life. What group they should be admitted? Other participants are allowed to give additional comments including evaluating potentials and grouping people in the entire community.

It may summarize the process in formulating indicators of quality of life based on Participatory Research on the five 5 steps as in Table 5

**Table 5:** Conclusion of steps of people's quality of life indicator development by a participatory process

Steps	Activities	Approaches
1	Evaluate general condition and gather community data	<ul style="list-style-type: none"> <li>• Study data from the literatures, inquire and interview the key informants by discussion, inquiry, an individual interview, and sub-group discussion</li> <li>• A shared learning forum for checking issues</li> </ul>
2	Finding out meaning and the factors of "Quality of life"	<ul style="list-style-type: none"> <li>• Sub-group discussion for idea mobilization</li> <li>• Hold a shared learning forum to analyze and conclude the meaning</li> </ul>
3	Select the factors and quality of life indicator	<ul style="list-style-type: none"> <li>• A shared learning forum is organized to select the factors and an indicator of quality of life</li> </ul>
4	Checking the factors and indicator of quality of life, and weighing system development	<ul style="list-style-type: none"> <li>• An indicator series made by people (in the pilot area, Moo A: Maha Sawat sub-district) is changed in form of questionnaire for people in the testing area (Moo B: Maha Sawat sub-district and Moo C: Lan Takfa sub-district) to express their opinions</li> <li>• Checking by comparing with theoretical indicators</li> <li>• Making a weighing questionnaire for people to express their opinions and inform them the study result</li> <li>• A shared learning forum for communicating results</li> </ul>
5	An evaluation follow-up	<ul style="list-style-type: none"> <li>• Analyze people's potential on an indicator development which is classified into 3 levels:               <ol style="list-style-type: none"> <li>1) people have enough potential</li> <li>2) people are developing their potential</li> <li>3) people do not comprehend the study process</li> </ol> </li> </ul>

Since this research is the study that places importance on participation and being a pragmatic research, which significantly focuses on the process, such above 5 steps presented in this Chapter is only brief management steps. The processing management details are to give a picture of a working process whereas the people participation in the area will be presented in the next chapter.

## **CHAPTER IV**

### **DEVELOPING QUALITY OF LIFE INDICATORS BY PARTICIPATORY PROCESS**

Developing Quality of Life Indicator Participatory Process at the study area in Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province was based on Broad Perspective Analysis as conceptualization. Techniques of PAR and PRA were used. PRA had been the principal technique while PAR was the supportive (to solve limitations when PAR had been applied)<sup>\*</sup> to evaluating the problems and needs of people in a community whether were there any interests for the researcher. It was also used for evaluating people potential in developing quality of life indicator. Multiple techniques of data collection were flexible and adaptable with the real situation during the research works such as group conversation and staged public meeting. This was to gain the movement of working, the drives and people participation in the area as well as to solve problems in applying to techniques to serve the working process, which it had been peripherally designed. Findings in this chapter were details of research process containing 5 steps prior to producing its result, summary and lessons learnt. Working process were as follows:

1. Evaluation of general conditions and the collection of community data
2. Seeking meaning and factors of quality of life
3. Selection of factors and identification of quality of life indicators
4. Test of factors, quality of life indicators and develop of weight system
5. Evaluations
6. Conclusion of the process on developing people quality of life indicator

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<sup>\*</sup> The principles of PAR techniques require participation in every step. This research has divided into 5 steps, i.e. 1) estimating the general condition and data collection of the community, 2) seeking meaning and factor of “quality of life”, 3) selecting quality life factors and indicators, 4) checking quality life factors and indicators and developing the weighing systems, and 5) evaluation. In the first step, participants are unable to participate because it has been the interest of the researcher. Therefore, PAR techniques have been used as remedy to the limitations.

## **1. Evaluation of general conditions and the collection of community data**

Working process during this phase marked the beginning of the research operations with its community participation. It started with the search for key informants and entering the community. Preparations of community readiness was organized in order to getting to know its people, understanding and adjusting to the level of thoughts between the researcher and people within the community. Working process during this phase evolved details as follows:

### **1.1 Seeking key informants and entering the community**

The PAR does not solely depend upon its researcher but on the readiness of the people within the community who are participating in the fieldwork. Therefore, when seeking / selecting people in the community to become a joint researcher which we now called community researchers are very important.

With this research the researcher used the approach by beginning to seek out for key informants who will paved the way to enter the community. The first key informant will look for other informer by using the snowball technique, that is the first informant will make the reference or to introduce the next ones.

#### **1.1.1 Seeking keys informants**

Seeking for key informants to pave the way into the community is probably one of the most important step required efforts and time. Typically, this community is a large real estate, commonly known as a town community, where people live privately on their own and do not trust any strangers. At the beginning, the researcher has made a community approach plan by using an official format asking staff represented at the real estate sale office for the information. Also Community Development Official from Putthamonthon district, Nakhon Pathom province and from Nakhon Chaisi district, Nakhon Pathom province. And from the data base of

Putthamonthon Community Research and Development Project<sup>\*</sup>. The information that can be sought of the general public and the important persons are likely limited due to

1. The information that can be sought from the real estate sale office (which now we called “the employer”) are the community of the study area is of a large real estate village size located and governed under three villages to name under Moo A and Moo B of Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province and Moo C of Lan Takfa sub-district, Nakhon Chaisi district, Nakhon Pathom province. The real estate has started its construction in 1994 and partly completed in 1997 (Phase 1: covered the area of Moo A Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province which we shall called zone 2<sup>\*\*</sup> and the area that covers Moo C Lan Takfa sub-district, Nakhon Chaisi district, Nakhon Pathom province which we shall called zone 3 ) The construction itself is slow down at one stage due to an economy crisis in Thailand in 1997 which effects group of employers at the time. Later on when employer is able to amalgamate funding, the construction resumed until its completion in 2000 (Phase 2: covered the area of Moo B Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province which we shall called zone 1) have altogether 1,420 units. There is a problem to form the Village committee Board in this community. (the detail will be presented in chapter V). This of course makes it impossible for the researcher to officially approach the leaders. A new approach is to look for natural leaders which are accepted

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\* Originated from group of Scholars in various fields from Mahidol University, Salaya together with sponsored fund from Mahidol University during 1998-2002 with the objective to develop community organization (Civil society movement) within Putthamonthon Community Nakhon Pathom Province in order for the public within the community to self study and managed by themselves. ( More details from Nawarat Phlainoi (2002) Putthamonthon Community Research and Development Project. Bangkok: P.A.Living Printers Ltd.)

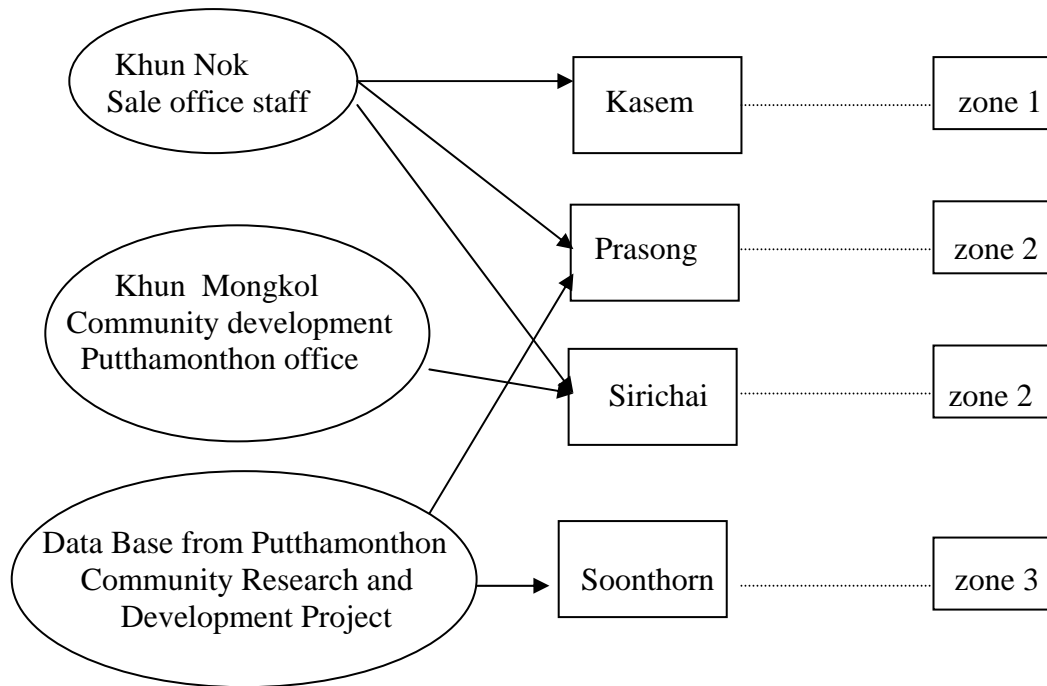
\*\* Please see sketch map of the study which are divided into 3 Zone as follows:  
 Zone 1: Housing Units situated in area of Moo B of Maha Sawat sub-district, Putthamonthon District, Nakhon Pathom Province total 508 units  
 Zone 2: Housing Units situated in area of Moo A of Maha Sawat sub-district, Putthamonthon District, Nakhon Pathom Province total 289 units  
 Zone 3: Housing Units situated in area of Moo C of Lan Takfa sub-district, Nakhon Chaisi District, Nakhon Pathom Province total 623 units

by the community. By asking staff from the Employer office to recommend suitable names. From which we received 1-2 names from each area. As far as the information of the community is concerned, we received only the buyers names. There is no other information being available on the community. From this issue it seems that there is a limitation concerning the evaluation of the community. However, on the other hand as far as the researcher is concerned she is seeking for people participation from the area. From this issue she can create a new approach in stimulating the community to be doing something together.

2. The layout of this community located in the area of three governed villages as the aforementioned. The community data base which are received from the Community Development Official at Putthamonthon district and Nakhon Chaisi district, Nakhon Pathom province is not very helpful as we would like it to be. The main reason is that no specific information can be sought from the study area. Most of the district data concerned of general information in the area. However, there is one useful information, which the researcher can use as approach to enter the community. That there was a tenant living in the study area came for an advice on how to form a Saving Account Group by the end of year 2003. However, they have not known the progress made on such occasion. The researcher pursues on that information and finds out that they form the Saving Account Group from the people living in zone 2 and named the saving group as “Friends Helped Friends” and given the chairman name to our researcher. From which the researcher has collected such information to be used later on when selecting for key informants.

3. From Putthamonthon Community Research and Development Project database, it is found that there are 3 representatives from the study area attending the project in 2003. The researcher has collected their names and addresses to be used in selecting key informants also.

Names of potential key informants that are collected from three different sources. After the researcher verified such information, and decided to establish 1-2 key informants from three different zones with their paths as follow (all names are pseudonym)



### 1.1.2 Approaches into the community

The objective of this phase is getting to know and building rapport with key informants, by exchanging ideas, experiences and explaining the objective of the research. At the same time, they were asked to recommend personnel to join this activity as community researcher.

Having received list of four key informants from three different sources as already mentioned, the researcher has approached the community to conduct personal survey, by starting a meeting with Khun Nok from the employer office. The researcher has received the addresses of 4 key informants on November 1, 2003 together with a map of all housing units as well as the addresses of all the buyers on November 10, 2003. From which meetings are conducted with 4 key informants as follows:

1. Meeting Khun Prasong, key informant zone 2 on Nov.10, 2003
2. Meeting Khun Kasem, key informant zone 1 on Nov.15, 2003
3. Meeting Khun Sirichai, key informant zone 2 on Nov.16, 2003
4. Meeting Khun Soonthorn, key informant zone 3 on Nov.21, 2003

Main topics of the conversation between key informants and the researcher is to introduce the researcher and explaining reasons in making the research, as well as reason for choosing the village as studying ground and asking for way in which to conduct the research in the area. Key informants are asked to acquire more people to join in the research. The 4 key informants are most interested in what the researcher is studying as the issue directly concerned them and yet being overlooked. At the same time the community is lacking of the basic data that can be used to develop its community systematically. (as already mentioned) The researcher explained that studying the development of people quality of life indicators will help to create understanding, by learning from each other and how to bring about useful activity for its community. Not only we exchanged ideas between us, key informants also recommended some useful working tips as follows:

- Issues of interest in the process of developing the people quality of life indicators by PAR had been intended that the process will be as a tool to create learning for people, though the 4 leading informants are interested in the issue but it does not mean that it will finalize the needs of common people in the area of studies. It requires testing the issue whether target people have been interested. (This issue has been checked by the researcher and the community researchers to find and to evaluate the community problems applying PRA techniques during the first meeting for well preparation, which will further be discussed)

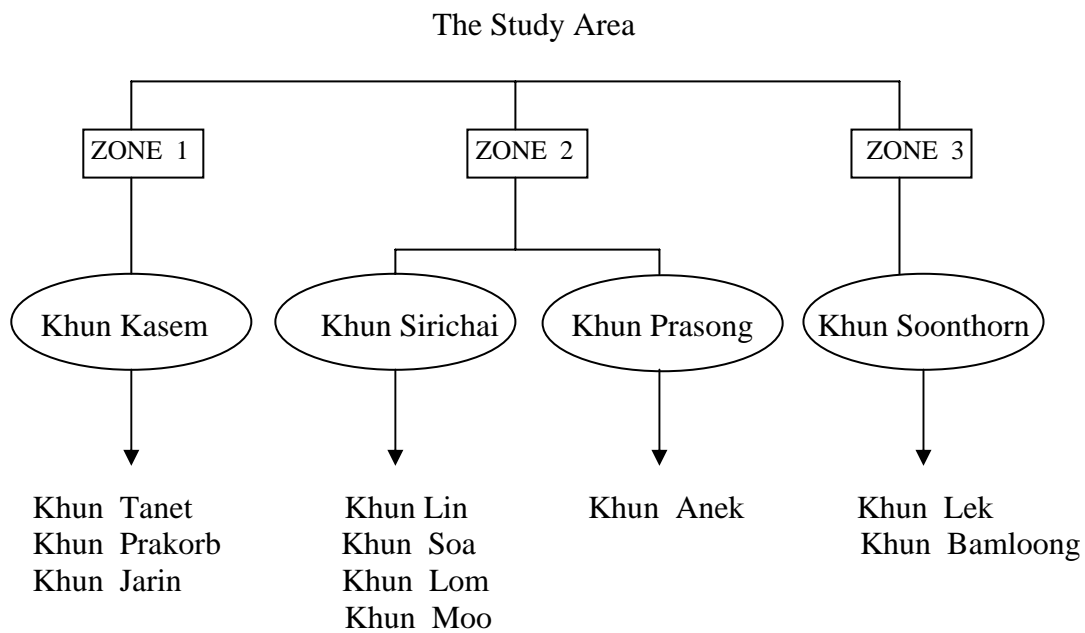
- The issue concerning readiness of people in the community. The study area being a large size community is potential with its readiness together with the understanding of the people on development. From the experience of Khun Prasong / Khun Kasem both are ex-appointed village committee members by the employer during the period prior to become registered real estate. At present both of them have already resigned from their post and do not wish to apply any further. The past problem concerning the community is varied and there is no activity in getting the whole community together. With one exception, the New Year party, however, the party is not for all the community getting together but being held separately with small group of friends. At present there is only one group activity to talk about and that is the Saving Account Group in the area of zone 2. The research work should therefore, start from here.

- Majority of the people living in the community find very little time, and preoccupy by every day work. Some are civil servant, others are employees in Bangkok and children go to school. During the day, one will find elderly people, housewives and shopkeeper in the community. The only practical spare time for everyone to be doing some activity together is during Sunday afternoon toward evening period. ( Khun Soonthorn / Khun Sirichai )

- Working on the research for the entire community all at the same time is very difficult because of a large size village. It should be by zone and start with the zone that is best ready , and the rest ( Khun Sirichai / Khun Soonthorn )

Key informants are all willing to introduce more people to join at the next meeting in order to start working with the community research, and to establish courses of action for the community research itself. The meeting is set for both key informants and newcomers on Sunday, December 14, 2003 at 15.00 hours, at the public area next to soi (or lane) 35 (located between the area of zone 2 and zone 3)

List of key informants introduce newcomers at the meeting are as follows (all names are pseudonym)



## 1.2 Preparation for community readiness

Preparation for community readiness is conducted twice by using unofficial staged meeting technique. The first meeting is to explain the objective of this research for all representatives from three zones. The second meeting is to explain the objective to members only from zone 2 as the research has started with this zone.

### 1.2.1 The first meeting of preparation for community readiness

16 people have attended the first meeting included three Key informants (Khun Prasong, Khun Sirichai, Khun Kasem) They in turn introduce eight persons ( Khun Tanet, khun Prakorb, khun Soa, Khun Moo, Khun Lom, Khun Lin, Khun Lek and Khun Bamloong) Three Members of the Saving Account Group (introduced by Khun Sirichai) They are Khun Jiab, Khun Somchai and Khun Suvipha, the researcher and his assistant help recording the meeting.

The venue of the meeting is organized at the public area next to soi 35 on Sunday December14, 2003 at 15.00 hours by applying PRA technique and informal meeting.

The objectives of the meeting are 1) to introduce the research work and its objective for all attendants and discuss on course of action in working together, 2) getting to know by building rapport between group of key informants / people introduced by them and the researcher / recorder (which from now we shall called “community researcher”)

The steps of the meeting:

1. First part of the meeting is to explain the researcher work by starting with Khun Prasong introducing the researcher and his recorder. After which the researcher briefed details of the research work and on PAR

2. Having understand principles of research, The researcher and the participants have discussed on research issues by analyzing the community conditions and its problems (PRA techniques). It is found that the community meets many

problems particularly the conflicts with the company about the public utilities and the community management as well the relation among community people is unlikely because of no common activities, problems of knowledge/ community data, which are uncollected. The researcher and the key informants suggest that solving different problems of community requires instrument for solution. Therefore, research conducting within the community in collaboration with community should be an agenda and the process to be as an instrument for the community to practice and to learn from actual action for solving one's problem in the future. Khun Prasong, a key informant has proposed the researcher's previous proposal about developing the quality of life to be the agenda for the community research. Then the participants fully raise inquires on methods and additional procedures to their satisfaction and make common agreement that this agenda will be adopted for the community research. Later, all participate in planning and identifying common ways of conducting. The main topic of meeting covered the following area, that zone which is best ready will start with conducting the research including zone activity as well as duration of such activity, responsible person. Volunteers being the community researcher will be responsible for coordination with all concerned. The following is the initial outcome of the meeting:

- The research work on development of people quality of life indicators will be responsible by seven persons including Khun Sirichai, Khun Soa, Khun Lin, Khun Lom, Khun Moo from the area of zone 2, Khun Kasem from the area of zone 1, and Khun Bamloong from the area of zone 3. The remainders although not volunteering as community researcher, however, are willing to help the group activity as time permits.

- The research work on development of quality of life indicators will be conducted in the area of zone 2, starting with the Saving Account Group.

- The area of zone 1, 3 will be used for testing the development of quality of life indicators by representatives from other two zones (Khun Tanet, Khun Prakorb from the area of zone 1, Khun Bamloong and Khun Lek from the area of zone 3). All will attend all phases of the research in order to learn from each other and to later implement to their area.

- The next research session will start by explaining the objective of target research group. This case is Saving Account Group in the area of zone 2 from which Khun Sirichai, a key informant and volunteers of community researcher will be responsible to coordinate members of Saving Account Group and to co-chair the meeting with Khun Soa, Khun Lin, Khun Lom and Khun Moo. The meeting date was set to coincide with Saving Account Group activity day (activity will be organized in the morning). Usually, the activity is normally being planned during the first Sunday of each month with exception of long weekend holiday. The meeting will then be postponed to next Sunday. For the next month such date available is on January 11, 2004 at 15.00 hours with the meeting venue to be organized at a pavilion next to inspectors post in the area of zone 2

#### 1.2.2 The second meeting of preparation for community readiness

19 persons attended the meeting to include seven community researcher ( Khun Sirichai, Khun Soa, Khun Lin, Khun Lom, Khun Moo, Khun Kasem and Khun Bamloong ) represented zone 1, 3 (Khun Tanet and Khun Lek ) and eight members from the Saving Account Group, the researcher and the recorder.

The venue of the meeting is being organized at a pavilion next to inspectors post in the area of zone 2 on Sunday, January 11, 2004 at 15.00 hours using meeting technique and interview.

The objectives of the meeting are 1) to introduce research work and its objective, and discuss how to choose courses of action in working together, 2) building rapport between the researcher, community researcher and all those attending the researcher.

First part of the meeting is to explain the researcher work by starting with Khun Sirichai introducing the researcher, community researcher and all attendants. After which the researcher explained about the research, its past performance and reason for selecting the Saving Account Group and the area of zone 2 as the initial ground for conducting the research. Questions are asked on the ground of choosing the Saving Account Group as a target group. All concerned help in

answering the question satisfactory. Having understood research principles, its objective and research courses of action, they decided to make future plan on the issue of appointing community working organization on how to continue and what approaches to take, as summary follows:

- In order to promote the role and leadership quality of community researcher and research working in the area, the researcher has to conduct the initial staged meetings later she will act only as facilitator and monitor the staged meeting. The community researcher will then take over including organizing the meeting, deciding the meeting techniques, its date, time and venue., with exception on the topic which required by agreement between community researcher and the researcher.

After meeting with the target group both community researcher and the researcher continue their meeting by consulting issue of the next meeting. The researcher assistant / recorder decline from the meeting to interview both Chairman and Secretary of The Saving Account Group for a brief history of “Friends Help Friends” adding to information on cooperation among its members for future activity planning.

Community researcher recommends that if a large staged meeting is organized it will have to wait for some time before people living in the community is ready for it. Limitations for members of the community are that most of them are civil servants, employee working for private company in Bangkok. Therefore it is difficult for them to be available at the same time except for Sunday. Some may have to go up country for an official duty causing their work to slow down. Some members can not attend every meeting and will probably lose some interest from it. Therefore when organized working activities, they should divide into small activity groups, making sure that it will cover the target area (especially zone 2) using night time of weekdays and not having to be only at weekends. By assigning community researcher to look for their own team, assistants should cover the whole area in every soi (zone 2 has altogether 11 soi such as soi 29, 29/1, 29/2, 29/3, 29/4, 30, 31, 32, 33, 34 and 35). Community researcher should organized its activity to cover the area around their home. By organizing it in soi or 1-2 soi joining their activities together. With this way, more members of the community can join in the activity. Community researcher can

exchanged its activity results with each other by talking about them at a staged meeting.

Considering using a public staged meeting, it should be used for decision making. In this way it will not consume much time from its members of the community. A public staged meeting can be the same date as the Saving Account group activity day or other date which can be determined later. This agreement can be placed on a trial basis first to see whether it will work or not. Should there be any problem concerning of same, such matter will then be discussed by researcher team (the researcher and community researcher) thus making the research cycle become more perfect. This will facilitate those attending the meeting to fully understand the research work. Majority of the researchers understand the issue and responsibilities given to the following community researcher:

Khun Lin	to run activity in the area of soi 29, 29/4 and 30
Khun Soa	to run activity in the area of soi 29/1- 29/3
Khun Moo	to run activity in the area of soi 31- 32
Khun Lom	to run activity in the area of soi 33
Khun Sirichai	to run activity in the area of soi 34 - 35

The person who is organizing the activity will be responsible for his/her own area and act as main coordinator. They will inform other researcher of the activity so that they all can render some help.

From the agreement at the meeting between the researcher and community researcher as already mentioned, all activities in the area is running in accordance to the agreement. The activity is aimed at finding out the true meaning of “quality of life” and its structure at the first instant. The meeting will be called when community researcher and the researcher are ready .The activity for finding out the true meaning and its structure of quality of life have been staged altogether seven times (to six small group session and one complete staged meeting).

## **2. Seeking meaning and factors of quality of life**

Considering issue on development of quality o life indicator as a mean in assisting individual quality of life, one must start concentrate at “quality of life” in so

far as to what people think about it. Different people think differently it and one of basic research principle of Board Perspective requires real participation from the people. Therefore, people should play the role to define the meaning of “quality of life ” themselves.

During this phase the researcher team have agreed upon that community researchers should take the lead in running the activities in seeking for the meaning and its factors of quality of life altogether seven times. To six small group session and one complete staged meeting.

First session:	on	January 22 , 2004	at soi 34-35
Second session:	on	January 25 , 2004	at soi 29, 29/1-4
Third session:	on	February 3, 2004	at soi 32
Fourth session:	on	February 8, 2004	at soi 30
Fifth session:	on	February 20, 2004	at soi 33
Sixth session:	on	March 7, 2004	at soi 31
Seven session:	on	March 21, 2004	complete staged meeting

### **2.1 First session in seeking for the meaning and factors of “quality of life” (soi 34-35)**

A small group meeting conducted by community researcher of the area. The session is on January 22, 2004 at 19.30 hours, the venue being at a shop house head of soi 35 the objective is to find out the meaning and factors of quality of life by using unofficial group conversation technique. There are 13 persons attended the activity to include members from soi 34 and soi 35 total 7 persons (3 women 4 men) 3 Community researcher ( Khun Sirichai, Khun Soa, Khun Bamloong) represented zone 1,3 (Khun Prakorb and Khun Lek) with the researcher. Khun Sirichai (Area community researcher ) is responsible for conducting the session.

The activity start off by Khun Sirichai make the opening remark by explaining the objective of the session, then he asks all attendants to introduce themselves by informing their age, education background, profession .He has asked each of them to give their own version of the meaning and its structure of quality of life. Using two main questions as follows:

- 1) As participator what do you think about quality of life or good living?
- 2) What do you need to have or with what value factor require in order to attain “quality of life” or “good living”?

The said questions are asked by community researcher to all participants from soi 34-35 total 7 persons by starting with the first question going all the way through . Then with the second question right the way through in the same manner. The researcher make a final round up for all participants. The conversation take two hours to complete.

The final outcome of the session from 7 participants is as follows:

The meaning of “quality of life”

- Living the life with commonly known four factors and to have good job
- Living well, enough to eat and children go to good school
- Living with good society, caring for one another, equal education/income
- Happily living in good society, with good thought, caring for other people
- Eating well , living well with good healthy environment

Factors of quality of life can be sum up into 7 categories

- education
- profession / income
- family
- living factor
- security
- good society
- heath / fitness

Observation made from group session

1. During the beginning of the meeting people is very much reserved, for there are some strangers among the group with newcomers that they are unfamiliar

with (the researcher and representative from zone 1, 3). After a while people attending the meeting start feeling comfortable among person that they already know, starting to make joke and stimulate themselves in the meeting .After the moderator ordered light refreshment / drinks during their conversation it makes the atmosphere much easier as if they are having party among friends.

2. Majority of participants has same education background, from under graduate to bachelor degree level aged between 30-35 with private own business and civil servant and using group conversation technique.

3. Timing used for conducting the meeting fit all, as they are away from family routine and daily work. Together with perfect atmosphere as already mentioned in No.1: conversation goes on smoothly. After the researcher leaves the community, the meeting still carrying on smoothly, for most of the people feel that such activity benefit them. It gives opportunity for people living in the same community to exchange their ideas and have good relationship among themselves.

## **2.2 Second session in seeking for the meaning and factors of “quality of Life” (soi 29, 29/1-4)**

A Small group meeting conducted on January 25, 2004 at 15.00 hours, the venue being at a food shop next to 5nspector post, the entrance of zone 2 .The objective is to find out the meaning and factors of quality of life and still using unofficial group conversation technique. For the technique give such good result during the first session. There are members from soi 29 and soi 29/1-4 giving a total of six persons.(4 women, 2 men) 3 community researcher (Khun Moo, Khun Soa, Khun Lin) zone 1,3 representatives (Khun Jarin, Khun Lek) and the researcher. The moderator of the meeting are Khun Soa and Khun Lin (Area community researcher).

The activity itself is run in the same way as of the first session, which has Khun Sirichai responsible for the meeting. Khun Soa and Khun Lin make the opening remark alternately explaining objective for the conversation meeting, after which they asked all attendants to introduce themselves. Giving their age, education and profession. Each participant is asked to give their own version of the meaning and its structure of quality of life using two main questions as follows:

- 1) As participant, what do you think about “quality of life”?
- 2) What do you need to have or with what value factor require in order attaining the “quality of life” or “good living”?

However there are some differences between the first and second meeting. The first meeting participants have almost the same education background and age group, majority have their own business (6 persons) and one civil servant official. The meeting itself is successful and flowing. Communication between moderator and participants is good. With the second meeting, majority of participant have lower level of education, in that 4 persons are at Phathom 4 level, one person at Phathom 7 level and one is at M.S.3 level. There are four female attended the meeting, all are housewives and elderly people age between (42-50). The conversation is at slow pace as they need more time to understand the objective of the meeting. They are shy and not willing to speak confronted with other people. After the first person make a comment in replying to the first question, (first one being male) all people that follow him will also make the same statement, that is “I think the same”. So there is very little difference in giving answer to the questions. After a while the researcher team has to make some adjustment with this group by making each member of the research team to pair up with individual attendee. In this way it is one on one basis interview and they will not be so shy when giving their answer.

The final outcome of the second session from 6 participants is as follows:

The meaning of quality of life

- Have feeling for rendering help and to help one another
- Ideal family
- Good living condition
- Healthiness

Factors of quality of life can be sum up into 4 categories

- Secure living
- Healthiness and good mind
- Secure environment
- Good family and good offspring

### **2.3 Third session in seeking for the meaning and factor of “quality of Life ” (soi 32)**

A small group meeting in seeking for the meaning and its structure of quality of life is conducted on February 3, 2004 at 20.00 hours, the venue being in front of Khun Moo house, who is a community researcher responsible for the area mentioned. There are 16 persons joined in the activity including members from soi 32 making total of 10 persons (3 female, 7 male) 3 community researchers ( Khun Moo, Khun Sirichai, Khun Lin) representatives from Zone 1, 3 ( Khun Prakorb and Khun Bamloong ) and the researcher. The moderator is Khun Moo.

With lesson learn from the two previous meeting, the researcher team decided to augment data collection technique coinciding with the target group. Therefore, before the meeting the researcher team has decided that while Khun Moo is introducing participants, other researcher team members will help in identifying the character of each participant in order to establish ways to be used for data collection technique. Data collected during an introduction part of the meeting is 3 female 7 male participants. The lowest age is thirteen years and the highest being forty-six years old. Five are employees and two merchant, three students. From the information collected, researcher team decided to divide the meeting into two groups. Reason is that ten people discussing in activity group is too large and will take longer time. In this case it will be late into the night before the session is over. Splitting into two groups using cluster principle.

Group 1: Five people are participating in this conversation group including two females, three males. One is a student, three are employees, and one is a merchant. The moderator is Khun Moo. Recorder is Khun Lin. Observer from zone 3 is represented by Khun Bamloong, with a total of eight persons.

Group 2: Five people is participating in this conversation group. To one is female and four are males. Two are students, two are employees, and one is a merchant. The moderator is Khun Sirichai, recorder is the researcher with an observer from zone 1 represented by Khun Prakorb with a total of eight persons.

Each group divide and conduct their own meeting. After they have their discussion, the two groups joined together for the summary. The final result being likely the same as the first two sessions as follows:

The meaning of “Quality of life”

- Family harmony
- Healthy spirit
- Physical healthiness
- Possessing everything with no outstanding payment
- Happiness that can not be found
- Living well ,employment, no worrying in the mind
- Living happy life each day

Factors of quality of life can be sum up into 6 categories

- Education
- Family harmony
- Willing to give for society
- Feeling one for all in the community, helping one another
- Happiness of mind
- Profession and secure income

#### **2.4 Fourth session in seeking for the meaning and factors of “quality of Life” (soi 30)**

A small group meeting is organized on February 8, 2004 16.00 hour. The venue for the activity is in front of Khun Lin house (community clinic) of whom is community researcher represented the area. Khun Lin is also responsible for session 4 meeting. There are a lot of people attended the meeting the third session. Reason being that in this area there are two-community researchers represented the area. Khun Lin and Khun Sirichai managed to gather 15 persons to attend the activity. They are members from soi 30 (10 persons) (5 females, 5 males) 3 community researcher (Khun Lom, Khun Sirichai, Khun Lin) Khun Tanet represented zone 1 plus the researcher and moderators are Khun Lin and Khun Sirichai.

On account of number of participants is equal to the 3<sup>rd</sup> meeting, the research team as collected data similar to the previous one by dividing them into 2 groups. The activities have been similarly organized, i.e. before splitting into 2 groups, the team has prior agreed that during Khun Lin and Khun Sirichai help each other as first part like introducing participants while other research team members observed each individual traits to decide grouping. From self-introduction, it was found that there are 5 females, 5 males with lowest age at 20 years and the highest age is 42 years. Their occupations are 4 employees, 2 merchants, 1 housewife, 1 civil servant, 1 state enterprise employee and 1 student. They were divided as follows:

Group 1: there are 5 participants containing 2 females, 3 males with occupations are 1 student, 2 employees, 1 merchant, 1 civil servant, and the moderator is Khun Lin, the recorder is the researcher with Khun Tanet an observer from Zone 1. Total members are 8 persons.

Group 2: there are 5 participants containing 3 females, 2 males with occupations are 1 employee, 1 state enterprise employee, 1 housewife, , and the moderator is Khun Sirichai, the recorder is Khun Lom.Total members are 7 persons.

Each group split to conduct their meeting to define meaning and factors of quality of life. Findings are commonly summarized, which it is found that both groups have similar opinions. Meanings of the quality of life are more diversified than the past meetings and they are more details. It might have been that participants were more familiar with community researchers and all are members of the Saving Account Group, which 2 community researchers (Khun Sirichai and Khun Lin) are the committee members. It makes them courageous to express their comments. The factors of the quality of life, classification of factors are similar to the 1-3<sup>rd</sup> meeting. Additional factors are as follows:

The meaning of “quality of life”

- Wealthy income, warm family, good environment, harmonious neighbors
- Happy family, empathy, balance income and expenses
- Well being, wealthy income, warm family, good neighbors

- Well being, good environment and society, narcotic and immorality-free
- Well being, no needy, good family, physical and mental healthiness, being in happy society and not troubling others
- Body and mind happiness, good spirit, good family, good society and environment, spending life for common good
- Occupation, Employment, raising children with good education, and making the family happy
- Warm family, adequate income for spending, harmony in family and society, healthiness
- Healthiness, happy family, employment, money for spending, sustainable living, good environment

#### Factors of quality of life

- Education
- Occupation/ income
- Family
- Neighbor
- Society
- Physical and mental health
- Environment
- Security of life and property
- Social rules
- Adequacy
- Transport communication

### **2.5 Fifth session in seeking for the meaning and factors of “quality of life” (soi 33)**

The 5<sup>th</sup> session has been organized on February 20, 2004 at 19.00 hours. The venue is in front of a minimart Zone 2. There are 10 participants containing 6 members of soi 33 (4 females and 2 males), 3 community researchers (Khun Lom., Khun Soa, Khun Bamloong) and the researcher. Khun Lom is the moderator.

Techniques of group discussion is similar to the 1st meeting to seek the meaning and its factors of “quality of life”. Climate of discussions, moderator, place and participants are likely similar to the 1<sup>st</sup> meeting.

The moderator (Khun Lom) is considerably familiar with participants, humorous, clear communication and starts with joking with members, arousing conversations and the it was informal with ease.

The place is a convenient store (community minimart) where beverage and snacks could easily be ordered to create climate of familiarity during discussions.

Participants have relative education and age, i.e. senior secondary level and vocational certificate with ages between 30-37 years. Perspectives to the questions are concluded as follows;

#### The meaning of “quality of life”

- Well being principles of living, and empathy
- Highly educated, and stable occupation
- Warm family, stable status, sound knowledge, and good environment
- Comfortable, clean environment and adequate means for living, stable employment and proud of it
- Well living, employment, warm family and adequate money for spending

#### Factors of quality of life

- Surrounding social acceptance
- Sustainable living and self realization
- Education
- Income
- Environment
- Life adequacy
- Family

## **2.6 Sixth session in seeking for the meaning and factors of “quality of life” (soi 31)**

The 6<sup>th</sup> session has been organized on March 7, 2004 at 14.00 hours. The venue is in front of a minimart Zone 2. There are 13 participants containing 6 members of soi 31 (3 females and 3 males), 3 community researchers (Khun Moo, Khun Lom, Khun Sirichai and Khun Soa) and the researcher. Khun Moo is the moderator.

Techniques of group discussion are similar to the 5<sup>th</sup> meeting. It was found that selecting any techniques for data collection required proper readjustment with the target groups. The research team has always fulfilled this technique. It is so to this meeting. From collecting data on characteristics of age, education, and occupation, and during the community researcher (Khun Moo) has introduced the first step, It was found that 6 participants of 2 females and 1 male, they are likely elder (57-66 years) and their education is different from others with unconfident introducing themselves, and fear to speak. The research team fears that had they been in one group they would have feared to comment. So, they were split to another group. Interview technique is applied to them by one-on-one. (interviewers are Khun Sao, Khun Lom and Khun Sirichai). At the meantime, the rest 3 participants with being employees and merchant, they earn relative education with vocational certificate and pre-bachelor degree. Therefore, they are split into another group and moderated by Khun Moo. Other research team members record data and all were brought for summarization. Perspectives to the questions are concluded as follows;

The meaning of “quality of life”

- Living with facilitating basic means, security of living, healthiness and good public utilities
- Adequacy of the four basic means
- Adequacy of education, good family, stable income, and good environment
- Good living in all aspects such as money, education and returns for social
- Well being, employment, and warm family
- Good food, well being, healthiness and good environment

### Factors of quality of life

- Stable income
- Security of life
- Education
- Environment
- Family
- Strong community

## **2.7 Seventh session in seeking for the meaning and factors of “quality of life”**

The final activity to seek meaning and factors of the quality of life was an opened floor to summarize the activity outcomes and finding of six meetings for all to acknowledge, it was organized on March 21, 2004 at 15.00 hours. The venue is close to the inspector post of the village along Zone 2. There were 26 participants containing 17 community members from Zone 2, 5 community researchers (Khun. Sirichai, Khun Soa, Khun Lin, Khun Moo, and Khun Bamloong), 2 representatives from Zone1 and 3 (Khun Tanet and Khun Prakorb), the researcher and a recorder assistant.

After organizing 6 subgroup meetings to seek meaning and factors of the quality of life, covering Zone 2, which is the pilot project, the research team collects all the six meeting results for summary together and disseminates to the community members for acknowledgement. It is to prepare information for an opened floor meeting to select factors and to identify the quality of life indicators for the next step. Findings of meaning and factors of quality of life from six sub meetings are shown in Table 6

**Table 6:** Meaning and Factors of Quality of Life from Six Sub-meetings

Activities	Defining	Factors
1	<ul style="list-style-type: none"> <li>- Living the life with commonly known four factors and to have good job</li> <li>- Living well, enough to eat and children go to good school</li> <li>- Living with good society, caring for one another, equal education/income</li> <li>- Happily living in good society, with good thought, caring for other people</li> <li>- Eating well , living well with good healthy environment</li> </ul>	<ul style="list-style-type: none"> <li>- Education</li> <li>- Profession / income</li> <li>- Family</li> <li>- Living factor</li> <li>- Security</li> <li>- Good society</li> <li>- Heath / fitness</li> </ul>
2	<ul style="list-style-type: none"> <li>- Have feeling for rendering help and to help one another</li> <li>- Ideal family</li> <li>- Good living condition</li> <li>- Healthiness</li> </ul>	<ul style="list-style-type: none"> <li>- Secure living</li> <li>- Healthiness and good mind</li> <li>- Secure environment</li> <li>- Good family and good offspring</li> </ul>
3	<ul style="list-style-type: none"> <li>- Family harmony</li> <li>- Healthy spirit</li> <li>- Physical healthiness</li> <li>- Possessing everything with no outstanding payment</li> <li>- Happiness that can not be found</li> <li>- Living well, employment, no worrying in the mind</li> <li>- Living happy life each day</li> </ul>	<ul style="list-style-type: none"> <li>- Education</li> <li>- Family harmony</li> <li>- Willing to give for society</li> <li>- Feeling one for all in the community, helping one another</li> <li>- Happiness of mind</li> <li>- Profession and secure income</li> </ul>
4	<ul style="list-style-type: none"> <li>- Wealthy income, warm family, good environment, harmonious neighbors</li> <li>- Happy family, empathy, balance income and expenses</li> <li>- Well being, wealthy income, warm family, good neighbors</li> <li>- Well being, good environment and society, narcotic and immorality-free</li> <li>- Well being, no needy, good family, physical and mental healthiness, being in happy society and not troubling others</li> <li>- Body and mind happiness, good spirit, good family, good society and environment, spending life for common good</li> <li>- Occupation, Employment, raising children with good education, and making the family happy</li> <li>- Warm family, adequate income for spending, harmony in family and society, healthiness</li> <li>- Healthiness, happy family, employment, money for spending, sustainable living, good environment</li> </ul>	<ul style="list-style-type: none"> <li>- Education</li> <li>- Occupation/ income</li> <li>- Family</li> <li>- Neighbor</li> <li>- Society</li> <li>- Physical and mental health</li> <li>- Environment</li> <li>- Security of life and property</li> <li>- Social rules</li> <li>- Adequacy</li> <li>- Transport communication</li> </ul>

**Table 6:** Meaning and Factors of Quality of Life from Six Sub-meetings (cont.)

<b>Activities</b>	<b>Defining</b>	<b>Factors</b>
5	<ul style="list-style-type: none"> <li>- Well being principles of living, and empathy</li> <li>- Highly educated, and stable occupation</li> <li>- Warm family, stable status, sound knowledge, and good environment</li> <li>- Comfortable, clean environment and adequate means for living, stable employment and proud of it</li> <li>- Well living, employment, warm family and adequate money for spending</li> </ul>	<ul style="list-style-type: none"> <li>- Surrounding social acceptance</li> <li>- Sustainable living and self realization</li> <li>- Education</li> <li>- Income</li> <li>- Environment</li> <li>- Life adequacy</li> <li>- Family</li> </ul>
6	<ul style="list-style-type: none"> <li>- Living with facilitating basic means, security of living, healthiness and good public utilities</li> <li>- Adequacy of the four basic means</li> <li>- Adequacy of education, good family, stable income, and good environment</li> <li>- Good living in all aspects such as money, education and returns for social</li> <li>- Well being, employment, and warm family</li> <li>- Good food, well being, healthiness and good environment</li> </ul>	<ul style="list-style-type: none"> <li>- Stable income</li> <li>- Security of life</li> <li>- Education</li> <li>- Environment</li> <li>- Family</li> <li>- Strong community</li> </ul>

Re-categorizing factors of the quality of life allowing participants to comment and help classifying factors from the entire existing data but factors are not finalized because of time constraints and some participants have to fulfill household duties. All participants agreed that an opened floor would be organized to classify the quality of life indicator in the next meeting. The appointment has been fixed on April 18, 2004 at 14.00 hours, with venue near the inspector post, Zone 2.

Results of categorizing of the quality of life contained 9 factors, i.e.

1. Economic factors
2. Educational Factors
3. Family Factors
4. Health Factors
5. Social and Community Factors
6. Environmental Factors
7. Leader Factors

8. Spiritual Happiness Factors

9. Security Factors

### **3. Selection of factors and identification of quality of life indicators**

The activity of selecting factors and indicators of quality of life had been the informal opened floor meeting. It continues from the activity of summarizing the seeking of meaning and factors of quality of life. The participants have concluded them into 9 factors. Some comment that some factors are less vital to the quality of life. A meeting has been set to select better factors again and to identify the quality of life indicators to each factor.

The meeting has been organized on May 18, 2004 at 14.00 hours venue near the inspector post; Zone 2. There are 21 participants and most are the same participants who have summarized results of meaning and factors of quality of life, which was organized on March 21, 2004. They are 12 community members from Zone 2, 2 community researchers, (Khun Sirichai, Khun Soa, Khun Lin, Khun Moo, and Khun Bamloong), 2 representatives from Zone 1 and 3 (Khun Tanet and Khun Prakorb), the researcher and a recorder assistant.

The researcher and the community researcher help to moderate the meeting because this phase had been prolong almost a month after the last meeting. It begins from revisions of what has been accomplished, findings, conclusion and activities to be resumed. When agenda of selection process of meaning and factors of quality of life has been introduced by demonstrating the chart of conclusions with 9 classification containing 1) Economic factors, 2) Educational Factors, 3) Family Factors, 4) Health Factors, 5) Social and Community Factors, 6) Environmental Factors, 7) Leader Factors, 8) Spiritual Happiness Factors, and 9) Security Factors, allowing all participants comment with hand-votes.

Criteria of selection on factors of the quality of life by hand-vote had been agreed among participants that any factors gained less than 20% of votes from participants (included the community researchers) it will be deleted.

From the above criteria, and during the meeting, it was found that only the leader factor gained below 20%. Therefore, all the other 8 factors have been retained by dropping the leader factors. Further step is raised whether to keep the same names or should they be readjusted. Participants proposed that some factors could be dissolved into one factor and re-named such as economic factor, educational factor and so on. What is vital to life might have been changed into the life assurance factors and so on.

Results from the meeting of selecting factors of quality of life and the selection and consider readjusting the names of the factors, they are 6 factors, i.e.

1. Life assurance factors (grouping economic and education)
2. Body and mind factors (previously from health factor)
3. Family Factors
4. Environmental Factors
5. Social Factors
6. Spiritual Happiness Factors

After gaining quality of life factors, the next step is to allow participants in the research to identify proper words or phrases related to quality of life applying technique of Yongyuth Kajorntham and Aphisit Thamrongvarangkoon (2000: 16-18). It allows participants freely identify their own idea. When participants identify proper words or phrases related to quality of life, they will be recorded and disseminate into each factors as shown in Table 7

**Table 7:** Factors and Samples of Words/Phrases Related to Quality of Life

Quality of Life Factors	Samples of Words/Phrases Related to Quality of Life Which Community Members Repetitively Write
Life Assurance	<ul style="list-style-type: none"> <li>- Balance income and expense without debt</li> <li>- Adequate 4 basic means</li> <li>- Good education</li> <li>- Stable occupation and income</li> <li>- Employment and money for spending</li> <li>- Security of life and property</li> <li>- Well living</li> <li>- Well being and without poverty</li> <li>- Stable status</li> </ul>
Strong Mind and Body	<ul style="list-style-type: none"> <li>- Healthiness</li> <li>- Mental healthiness without mental trouble</li> <li>- Physically fit and healthiness</li> </ul>
Warm Family	<ul style="list-style-type: none"> <li>- Understanding and sympathy of family members</li> <li>- Perfect family and presence of family members</li> <li>- Happy family</li> <li>- Warm family</li> </ul>
Environment	<ul style="list-style-type: none"> <li>- Good public utilities (road, water supplies, electricity)</li> <li>- Good environment (clean community, fresh air)</li> </ul>
Social	<ul style="list-style-type: none"> <li>- Neighbors of community spirit</li> <li>- Generosity and helpfulness</li> <li>- Free from narcotics and immorality</li> </ul>
Spiritual Happiness	<ul style="list-style-type: none"> <li>- Pleased with what one owns</li> <li>- Peaceful co-existence and not troubling others</li> <li>- Helpfulness and sharing with other</li> <li>- Social acceptance</li> <li>- Children are learned and employed</li> <li>- Happy</li> </ul>

Words/Phrases reflecting these quality of life indicators have been tested by questionnaire within the community of the study area in Zone 1, Moo B, Maha Sawat

sub-district, Putthamonthon district, Nakhon Pathom province, and Zone 3, Moo C, Lan Takfa sub-district, Nakhon Chaisi district, Nakhon Pathom province, whether these 2 community members most strongly agree with which words/phrases.

Formulating questionnaire for testing and samples are ordinarily considered by the researcher and the community researchers which the community can calculate. Meaning, the criteria to identify samples is as follows (Suthassana Suddhikulsombat, 2003: 4)

15-30 % of samples for hundred populations

10-15% of samples for thousand populations

5-10% of samples for ten thousand populations

On account of exact number of community population in the test areas are unknown; this research has used number of houses to represent population. There are 508 houses in Zone 1, Moo B, Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province, and 623 houses in Zone 3, Moo C, Lan Takfa sub-district, Nakhon Chaisi district, Nakhon Pathom province. Therefore, there are 1,131 houses and by 10-15 %, the samples are 113-170 houses. However, fearing that had sets of questionnaire been relative to the exact number of samples, few would return because some community members live outside the communities during their workdays and will return during their holidays. 400 sets of questionnaire are prepared and 200 sets are disseminated to each community.

## **4. Test of factor, quality of life indicators and develop of weight system**

### **4.1 Testing the quality of life indicators**

A broad perspective approach is applied to test the quality of life indicators. It states that validity of the data needs to be checked by Cross Check and Compare technique. Also Johnstone (1981: 38-39) conceptualizes that there are many techniques to test the indicators, which each technique contains condition and differently appropriates for implementations. Therefore, the proper test technique is depended on target for implementation. In this research the purpose is to build

learning participation and process to increase an individual potentials using the process formulating the quality of life indicators as tool and to study in a specific area. The research team tests the validity from informants who do not participate in the process but live in the same contextual area. Also, a qualitative approach is applied, which is different from the process approach because of limitations on unable to organize all community members to participate in the process.

After gaining words/phrases, which participants identify, the research team develop words/phrase in Table 7 to be questionnaire (details in Appendix) and test them in Zone1 and 3 (Moo B, Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province, and Moo C, Lan Takfa sub-district, Nakhon Chaisi district, Nakhon Pathom province), which words/phrases do community member best agree with. Results of the test from 400 sets of questionnaire, which 141 sets or 32.25% have returned and they were 12.46% of the population (by number of houses). It is relevant to the criteria. Numbers of opinions on the quality of life indicators are mostly relative to the community members. Some provide additional suggestions On account of some words are overlapping and some are relative in meaning, the research team has reset them to reflect and cover words/phrases those members and respondents most comment. The reset words/phrases are rearranged based on most frequency and readjusting them into items or indicators in each factor. There are 16 indicators as shown in Table 8

**Table 8:** Factors and Indictors of the Quality of Life

Quality of Life Factors	Indicators
Life Assurance	<ul style="list-style-type: none"> <li>- liability</li> <li>- adequacy of the 4 basic means</li> <li>- level of education</li> <li>- cases of theft and assaults</li> </ul>
Mind and Body	<ul style="list-style-type: none"> <li>- annual medical check</li> <li>- number of mental sickness patients</li> </ul>
Family	<ul style="list-style-type: none"> <li>- conflict among family members</li> <li>- having warm family, and presence of parents and children</li> </ul>
Environment	<ul style="list-style-type: none"> <li>- having public utilities (road, water supplies, electricity)</li> <li>- collecting litters hygienically and expeditiously</li> </ul>
Social	<ul style="list-style-type: none"> <li>- number of common activities of members/communities</li> <li>- number of addicts/ gamblers</li> </ul>
Spiritual Happiness	<ul style="list-style-type: none"> <li>- household members regularly share public interest</li> <li>- conflict among community households</li> <li>- community groups/ organizations help suffering members</li> <li>- household members are accepted /respected by community members</li> </ul>

Besides testing through informants and different techniques, the researcher has theoretically tested them by comparing with the set of indicator synthesized from the conceptual framework, theories and different researches whether they were relevant to the set synthesized from the theory? (Results will be presented in Chapter V).

#### 4.2 Developing weighing system of factors and indicators

Developing Weighing System is to identify results of weighing significance of each factor and each indicator because each one might not be equal. Weighing helps prioritize each factor and each indicator.

Results of PAR are 6 factors and indicators of the quality of life gained from words/phrases, which participant shared to identify and comment has rearranged an gained new 16 indicators. The next step is to develop the weighing system of the factors and the indicators. The researcher has counsel with the community researchers on what should be implemented. They comment that approaches should be simple not too complicated. Therefore, the dichotomous questions modified from Yongyuth

Kajorntham and Aphisit Thamrongvarangkoon, (2000: 24-28) has been employed. It is simple and fit for community members who are not familiar with statistical calculation so that they could be actually implementation.

The researcher team draft question to weigh factors and indicators by paring each factor and indicators. Zone 2 (Moo A, Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province), which is the pilot project to weigh factors and the indicators identifying group size with simple criteria and to draft questions to test the indicators. Meaning, had the population is hundred (289 houses in Zone 2), the sample is 15-30%. The samples by criteria should be 53-86 samples. The 150 sets of drafted question has been distributed covering Zone 2 who are making comments. It questionnaire returned at 84 sets or 46.7% or 29.6% of the total population. It is relevant to criteria of sampling

Developing Weighing System in this research, it is as follows

1. Weighing the Factors
2. Weighing the Indicators within the same factor

Weighing factors and indicators in 1 and 2 are by weighing factors with dichotomous questions and later weighing indicators by dichotomous questions within each factor. However, not all indicators will be weighed because there are many pairs and the weighing calculation was complicated and improper for developing indicators as being the tools to develop learning for the local people.

Objectives of weighing factors and indicators are to compare how do people in the area of research had dichotomous opinions on factors and indicators within the same factors. It is useful to plan developing / improving quality of life in case the community be necessary to choose some indicators in a factors or some potential indicators and ability of people because indicators might have many levels, which members/ community may develop/ improve the quality of life indicator by themselves.

- 4.2.1 Opinions on comparison of weighing factors and calculating values of weighing factors of quality of life

#### 4.2.1.1 Opinions on comparison of weighing factors

Comparison of weighing factors of quality of life in pair among 15 pairs (each factor is compared 5 times with other factors); 84 members of the pilot area comment as follows: (Table 9)

**Table 9:** Frequency of Respondents on Opinions on Comparison of Weighing Factors

Pair	Paired Factors		More than	Equal/no differences	Less than	Total
1	Life Assurance	Body and Mind	84	-	-	84
2	Life Assurance	Family	38	33	13	84
3	Life Assurance	Environment	68	13	3	84
4	Life Assurance	Social	71	9	4	84
5	Life Assurance	Spiritual happiness	70	6	8	84
6	Body and Mind	Family	7	13	64	84
7	Body and Mind	Environment	25	23	36	84
8	Body and Mind	Social	9	62	13	84
9	Body and Mind	Spiritual happiness	7	72	5	84
10	Family	Environment	72	12	-	84
11	Family	Social	73	8	3	84
12	Family	Spiritual happiness	66	11	7	84
13	Environment	Social	24	52	8	84
14	Environment	Spiritual happiness	16	49	19	84
15	Social	Spiritual happiness	9	63	12	84

#### 4.2.1.2 Calculation on values of weighing the factors of quality of life

##### 1) Criteria of Calculation

Calculation on values of weighing the factors of quality of life among 15 pairs (observed by pair) employs the following criteria of scoring.

- Any factors affecting quality of life more gain            2 marks
- Any factors equally affecting quality of life gain        1 marks
- Any factors less affecting quality of life gain            0 marks

The lowest score of the weighing will used as base for paired-calculation in each factor

2) Examples of Calculations

**Example1:** Factors of Life Assurance

- Paired Factors of Quality of Life between Life Assurance with Body and Mind

Pair	Paired Factors	More than	Equal/no differences	Less than	Total
1	Life Assurance: Body and Mind	84	-	-	84

84 Community members comment that Factors of Life Assurance had more weight than Factors of Body and Mind (84x2), none comment equal (0x1) and none comment less than (0x0)

Therefore scores of Factors of Life Assurance compared with Factors of Body and Mind are:

$$(84 \times 2) + (0 \times 1) + (0 \times 0) = 168 \dots\dots\dots (1)$$

- Paired Factors of Quality of Life between Life Assurance with Family

Pair	Paired Factors	More than	Equal/no differences	Less than	Total
2	Life Assurance: Family	38	33	13	84

38 Community members comment that Factors of Life Assurance had more weight than Factors of Family (38x2), 33 comment equal (33x1) and 13 comment less than (13x0)

Therefore scores of Factors of Life Assurance compared with Factors of Family are:

$$(38 \times 2) + (33 \times 1) + (13 \times 0) = 109 \dots\dots\dots (2)$$

- Paired Factors of Quality of Life between Life Assurance with Environment

Pair	Paired Factors	More than	Equal/no differences	Less than	Total
3	Life Assurance: Environment	68	13	3	84

68 Community members comment that Factors of Life Assurance had more weight than Factors of Environment (68x2), 13 comment equal (13x1) and 3 comment less than (3x0)

Therefore scores of Factors of Life Assurance compared with Factors of Environment are:

$$(68 \times 2) + (13 \times 1) + (3 \times 0) = 149 \dots\dots\dots (3)$$

- Paired Factors of Quality of Life between Life Assurance with Social

Pair	Paired Factors	More than	Equal/no differences	Less than	Total
4	Life Assurance: Social	71	9	4	84

71 Community members comment that Factors of Life Assurance had more weight than Factors of Social (71x2), 9 comment equal (9x1) and 4 comment less than (4x0)

Therefore scores of Factors of Life Assurance compared with Factors of Social are:

$$(71 \times 2) + (9 \times 1) + (4 \times 0) = 151 \dots\dots\dots (4)$$

- Paired Factors of Quality of Life between Life Assurance with Spiritual Happiness

Pair	Paired Factors	More than	Equal/no differences	Less than	Total
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5	Life Assurance	Spiritual happiness	70	6	8	84
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70 Community members comment that Factors of Life Assurance had more weight than Factors of Spiritual Happiness (70x2), 6 comment equal (6x1) and 8 comment less than (8x0)

Therefore scores of Factors of Life Assurance compared with Factors of Spiritual Happiness are:

$$(70 \times 2) + (6 \times 1) + (8 \times 0) = 146 \dots\dots\dots (5)$$

Total scores on Factors of Life Assurance are

$$(1) + (2) + (3) + (4) + (5) = 168 + 109 + 149 + 151 + 146 = 723$$

**Example 2: Factors of Family**

- Paired Factors of Quality of Life between Family with Life Assurance

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Pair	Paired Factors	More than	Equal/no differences	Less than	Total
2	Life Assurance: Family	38	33	13	84

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38 Community members comment that Factors of Life Assurance had more weight than Factors of Family (on the contrary, it means that 38 community members comment that Factors of Family had less weight than Factors of Life Assurance = 38x0), 33 comment equal (33x1) and 13 comment less than (on the contrary, it means that 13 community members comment that Factors of Family had more weight than Factors of Life Assurance = 13x2 )

Therefore scores of Factors of Family compared with Factors of Life Assurance are:

$$(38 \times 0) + (33 \times 1) + (13 \times 2) = 59 \dots\dots\dots (a)$$

- Paired Factors of Quality of Life between Body and Mind with Family

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Pair	Paired Factors	More than	Equal/no differences	Less than	Total
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6	Body and Mind: Family	7	13	64	84
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7 Community members comment that Factors of Body and Mind had more weight than Factors of Family on the contrary, it means that 7 community members comment that Factors of Family had less weight than Factors of Body and Mind = 7x0), 13 comment equal (13x1) and 64 comment less than (on the contrary, it means that 13 community members comment that Factors of Family had more weight than Factors of Body and Mind = 64x2)

Therefore scores of Factors of Family compared with Factors of Body and Mind are:

$$(7 \times 0) + (13 \times 1) + (64 \times 2) = 141 \dots\dots\dots (b)$$

• Paired Factors of Quality of Life between Family with Environment

Pair	Paired Factors	More than	Equal/no differences	Less than	Total
10	Family: Environment	72	12	-	84

72 Community members comment that Factors of Family had more weight than Factors of Environment (72x2), 12 comment equal (12x1) and none comment less than (0x0)

Therefore scores of Factors of Family compared with Factors of Environment are:

$$(72 \times 2) + (12 \times 1) + (0 \times 0) = 156 \dots\dots\dots (c)$$

• Paired Factors of Quality of Life between Family with Social

Pair	Paired Factors	More than	Equal/no differences	Less than	Total
11	Family: Social	73	8	3	84

73 Community members comment that Factors of Family had more weight than Factors of Social (73x2), 8 comment equal (8x1) and 3 comment less than (3x0)

Therefore scores of Factors of Family compared with Factors of Social are:

$$(73 \times 2) + (8 \times 1) + (3 \times 0) = 154 \dots\dots\dots (d)$$

• Paired Factors of Quality of Life between Family with Spiritual Happiness

Pair	Paired Factors	More than	Equal/no differences	Less than	Total
12	Family: Spiritual happiness	66	11	7	84

66 Community members comment that Factors of Family had more weight than Factors of Spiritual Happiness (66x2), 11 comment equal (11x1) and 7 comment less than (7x0)

Therefore scores of Factors of Family compared with Factors of Spiritual Happiness are:

$$(66 \times 2) + (11 \times 1) + (7 \times 0) = 143 \dots\dots\dots (e)$$

Total scores on Factors of Family are:

$$(a) + (b) + (c) + (d) + (e) = 59 + 141 + 156 + 154 + 143 = 653$$

3) Conclusion of weighing factors

From the criteria and examples of calculating weighing factors in 1) and 2) above. The summary of scores among different factors is as follows:

- Scores of Factors of Life Assurance are:  
 $(84 \times 2) + (38 \times 2) + 33 + (68 \times 2) + 13 + (71 \times 2) + 9 + (70 \times 2) + 6 = 723$

- Scores of Factors of Mind and Body are:  
 $(7 \times 2) + 13 + (25 \times 2) + 23 + (9 \times 2) + 62 + (71 \times 2) + 72 = 266$

- Scores of Factors of Family are:  
 $(13 \times 2) + 33 + (64 \times 2) + 13 + (72 \times 2) + 12 + (73 \times 2) + 8 + (66 \times 2) + 11 = 653$

- Scores of Factors of Environment are:  
 $(3 \times 2) + 13 + (36 \times 2) + 23 + 12 + (24 \times 2) + 52 + (16 \times 2) + 49 = 307$

- Scores of Factors of Social are:

$$(4 \times 2) + 9 + (13 \times 2) + 62 + (3 \times 2) + 8 + (8 \times 2) + 52 + (9 \times 2) + 63 = 268$$

- Scores of Factors of Spiritual Happiness are:

$$(8 \times 2) + 6 + (5 \times 2) + 72 + (7 \times 2) + 11 + (19 \times 2) + 49 + (12 \times 2) + 63 = 303$$

When scores of Factors of Mind and Body are 266 which is the lowest and taken as base for compared calculation, it will gain weight as follows (Table 10)

- Scores of Factors of Life Assurance are	723/266	= 2.72
- Scores of Factors of Mind and Body are	266/266	= 1.00
- Scores of Factors of Family are	653/266	= 2.45
- Scores of Factors of Environment are	307/266	= 1.15
- Scores of Factors of Social are	268/266	= 1.01
- Scores of Factors of Spiritual Happiness are	303/266	= 1.14

**Table 10:** Factors and Weight on Factors of Quality of Life from Paired Comparison

<b>Factors of Quality of Life</b>	<b>Scores of Paired Comparison</b>	<b>Weight of Factors</b>
Life Assurance	723	2.72
Mind and Body	266	1.00
Family a	653	2.45
Environment	307	1.15
Social	268	1.01
Spiritual Happiness	303	1.14

#### 4.2.2 Opinion of comparison on weighing indicators and calculation on weighing quality of life indicators within a factor

##### 4.2.2.1 Opinion of comparison on weighing quality of life indicators

Opinions of Comparison on Weighing Quality of Life Indicators in 17 pairs are as follows:

- Factors of Quality of Life related to Life Assurance	6 pairs
- Factors of Quality of Life related to Mind and Body	1 pair
- Factors of Quality of Life related to Family a	1 pair
- Factors of Quality of Life related to Environment	1 pair
- Factors of Quality of Life related to Social	2 pairs
- Factors of Quality of Life related to Spiritual Happiness	6 pairs

84 Community members of the pilot project comment compared weighing quality of life indicators as follows (Table 11)

**Table 11:** Frequency of Respondents on Opinions on Comparison of Weighing Factors

Pairs	Paired Factors	More than	Equal	Less than	Total	
<b>Factors of Life Assurance</b>						
1	Liability	Adequacy of 4 basic means	39	28	17	84
2	Liability	Education	38	29	17	84
3	Liability	Theft and assaults	28	34	22	84
4	Adequacy of 4 basic means	Education	22	42	20	84
5	Adequacy of 4 basic means	Theft and assaults	41	24	19	84
6	Education	Theft and assaults	36	33	15	84
<b>Factors of Body and Mind</b>						
1	Annual Medical Check	Numbers of mental disorder patients	9	52	23	84
<b>Factors of Family</b>						
1	Conflict within family members	Warm family and presence of parents and children	38	34	12	84

**Table 11:** Frequency of Respondents on Opinions on Comparison of Weighing Factors (cont.)

<b>Pairs</b>	<b>Paired Factors</b>		<b>More than</b>	<b>Equal</b>	<b>Less than</b>	<b>Total</b>
<b>Factors of Environment</b>						
1	Public Utilities (road, water supplies, electricity)	Litter collected hygienically and expeditiously	59	16	9	84
<b>Factors of Social</b>						
1	Common activities of members/community	Numbers of addicts/gamblers	39	24	21	84
<b>Factors of Spiritual Happiness</b>						
1	Household members regularly help public interest	Conflict among community households	25	25	34	84
2	Household members regularly help public interest	Community groups/organizations help suffering members	20	26	28	84
<b>Factors of Spiritual Happiness (cont.)</b>						
3	Household members regularly help public interest	Household members are accepted / respected from community members	41	34	9	84
4	Conflict among community households	Community groups/organizations help suffering members	28	23	33	84
5	Conflict among community households	Household members are accepted / respected from community members	47	31	6	84
6	Community groups/organizations help suffering members	Household members are accepted / respected from community members	51	22	11	84

#### 4.2.2.2 Calculation on values of weighing the factors of quality of life

##### 1) Criteria of Calculation

Principles are similar to calculation on values of weighing the factors of quality of life (take Table11 for calculation). Scores from paired-comparison are gained form 84 sets of questionnaire on comparing the quality of life indicators within a factor and by each pair.

- Any factors affecting quality of life more gain 2 marks
- Any factors equally affecting quality of life gain 1 marks
- Any factors less affecting quality of life gain 0 marks

The lowest score of the weighing will used as base for paired-calculation in each factor

2) Examples of Calculations

**Example 3:** (taken example of indicator within the factor of the quality of life) as follows:

- Comparing paired between liability indicator with adequacy of 4 basic means

Pairs	Paired Factors	More than	Equal	Less than	Total
<b>Factors of Life Assurance</b>					
1	Liability: Adequacy of 4 basic means	39	28	17	84

39 Community members comment that liability indicator had more weight than adequacy of 4 basic means (39x2), 28 comment equal (28x1) and 17 comment less than (17x0)

Therefore scores of compared liability indicator with adequacy of 4 basic means are:

$$(39 \times 2) + (28 \times 1) + (17 \times 0) = 106 \dots\dots\dots (1)$$

- Comparing paired between liability indicator with education

<b>Pairs</b>	<b>Paired Factors</b>	<b>More than</b>	<b>Equal</b>	<b>Less than</b>	<b>Total</b>
<b>Factors of Life Assurance</b>					
2	Liability: Education	38	29	17	84

38 Community members comment that liability indicator had more weight than education (38x2), 29comment equal (29x1) and 17 comment less than (17x0)

Therefore scores of compared liability indicator with education are:

$$(38 \times 2) + (29 \times 1) + (17 \times 0) = 105 \dots\dots\dots (2)$$

- Comparing paired between liability indicator with theft and assaults

<b>Pairs</b>	<b>Paired Factors</b>	<b>More than</b>	<b>Equal</b>	<b>Less than</b>	<b>Total</b>
<b>Factors of Life Assurance</b>					
3	Liability: Theft and assaults	28	34	22	84

28 Community members comment that liability indicator had more weight than theft and assaults (28x2), 34comment equal (34x1) and 22 comment less than (22x0)

Therefore scores of compared liability indicator with theft and assaults are:

$$(28 \times 2) + (34 \times 1) + (22 \times 0) = 90 \dots\dots\dots (3)$$

Total scores on Factors of Family are:

$$(1) + (2) + (3) = 106 + 105 + 90 = 301$$

### 3) Conclusion of Weighing the Quality of Life Indicators

From the criteria and examples of calculating weighing the Quality of Life Indicators in 1) and 2) above. The summary of scores among the Quality of Life Indicators is as follows:

Score of indicators in Factors of Life Assurance are

- Scores of Liability are:

$$(39 \times 2) + 28 + (38 \times 2) + 29 + (28 \times 2) + 34 = 301$$

- Scores of Adequacy of 4 Basic Means are:

$$(17 \times 2) + 28 + (22 \times 2) + 42 + (41 \times 2) + 22 = 252$$

- Scores of Education are:

$$(17 \times 2) + 29 + (20 \times 2) + 42 + (36 \times 2) + 33 = 250$$

- Scores of Theft and Assaults are:

$$(22 \times 2) + 34 + (19 \times 2) + 22 + (15 \times 2) + 33 = 201$$

When Theft and Assaults are 201 which is the lowest and taken as base for compared calculation, it will gain weight as follows:

- Liability	=	301/201	= 1.50
- Adequacy of 4 Basic Means	=	252/201	= 1.25
- Education	=	250/201	= 1.24
- Theft and Assaults	=	201/201	= 1.00

(scores of indicators within factors are similarly calculated)

Summary of weighing the quality of life indicators compared within the same factor (Table 12)

**Table 12:** Factors, Quality of Life Indicators and Weighing Factors and Indicators

<b>Factors of Quality of Life</b>	<b>Indicators</b>	<b>Weight of Indicators</b>
Life Assurance	- Liability	1.50
	- Adequacy of 4 basic means	1.25
	- Education	1.24
	- Theft and assaults	1.00
Body and Mind	- Annual Medical Check	1.00
	- Numbers of mental disorder patients	1.40
Family	- Conflict within family members	1.90
	- Warm family and presence of parents and children	1.00
Environment	- Public Utilities (road, water supplies, electricity)	3.94
	- Litter collected hygienically and expeditiously	1.00
Social	- Common activities of members/community	1.55
	- Numbers of addicts/ gamblers	1.00
Spiritual Happiness	- Household members regularly help public interest	1.92
	- Conflict among community households	2.14
	- Community groups/ organizations help suffering members	2.19
	- Household members are accepted / respected from community members	1.00

### 4.3 Communicating results of weighing factors and indicators

An open floor is used in the activity to communicate results of weighing factors and indicators. It has been organized on July 18, 2004 at 15.00 hours. The venue was near the inspector post of the village in Zone 2. 19 members were participating - 12 members from Zone 2, 5 community researchers (Khun Sirichai, Khun Soa, Khun Lin, Khun Moo, and Khun Lom), the researcher and an assistant for recording.

Objectives of the meeting are 1) to communicate results of weighing factors and indicators, 2) to implement the set of quality of life indicators

The activity begins with the community researchers help each other to summarize results of weighing factors and indicators on what are step of working and what are results using charts to summarize the weight of factors and indicators of quality of life for the participants to acknowledge. It is later followed by discussion for finding approach / implementation of the indicators' set. It is concluded that the communities by the community researchers are keys will assemble as committee ad hoc to pursue activities in the community. The set of indicators will be implemented for data collection to as community database. Such activities among the large community required assistance form many members. Therefore, there should be congruent activities with data collection, i.e. seeking community potentials (searching for good and great persons) to be the community capital for the purpose of developing the community in the future.

After fulfilling activities of the opened floor meeting, the community researchers, some participants from community members and the researcher has organized sub group meeting to appraise/ to analyze potentials of people to develop indicators.

## **5. Evaluations**

They are the final activities in the process of the participatory action research after gaining the quality of life indicators. Meaning, it is the appraisal/ analysis the potentials of people in developing the indicators. The purpose is to observe learning/ the learning process yielded from developing the indicators, which agrees with the principles of the participatory rural appraisal as presented in Chapter II and Chapter III. Such technique is the appraisal of the target people by employing self-evaluation based on criteria of Institute of Social Research, Chulalongkorn University (2001: 72-73) in formulating and developing indicators. They are classified into 3 levels, i.e. 1) people have adequate potentials, 2) people are developing their potentials, 3) people do not understand the studying process yet.

Techniques of sub-group meeting among the researcher, the community researchers, and community members are regularly used for the purpose to appraise

people potentials in certain groups of participants, and community in general. It allows participants to comment by appraising oneself, whether they understand the process of developing the quality of life indicators. How do they classify themselves? Also, it allows other participants to additionally comment and to appraise the potentials and grouping community people at large.

## **6. Conclusion of the process on developing people quality of life indicators**

Pursuing the participatory action research (PAR) presented has been divided into 5 steps to witness the process and development in the investigation. They are 1) evaluation of general conditions and the collection of community data, 2) seeking meaning and factors of quality of life, 3) selection of factors and identification of quality of life indicators, 4) test of factors, quality of life indicators and develop of weigh system, and 5) appraising potentials in developing indicators of the target group. It is likely concluded that the participatory research is a strategy to help people develop their potentials to realize their self-awareness and to stem confidence, learning how to listen and exchanging ideas, which synergizes to create activities. It helps to analyze situations, community problem conditions affecting quality of life. Key in this investigation is the presentation the turning point of the research process emphasizing conclusions and outputs to focus on the process and the context. Researchers have to readjust roles to build confidence and trust to bloom among researchers, community members, and participants of activities. So, the critical target of the participatory research is encouraging personnel in the community to best play roles in developing the community having the researcher from outside facilitates knowledge and skills of research and coordination. In this research, the researcher manages the process to create learning for both the researcher and people. She is not a passive observer but proactive as doer because she has to input intervention into the fieldwork community. It opposes to the conventional research where the researchers anticipate hypotheses but this research it learns from activities, which are designed from the empirical evidence.

The research process of “Quality of Life Indicators Development Using Participatory Approach” is summarized as follows: (Table 13)

**Table 13:** Conclusion of the Process of “Quality of Life Indicators Development  
Using Participatory Approach

No.	Date/ Month/ Years	Objectives	Target Group/ Technique of data collection	Outcomes
1	20 Oct. 03	Collecting community data	Database of Putthamonthon Community Research and Development Project / document reviews	Namelists of participants in the project to be informants
2	22 Oct. 03	Collecting community data	Staff of Sale Office of Real Estate Co., Ltd./ interviews	Community data and namelists of potential key informants
3	27 Oct. 03	Collecting community data	Developer of Maha Sawat sub- district, Putthamonthon district, Nakhon Pathom province/ interviews	Database of Maha Sawat/ namelists and data resources
4	1 Nov. 03	Collecting community data	Developer of Lan Takfa sub-district, Nakhon Chaisi district, Nakhon Pathom province/ interviews	Database of LanTakfa
5	10 Nov. 03	Blueprint of house location and addresses of key informants	Staff of Sale Office of Real Estate Co., Ltd.	Blueprint of house location and addresses of key informants
6	10 Nov.03	Meet key informants and	Key informant of Zone 2 / interviews	
7	15 Nov.03	explain the research ,	Key informant of Zone 1 / interviews	Advice of action and name-lists of
8	16 Nov.03	community data, seek advice, take action and name- lists of persons	Key informant of Zone 2 / interviews	persons better to be invited for
9	21 Nov.03	introduced by informants to be invited for participating in the research	Key informant of Zone 2 / interviews	participating in the research

**Table 13:** Conclusion of the Process of “Quality of Life Indicators Development  
Using Participatory Approach (cont.)

No.	Date/ Month/ Years	Objectives	Target Group/ Technique of data collection	Outcomes
10	14 Dec.03	1 <sup>st</sup> Meeting for community promptness	Key informants; persons introduced by key informants; members of Saving Group, researcher, and assistant for recording/ meeting	Community researchers Agreement on research issues and selecting location
11	11 Jan. 04	2 <sup>nd</sup> Meeting for community promptness	Community researchers; representatives from Zone1,3; members of Saving Account Group, researcher, and assistant for recording/ opened floor meeting and interviews	Action process on location and identifying roles of responsibly for the community researchers
12	22 Jan. 04		Community members of Soi 34 and 35; community researchers; representatives from Zone1,3; and the researcher/ group discussion	
13	25 Jan. 04		Community members of Soi 29 and 29/1-4; community researchers; representatives from Zone1,3; and the researcher/ group discussion and interviews	
14	3 Feb.04	Seeking Meaning and Factors of “Quality of Life”	Community members of Soi 32 ; community researchers; representatives from Zone1,3; and the researcher/ group discussion	Meaning and Factors of “Quality of Life” of each sub-group
15	8 Feb.04		Community members of Soi 30 ; community researchers; representatives from Zone1; and the researcher/ group discussion	
16	20 Feb.04		Community members of Soi 33 ; community researchers; representatives from Zone 3; and the researcher/ group discussion	
17	7 Mar.04		Community members of Soi 3 ; community researchers; representatives from Zone1,3; and the researcher/ group discussion and interviews	

**Table 13:** Conclusion of the Process of “Quality of Life Indicators Development  
Using Participatory Approach (cont.)

No.	Date/ Month/ Years	Objectives	Target Group/ Technique of data collection	Outcomes
18	21 Mar.04	Summary of activities on Meaning and Factors of “Quality of Life”	Community members Zone 2, community researchers; representatives from Zone1,3; the researcher and the assistant for recording / opened floor meeting	Conclusion of Meaning of “Quality of Life” in views of community members and 9 sections of Factors of “Quality of Life”
19	18 Apr.04	Selection of Factors and identify “Quality of Life” indicators	Community members Zone 2, community researchers; representatives from Zone1,3; the researcher and the assistant for recording / opened floor meeting	Select 6 sections of Factors of “Quality of Life and some indicators
20	25 Apr.04	Prepare questionnaire to test “Quality of Life” indicators using indicators developed by community	Research team meeting	Opinion questionnaire related to “Quality of Life” indicators
1	25-27 Apr. 04	Prepare questionnaire	Researcher	400 sets of questionnaire
22	1-5 May 04	Questionnaire distribution	Community researchers	-
23	15-02 May 04	Collect questionnaire	Community researchers	141 sets of Opinion questionnaire related to “Quality of Life” indicators returned after 400 distributed
24	21-25 May 04	Analyses questionnaire	Researcher	-
25	30 May 04	Grouping and improving indicators	Discussing among researcher team	Set of indicators after being tested and improved yielding 6 factors and 16 indicators

**Table 13:** Conclusion of the Process of “Quality of Life Indicators Development Using Participatory Approach (cont.)

No.	Date/ Month/ Years	Objectives	Target Group/ Technique of data collection	Outcomes
26	1-5 Jun. 04	Check Set of indicators developed by the community and Set of indicators synthesized from theories and concepts	Researcher	-
27	5-10 Jun. 04	Develop weighing system by preparing dichotomous questionnaire on factors an indicators by pair	The researcher prepares questionnaire and bring to discuss with the community researchers	dichotomous questionnaire on factors an indicators by pair
28	11-13 Jun. 04	Prepare questionnaire	Researcher	150 sets of questionnaire
29	15-20 Jun. 04	Questionnaire distribution	Community researchers	
30	4-10 Jul. 04	Collect questionnaire	Community researchers	84 sets of Opinion questionnaire related to "Quality of Life" indicators returned after 150 distributed
31	11-15 Jul. 04	Analyses questionnaire	Researcher	Outcomes of weight
32	18 Jul. 04	Communicate results of weighing and implement set of indicators	Opened floor	Continuing activity from the research process – community will apply the indicators to collect data to be as community database and activity to search community potentials (the good and the great.)

**Table 13:** Conclusion of the Process of "Quality of Life Indicators Development Using Participatory Approach (cont.)

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<b>No.</b>	<b>Date/ Month/ Years</b>	<b>Objectives</b>	<b>Target Group/ Technique of data collection</b>	<b>Outcomes</b>
33	18 Jul.04	Appraisal	Sub-groups meeting between the researcher and community researchers with the community members who regularly participate the activities	Analyze people potentials in developing indicators, which are classified into 3 levels, i.e. 1) People have adequate potentials, 2) People are developing their potentials, 3) People do not understand the studying process yet.

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## **CHAPTER V**

### **RESULTS**

This Chapter will present findings of the participative fieldwork on the indicator development of people quality of life in the study area, Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province. Details of the research process have been presented in Chapter IV. This Chapter is then presenting findings to respond 3 research questions, i.e. 1) what are the perspectives of quality of life among people living in housing estate communities? 2) what are quality of life indicators of people? and 3) what is a process in making quality of life indicators by people, what conditions/ factors being the determiners? To respond to the research questions, order of presentations contains:

1. Perspectives of quality of life
2. Quality of life indicators
3. Developing process on quality of life indicators and conditions/  
factors determining the process

#### **1. Perspectives of quality of life**

Presenting the perspective of people quality life in the study area, Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province, begins with clearing the understanding of the local context and attributes of the target group participating in the primary investigation. Later, the perspective of people quality life has been presented consecutively.

##### **1.1 The local context and the target group**

As stated in Chapter IV that the housing estate has no and never accumulated database of its population and necessary information of the community. Therefore, such data cannot be presented in these results. However, the researcher needs to present picture of the community context as foundation to clear the

understanding about this community. It was significantly collected from interviewees, community researchers, and community members participating in the fieldwork. It may primarily conclude data of the community context as follows\*

The study area is 14 kilometers from the district office of Putthamonthon, Nakhon Pathom province. It is accessible by 2 routes, i.e. from Putthamonthon and from Nakhon Chaisi. Private vehicles or cars and song-taew (pick-up bus) are mostly used to reach this housing estate. Previous domiciles of the population are Bangkok, Ratchaburi, Nakhon Pathom, and neighboring areas migrating to reside here on the basis that it is located in the skirt of city and not so far from Bangkok, convenient communication, good climate and affordable price. Most residents are employees, civil servants, and merchants.

The study area is a large size one accommodating 1,420 residences located in the jurisdiction of 3 villages. They are Moo C, Lan Takfa sub-district, Nakhon Chaisi district; Moo A and Moo B, Maha Sawat sub-district, Putthamonthon district. There are 4 natures of the residence, i.e. single home with double floor, a single home with one floor, a two-floor townhouse, and a one-floor townhouse. All have been sold out but residents are not fully occupied with each home.

The background of The study area has started its construction in 1994 and some phases have been completed in 1997 (Phase 1: Moo A Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province, and Moo C, Lan Takfa sub-district, Nakhon Chaisi district, Nakhon Pathom province.). The construction has been halted for a period by the economic regression (1997) in Thailand. The enterprise has been affected by the source of capital. However, after capital mobility, the project has been completed in 2000. (Phase 2: Moo B, Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province). The economic downturn halted the construction and divided into 2 phases affected the community management and creates conflicts between the buyers of Phase1 and the enterprise in associated with leading to conflicts among buyers in Phase1 (Zone 2 and 3) and Phase 2 (Zone 1). Later, buyers of Phase

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\* Consequences of this research process contribute the community seeing the significance of the community database. It is under the survey process conducted by the community researchers associated with the community members.

1 has been charged on public utilities with the buying price but avoided informing or made clear in the agreement that there is the registered cooperate body on housing estate and transferring its assets (board of operation) to be responsible under the common asset management of the estate. Therefore, buyers of Phase 1 need to for the public utilities under the obligations of the housing estate. On the contrary, buyers of Phase 2 are not charged on lump sum pay for their public utilities like buyers of Phase 1 and they are informed by the management that Phase 2 is on the process of registering the cooperate body. The company announces the first election for the board of the housing estate on December 14, 2003 but the election fails because no representative from Phase 1 volunteers to be the board member. The critical reason is the prolong problem of unpaid public utility charges and the representative has to be in charges collecting public utility fees for the board. Phase 1 meets this problem for long because the enterprise has absorbed this payment. Had there been transferring its assets to be responsible under the common asset management, the company had no further responsibility over this affair. The buyers think that the company takes advantages since the expenses had been already charged but shifted burden to the board. Election of the board is therefore failed and postponed for many times without finalization and it has been prolong till present.\* (October 2004)

Being a large size housing estate, the research needs to select representatives for studies. This investigation has select location of Moo A Maha Sawat sub-district, Putthamonthon district, which accommodates 289 houses as the pilot project. Reasons are these locations aggregate people (Saving Account Group: "Friends Help Friends"), where it is a junction to access communities. Further, this location is the center of both other two housing estates (Moo B, Maha Sawat sub-district, Putthamonthon district and Moo C, Lan Takfa sub-district, Nakhon Chaisi district). Therefore, it is selected to be tryout fieldwork of the improved indicator. However, the decision in selecting this

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\* Prior electing the housing board to represent in registering a corporate body, the company has already appointed 2 committees to represent in managing the community (already resigned and no committee at present). The company first conducted the board selection in general rather than representation from each zone. Most members live in Phase 2 (Zone 1) which led to no cooperation from residents of Phase 2 (Zone 2 and 3). However, it was observed that there was still positive relation among community members, had community activities had been asked for except public utilities. Residents of Phase 1 later reasoned to the researcher that they did not wish to get conflict among community members but justification that the company had to take responsibility rather than shifted burdens to communities.

location as the pilot project has been participated by three representatives from each community and other two communities have participated by each representative in the process of developing this indicator device.

The process of developing the community indicator device has been regularly participated by 7 community key men accepted by community members in association with 33 community members. There are 40 of them in total. Almost of the target groups (80%) are migrating Ratchaburi, Nakhon Pathom, Samut Songkram, Prajuab Kirikhan, previous occupation are agriculture, employee and civil servants. This entire target group has been classified with 37.5% male and 62.5% female with the age ranging 35-45 years (37.75% by average). Their lowest education level is bachelor degree with diversified occupation i.e. civil servants, private enterprise, private business, student, university student, and housewife.( Table 14). Besides, there are some community members occasionally participating the activity.

**Table 14:** Attributes of Participants of Extended Research

Attributes	Frequency	Percentage
<b>Gender</b>		
Male	15	37.5
Female	25	62.5
Total	40	100.0
<b>Age</b>		
Lowest: 13 yrs.; highest 68 yrs. or 37.75 yrs. by average		
<b>Education</b>		
Primary	13	32.5
Junior secondary	7	17.5
Senior secondary	10	25.0
Pre bachelor/high vocation.	3	7.5
Bachelor or higher	7	17.5
Total	40	100.0
<b>Occupation</b>		
Housewife	6	15.0
Students	5	12.5
Employee	12	30.0
Civil servant/state enterprise	5	12.5
Trader/business	12	30.0
Total	40	100.0

## 1.2 Perspectives of quality of life

Participants differently define the “quality of life” with their own perspectives as detail follows:

“Generosity, helping and understanding each other” [4]\*

“Stable income, warm home, good surrounding, harmonizing neighbors”

“Happy family, understanding and sympathy, obedient children, relative income to expenditures”

“Well living, stable income, happy family, friendly neighbors”

“Good lifestyle, good social surrounding, drug and vice-free community”

“Well-living, prosperous, good family, physical and spiritual healthiness, problem- free for common”

“physical and spiritual healthiness, warm home, good society and environment, commonly good life in the society.”

“Even with low income but happy, only the children are well-equipped with knowledge and not jobless.”

“Having a warm family, relative income and healthy”

“Prefect family, good living, mutual assistance and understanding and stable status”

“A warm family”

“Mental healthiness”

“Physical healthiness”

“Completely well-prepared in all things, and debt-free”

“Happiness which cannot be found”

“Happy living, employment, and without worries”

“Welling living, ensured living, and solicitousness”

“Educated and secure job”

“A warm family, stable status, well-informed, and good environment”

“Good environmental residence, sufficient means for living, and secure job”

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\* Frequency of giving points of view

- “Well living, employment, and a warm family”[3]\*
- “Happiness with no anxieties”
- “Well living, employment, and a warm family”[3]
- “Security of life and property, healthiness and good public supplies”
- “Sufficiency of the four means”
- “Good education, good family, employment and secure income and living in good environment”[3]
- “Well living in all aspects (money, education and returns for society)”
- “Healthiness, happy living, good environment, good society, good friend, sustained life, stable and secure life and property”
- “Healthiness, a warm family, employment, money for spending, and good environment”[2]
- “Well living, healthiness, and good environment”[2]

Defining/ giving points of views on quality of life as above proves that having good quality of life among each individual might be differently relying on one or many factors. Different factors viewed by participants and relating or influencing the quality of life are factors of family, education, security of life and property and so on. All these factors involve with the lifestyle of research participants and they meet them everyday. It is concluded that a good quality of life by meaning of community members is relationship of factors related living or daily routine activities either personal, or family activities or social activities.

Considering attributes of population participating in the research process, they are age, education, each occupational experience, and they are found differed as follows:

- **Gender: Perspective of Quality of Life**

It is found when classifying definition/perspective of quality of life that

The male views and defines it related with income, assurance of living, security of life and property, healthiness and having a warm family.

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\* Frequency of giving points of view

“Well-living, employment, and a warm family”

“Well living, secure employment, security of life and property”

“Healthiness, happy life, good environment, good society,  
companionship, sustainable life and security of life and property

At the meantime, the female views and defines it is related with family, education of children, relation of people in society and income.

“ A happy family, understanding and sympathy, obedient children,  
and income serves expenses”

“A happiness with low income, wishing children have good  
knowledge and job”

“A perfect family, well-living, sympathy and stable status”

- **Age: Perspective of Quality of Life**

It is found when classifying definition/perspective of quality of life that

The youth views and defines it is related with education, income and happiness.

“ Educated, physical and spiritual happiness and without worries”

“Good education, occupation and stable income”

The work age group views and defines it is related with income, security of life and property.

“ Well-living, life assurance, adequacy, and stable income”

“Well-eating well-living, perfect, and without debt”

“well-living, stable job, security of life and property”

The elder views and defines it is related with spiritual happiness, generosity, physical and spiritual happiness.

“ Generosity, mutual assistance and understanding ”

“A happy family, understanding and sympathy, obedient children, and  
income serves expenses”

“Good mental health”

“Healthiness”

- **Education: Perspective of Quality of Life**

It is found when classifying definition/perspective of quality of life that

The high educated (pre-bachelor-bachelor degree and higher degrees) evidently and constructively views and defines it as well as classifies factors affecting it in many dimensions, e.g.

“ A warm family, stable status, well-informed, good environment ”

“Residence among good environment, adequate means for living, stable job”

Well-living, employment and a warm family”

The lower educated (primary and secondary levels) views and defines it likely ambiguous and intangible as well as preoccupies with few factors, e.g.

“ Perfect in all things, and without debt ”

“Spiritual happiness and without worries in problems”

“A warm family”

“ Good mental health”

“Healthiness”

- **Occupation: Perspective of Quality of Life**

It is found when classifying definition/perspective of quality of life that it is not different from those of gender, and age groups excepted the levels of expectation toward acquiring factors affecting quality of life, which are likely different in area of occupation, e.g. factor of income

The state enterprise employee expects on income to the level of building stability to oneself and family.

“ stable status ”

“Stable income”

The employee/ merchant expects on income to the level of adequacy and without debt.

“Adequate income for family expenses”

“No debt ”

Definitions viewed by community members reflect clearer when the research team (the researcher and assistants) brings back the indicator devices to participants for the non-participants’ reviews and corrections. After co-examining, community people suggest that indicators in different areas cover problems and expectations in all aspects.

It is likely concluded that there are different perspectives in each individual but overall they have congruent points of view on quality of life among research participants i.e. each prioritizes the security of life and property, which means economic factors or income as key. Other factors, i.e. education, family, environment, health and spiritual happiness, and relation among people in community are likely found with some differences.

Summary of perspectives on quality of life by people attributes are shown in Table 15

**Table 15:** Summary of Definition/Perspectives of Quality of Life Classified by People's Attributes

Attributes	Factors Identified by Participants							Notes	
	Income/stable occupation	Education	Family	Physical and Mental Health	Environment	Security of Life and Property	Relation with Neighbor		Happiness
<b>Gender</b>									
-Male	x		x	x		x			Giving perspective by roles and responsibility
- Female	x	x	x				x		
<b>Age</b>									
- Youth	x	x				x		x	Giving perspective by age development
- Work age group	x								
- Elder	x		x				x	x	
<b>Education</b>									
- Voc./pre bachelor degree	x	x	x		x	x			Different clarity of giving perspectives
- Primary-secondary level	x		x	x					
<b>Occupation</b>									
- Housewife	x	x	x				x	x	Similar factors but different expectations toward factors
- Employee / merchant	x								
- State enterprise	x	x		x	x	x			
- employee/government official									

## 2. Quality of life indicators

### 2.1 Factors and indicators of quality life gained from people development in community

The participative process research is vested with group dialog techniques and meeting to find conclusion among the researcher, the community researcher and the community people. It allows participants to classify factors of quality of life indicators and to weigh factors and indicators in pair to prioritize them, which will be

advantageous for planning to improve people quality in the fieldwork area. It is concluded into 6 factors with 16 indicators.

1. Factor of Life Assurance contains 4 indicators, i.e. liability, adequacy of 4 basic means, education, and theft and assault.

2. Factor of Body and Mind contains 2 indicators, i.e. annual health check-up, and number of mental health patients.

3. Factor of Family contains 2 indicators, i.e. conflicts among family members, and having a warm family and presence of parents and children together.

4. Factor of Environment contains 2 indicators, i.e. public utilities (road, water supplies, electricity) and garbage collecting with hygiene and expeditiousness.

5. Factor of Social contains 2 indicators, i.e. number of activities among members/community, and number of addicts/ gamblers.

6. Factor of Spiritual Happiness contains 2 indicators, i.e. household members regularly share public interest, conflict among community households, community groups/ organizations help suffering members and household members are accepted /respected by community members

The 6 factors and 16 indicators of quality of life have been prioritized from maximum to minimum\* as follows:

1	Factor of Life Assurance	(2.72)**
	- Liability	(1.50)
	- Adequacy of 4 basic means	(1.25)
	- Education	(1.24)
	- Theft and assault	(1.00)
2	Factor of Family	(2.45)
	- Among family members	(1.90)
	- Having a warm family and presence of parents and children together	(1.00)
3	Factor of Environment	(1.15)*
	- Public utilities (road, water supplies, electricity)	(3.94)
	- Garbage collecting with hygiene and	(1.00)

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\* The prioritized from maximum to minimum by weighing the factors and then weighing the indicators within the same factor, not indicators will be weighed (detail was presented in Chapter IV).

\*\* figures in brackets are the value of weight

## expeditiousness

4	Factor of Spiritual Happiness	(1.14)
	- Household members regularly share public interest	(2.19)
	- Conflict among community households	(2.14)
	- Community groups/ organizations help suffering members	(1.92)
	- Household members are accepted /respected by community members	(1.00)
5	Factor of Social	(1.01)
	- Number of activities among members/communities	(1.55)
	- Number of addicts/ gamblers	(1.00)
6	Factor of Body and Mind	(1.00)
	- Annual health check-up	(1.40)
	- Number of mental health patients	(1.00)

## 2.1.1 Factors of Quality of Life

The 6 factors of quality of life are 1) Factor of Life Assurance, 2) Factor of Body and Mind, 3) Factor of Family, 4) Factor of Environment, 5) Factor of Social, and 6) Factor of Spiritual Happiness. The community members considerably prioritize all 6 factors but highly on life assurance and the warm family rather than other factors (2.72 and 2.45 respectively). The second is the environment and the spiritual happiness are relative (1.15 and 1.14). The factors of social and factor of body and mind are the last but relative (1.01 and 1.00).

Comparing each factor, it is found that community members prioritize the life assurance rather than the family at 1.11 times ( $2.72 \div 2.45 = 1.11$ ). The life assurance is more significant than the environment at 2.36 times ( $2.72 \div 1.15 = 2.36$ ). The life assurance is more significant than spiritual happiness at 2.38 times ( $2.72 \div 1.14 = 2.38$ ). The life assurance is more significant than the body and mind at 2.61 times ( $2.72 \div 1.01 = 2.61$ ).

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\* figures in brackets are the value of weight

The factor of family is more significant than the environment at 2.13 times ( $2.45 \div 1.15 = 2.13$ ) and are more significant than the spiritual happiness, the social and the body and mind at 2.15, 2.43 and 2.45 times, respectively.

The factor of environment is relative to the factor of spiritual happiness but both are more significant than factors of social and body and mind at 1.14, and 1.15 times respectively.

The factor of social and the factor of body and mind are relative and have lowest significance compared to other factors.

### 2.1.2 The Quality of Life Indicators Compared within the same Factor

Weighing quality life indicators within the same factors, it is found that community members dramatically prioritize each indicator particularly within the factors of environment and the family, i.e.

Weighing significance of the quality life indicators in the factor of environment, the community members observed that indicators of public utilities (road, water supplies and electricity) weigh more than having garbage collecting with hygiene and expeditiousness at 3.94 times (similar calculation as comparing factors). It reflects that community members prioritize public utilities (road, water supplies and electricity), which necessarily facilitate city life as means turning population quality life better than garbage collecting with hygiene and expeditiousness.

Weighing significance of the quality life indicators of the family, the community members observed that the indicators of conflicts among family members are weighed more than the family with the presence of parents and children together at 1.9 times. It reflects the significance of conflicts among family members, which are indicators making better quality of life for family warm rather than the presence of parents and children together.

Weighing significance of the quality life indicators in the factor of life assurance, the community members observed that liability is the most significant indicator (1.50). The second is the adequacy of 4 basic means (1.25), education (1.24)

and the theft and assault (1.00). Liability is more significant than the adequacy of 4 basic means at 1.20 times, more than education at 1.21 times and more than the security of life and property at 1.50 times. It reflects that the life assurance is the most significant among urban members, i.e. balanced income without liability rather than others factors.

Weighing significance of the quality life indicators in factor of the spiritual happiness, the community members observed that indicator of community groups/ organizations help suffering members and conflict among community households are relatively significant indicators and are the most significance in this factor (2.19 and 2.14 times respectively). The second is the household members regularly share public interest (1.92) and the household members are accepted/ respected by community members (1.00). It reflects that factors generating spiritual happiness of city members are the generosity and peaceful living without creating problems against other.

Weighing significance of the quality life indicators within the factor of social, the community members observed that the number of activities among members/communities has more weight than the number of addicts/ gamblers at 1.55 times. It reflects having harmonizing neighbors with activities among members/ communities is more significance than the number of addicts/ gamblers.

Comparing the weight of indicator within the factor of body and mind, the community members observed that the number of mental health patients has more weight than the annual health check-up at 1.40 times. It reflects having the mental health is more significance than the physical health.

## **2.2 Checking quality life factors and indicators developed by people compared with quality life factors and indicators found from conceptual and theoretical syntheses**

Examining by broad perspective-based claiming that accuracy of data needs to be checked by crosscheck and compare. Besides these techniques, it is concluded that there are 6 factors of quality life and 16 indicators as presented in Item

2.1, the researcher has further checked and compared with the conceptual and theoretical syntheses including different related researches.

The quality life factors and indicators synthesized from concepts, theories and related researches (presented in Chapter II) contain 9 factors and 56 indicators. Findings of comparison between sets of indicators shared by people in improvement and set synthesized from theories (Table 16) are:

In relation to the quality life factors, when being examined in general, the set of indicators synthesized by theories from international levels and from abroad and domestic, aiming to develop for assessing the quality life of the target group, generally, they are meant to assess the level of society /community rather than targeting to create the process of learning. Such development process of the quality life indicators is still influenced by the tight perspective called SMART-indicator (Details presented in Chapter II: pp.40). Factorial dimensions are therefore multiple to allow factors related to quality life cover all areas of assessment. It is found that the quality life for cautiously planning development in area of quality life factors synthesized from theories and related researches contains 9 factors. They are factors of 1) basic means for living, 2) health, 3) economics, 4) social life, 5) education, 6) health, 7) family life, 8) recreation and information, and 9) infrastructure. At the meantime, the quality life factors developed by sharing with people have been found specific to the local context and target group. Its dimension is likely restricted and less than those synthesized from theories and research works. However, co-examining the perspectives/ definition drawn from people with indicators of each factors developed from the local people, it is found that major factors of the quality life developed by people are not different from those synthesized ones. Meaning, factors of both approaches similarly contain 7 factors except factors of 1) basic means of living, 2) economic, 3) education, 4) family life, 5) social life, 6) health, and 7) infrastructures. It is exempted work life, and of recreation and information, which are not found in those developed with local people. With those 7 co-factors, indicators co-developed with people have been classified differently from those synthesized ones into 6 factors covering the 7 sets of factors synthesized from theories.

By overview, the quality life indicators in each factors synthesized from theories contain more than 56 indicators, while those co-developed with local people are less than 3.5 times (16 indicators). There are differences of number and classification of each factor borne from each the local context, with different method and perspectives of development. Sets of indicators co-developed are specified for a group and locality with insider's views, which are personal. Such indicators express subjectivity rather than objectivity. Therefore they are different from those synthesized from theories developed from outsider's view. Objective indicators are more assessable, and measurable than those from subjective ones. In association with different local context, the sets mostly synthesized from theories are used in rural areas. At the meantime, sets developed from the local context with different lifestyle, well equipped with infrastructures and more accessibility of information than the rural area determine different indicators. However, comparing details of sets co-developed with local people and those synthesized from theories, it is found that the latter contains indicators surpassing those co-developed by local people. Many indicators using words/close meaning in some sections even identically identified but completely different such as factors of family (or the warm family), which its indicators are not relative.

Close examining factors and indicators in each factor, it is found that they are corresponding between sets synthesized from theories and sets co-developed by people even number of factors may differ but only differences in classification and nomination of factors are critically specified. They are:

Factors of basic means of living, economics, and education, Those synthesized from theories, but those three areas co-developed by local people are determined the to be in the same factor using the factors of life assurance,. It is a big word and broadly covering and unspecified unlike those synthesized from theories. However, examining into details of the indicators in each factor, they are found that those synthesized from theories are more specific than those from co-developed with local people. There are 19 indicators but only 4 indicators found from the co-developed.

Factors of family life, which are synthesized from theories, can be diversely interpreted. (Reflected from its indicators). The set co-developed is called the factor of the warm family has more specific meaning than those synthesized from theories. Examining details of indicators under each sets, it is found that those synthesized from theories contain 4 indicators, i.e. the indicator prioritizing factors within family (number of members, and role status of members); and the external factor (having welfare and family welfare). At the meantime, sets co-developed contain 2 indicators, which mainly prioritize internal factors of family (perfectness, all-togetherness and mutual understanding).

Factors of social life, which is synthesized from theories, are vested with the similarity to factors of family life. Meaning, it is a broad factor and diversely interpreted. At the meantime, those co-developed with local people contain 2 more specific factors, i.e. factors of spiritual happiness and of good society. Examining details in each factor, it is found that those synthesized from theories contain 5 indicators prioritizing good relationship and different activities in society of both assistance and participating with the group activities/ community organizations. At the meantime, those co-developed contain 6 indicators prioritizing good relationship within community rather than prioritizing participating in social activities and generosity.

Factors of health, which are synthesized from theories are factors interpreting 2 sides of health, i.e. physically and mentally, while those co-developed are similarly defined by clearly reflecting the determination of the factor's name - factors of physical and mental healthiness. Examining details in each set, it is found that those synthesized from theories contain 17 indicators prioritizing factors directly affecting the physical and the mental health and other risk factors. At the meantime, the set co-developed contains only 2 indicators, i.e. the strong physical health and good mental health. Their meanings are "no stresses" and "no sickness" under the local people's views of the fieldwork.

Factors of infrastructure, synthesized form theories are referred to public supplies (road, water supply and electricity), while the set co-developed called it as the factors of environment. Besides, they are meant not only infrastructures but also community environment. Examining details of each set, it is found that the set

synthesized from theories contain 1 indicator, which specifies having the infrastructure, while the set co-developed contain 2 indicators, i.e. having public utilities and hygiene of community cleanness.

**Table 16:** Comparing Quality of Life Indicators between the Set of Synthesized Theories and the Set of Indicators Developed by People

Comparing Factors		Comparing Indicators	
Synthesized Theories	Developed by People	Synthesized Theories (56)	Developed by People (16)
1. Basic Factors for Living		- Adequacy of 4 basic means	- Adequacy of 4 basic means
		- Physically natural environment	x
		- Residential environment	x
		- Facilities at home	x
		- Necessary devices	x
2. Economy		- Property owner	x
		- Security of property	- Security of life and property (theft and assaults)
		- Income / financial stability	x
		- Key career	x
		- Additional career of family	x
		- Social security	x
		- Saving	x
		- Liability condition	- Liability
		- Investment	x
		- Living guarantee	x
	1. Life Assurance	- Economic self-dependency	x
3. Education		- Education	- Education
		- Having learning process, dissemination of knowledge and experience	x
		- Attending training	x
4. Family Life		- Number of family member	x
		- Role of family status	x
		- Well-being and welfare of family members	x
		- Successful family	x
		x	- Understanding within family (conflict within family)
		x	- Perfectness of family (presence of parents and children together)

**Table 16:** Comparing Quality of Life Indicators between the Set of Synthesized Theories and the Set of Indicators Developed by People (cont.)

Comparing Factors		Comparing Indicators	
Synthesized Theories	Developed by People	Synthesized Theories (56)	Developed by People (16)
5. Social Life	3. Spiritual happiness 4. Social	- Social interpersonal  - Socialized activities  -Aiding activities in society  - Participation to develop lifestyle/ lifestyle identification - Participating activities of the organization groups in community x	- Peacefulness (conflict within community households) - Community unity (shared activities among communities) - Community groups/ organizations help suffering members - Household members regularly share public interest - Social acceptance  - Narcotics and immorality
6. Health	5. Body and Mind	1) Physical Health - Free from ailments/chronic symptoms - Physical healthiness - Duration of sickness - Behaving or self-care during sickness - Sources or place of service when being sick - Medical expenses - Health welfare - Avoiding accident and physical violence - Ability of drug medication - Annual health check  2) Mental Health - Ability of self-control in crisis - Self-confidence encountering unexpected situation - Good mental health without despair in life - Free from worries about family and intimates - Free from worries about health - Free from conflict with relatives and others	1) Physical Health x x x x x x x x x - Annual health check  2) Mental Health x x - Mental health patient x x x

**Table 16:** Comparing Quality of Life Indicators between the Set of Synthesized Theories and the Set of Indicators Developed by People (cont.)

Comparing Factors		Comparing Indicators	
Synthesized Theories	Developed by People	Synthesized Theories (56)	Developed by People (16)
7. Infrastructures	6. Environment	- Public utilities (electricity, water supplies, road and etc.) x	- Public utilities (road, water supplies electricity) - Garbage collecting with hygiene and expeditiousness
8. Work Life	x	- Participating in working - Jobless - Number of work-hour - Number of days spent in working - Work stability and advancement - Employment condition - Self-development in work performance	x x x x x x x
9. Recreation/ information	x	- Social recreation - Recreation by receiving entertainment - Recreation by doing oneself	x x x

### 3. Developing process on quality life indicators and conditions/ factors determining the process

Developing the quality life indicators by PAR is the empowerment encouraging community members to think, and express their creativity. Besides it helps them to know how to analyze affecting the changes in the research process. Findings deserved the claim of being the first participation of the housing estate, where it generates more interactions among community members. Extensive activities are organized in areas of collecting community database, and the community potentials survey, which will lead to developing other community dimensions affecting future quality life. There are different processes and factors/conditions of both factors of achievement and limitations of processing this indicator formulation. They are:

### **3.1 Process of developing quality life indicators**

It is conducted in the housing estate, Maha Sawat sub-district, Putthamonthon district, Nakhon Pathom province. It contains 5 steps, i.e. 1) general assessment and collecting data from community, 2) finding definition and factors of the “quality of life”, 3) selecting quality of life factors and indicators, 4) examining quality of life factors and indicators and weighing system, and 5) pursuing and evaluating. All these steps are PAR and PRA based to help develop people potentials of self-awareness. All steps are equally significant. However, the step of general assessment and collecting community data is key since it begins the process. Achievement or failure relies on this step, in particular in participatory research, it needs collaboration, understanding and the researcher acceptance, employed research process, mutual and people acceptance among participants. In this research, channel to access familiarity and being accepted by community members is through the community researchers, who play key roles. Not only being popular but also to some extent reliable among community members, they are volunteers to coordinate, to co-think and to complete research process.

Keys of a participatory research are community management and people participation. Aims are to draw ultimate benefits from personnel and resources in the community in form of the collective organization. It is found from participating that this research, by principle, is yet incomplete because of some limitations within the locality, which will be further presented in part of people potentials assessment for those participants. However, examining consequences of the process, it is found that achievements tend to some extent depending on drawing ultimate benefits from personnel and resources in the community in form of the collective organization. Rationally, consequences of this research, part of local people (extensive participation) begin activities following this research by preparing the community database following indicators they have co-developed including pursuing potentials of the community activity to be as data for further community development planning.

All 5 steps have been presented in Chapter IV including findings from major process presented above. Following presentations are assessments of participant potentials, which will help understand cause/limitations of the participatory process.

It is the last activity after gaining the quality life indicator. It is referred to the evaluation/analyses the participant potentials who co-develop the device. Criteria are based on the Social Research Institute, Chulalongkorn University (2001: 72-73). Participants have been grouped into three levels, i.e. 1) the sufficient potentials, 2) developing potentials, and 3) the ignorant group. It is handled by separated into minor group meeting among researchers, the community researcher and the unfailing participants. Self-evaluations and participants' evaluation are conducted and findings are as follows:

1) The Sufficient Potentials Group: It is found that they are ready and understand the process as well as admit to use the indicators for the benefits of the community. Most have leadership attributes and to some extent recognized by the community members. They are civil servants with stable status, career experience, which allow fast perceptions and learning, seeing the benefit so the community attached with determination to participate in the activities useful to the community as background but lack opportunities and no serious leader. They are uncertain to have front/ workmates in any activities advantageous to their own community. Therefore, this research process sparks and gives opportunity for this group to full employ their existing potentials, and to express leadership. Consequences of this research encourage key men (the community researchers) gathering to continue after this research. They are preparing the community database following the indicators co-developed and the community potentials search activities (finding good and great persons) to be data useful for further development planning in their community. This group contains 25% by approximate of the consistent participants. (10 persons form 40 participants).

2) The Developing Potentials Group: They do not completely understand the research process that it would be useful to community and themselves. Even unlikely understand, they are ready to cooperate and learn but need rearrange the process, simple communication for understanding and allocating time to match the lifestyle of the target group. They continuously participate in the activities but few members containing 62.5% by approximate of the consistent participants. (25 persons form 40 participants), and

3) The Ignorant Group: this group does not understand and reject the usefulness of the process to the community and itself. Some accept the usefulness of research as stage or channel for community interaction, opportunities for experience exchanging and learning from each other. Normally, the community never exposes them to

such opportunities/ activities. This group least cooperate particularly, long-time spent activities such as group discussion, arranging opened floor and so on. On the contrary, with less time spent activities such as cooperation to fill the questionnaire, they will be happy to collaborate since time is less spent and they can fix their time to fulfill. This group contains 17 persons (5 are consistent participants and 12 persons are occasional participants).

Besides assessing people/ members potentials as above in the research process assessment, it is found that positively, the process of developing the quality of life indicators allows members chances to learn and evident changes during pursuing the process, which are

- 1) Forming countless exchange-floors of ideas within communities, which allows community members learn and systemize their thinking to pursue the working process and consistently developing the indicators.

- 2) Members are well prepared by more punctually arriving for participation compared to earlier meetings when some have been unpunctual. Members are dramatically less unpunctual with the following meeting as well as more responsible to the group with more collaboration, and more assistance to turn activities well prepared (previously, they have been prepared by the community researchers).

- 3) Participants speak less on their one interest and turn more to public interests and activity collaborations, e.g. a proposal by even a housewife proposing to group a housewife career (those who do not work outside the communities) to add income to the families.

- 4) The research process has created exchanges and realization of problems among members. It makes them more understanding each other. Reflecting ideas on floor creates more solutions to handle problems of the group members. (The saving group opens the non-member to apply for membership even living in the different zone to handle informal debt.)

- 5) The research process allows the group leader (community researchers) broader sense and be more accepted by members.

However, there are limitations with the research process, particularly the method of formulation step and data collection by people participation are new things. Most members have not prior experience and the process needs continuous recording, which is

essential for data management. Most members prefer memorizing rather than recording (even this project attempts the community researcher to record stills few follows). This might be the community weakness if there were development process in future. Remedy is continuously organizing such activities to find familiarity of recording. However, activities initiated by the community research group to exploit the usefulness of the quality life indicators co-developed might be another channel to organize continuous activities in future.

### **3.2 Conditions/Factors determining the indicator developing process**

The Indicator Developing Process by people participation is a process research, which seriously relies on collaboration and participation from the target group. Had the design of the working process been unacceptable to community members, it becomes limitations to the people participation and difficult to achieve the goal. It is the same with this research, many successes and failures of conditions/ factors have been found as follows:

#### **3.2.1 Conditions/Factors of Achievement**

1. The Entry Point is the quality life, personal and positive, which never sparks or expands community conflict.
2. The process having participatory activities with community by forwarding together between the researcher, expert and community members. It is a two-way communication. Meaning, upon receiving data there must be feedback to community even primarily unclear since all parties need readjustments and well tuned. This method initiate learning for all parties. Significantly, participants from community need to learn and clear in team at the beginning through out the process. Finally, they will improve. The indicator of quality life will be accepted only by community become aware that they create and actually own it.
3. Designing work process into small groups matching the lanes and location. It allows members opportunities to extensively participate. By this participants regularly share their comments turning data covering population and finding most authentic findings.

4. Leaders are still keys in community. Therefore, with this research, it attempts to promote leaders by assigning leading role in the process as the community researchers. It motivates leaders to associate with leadership characters and credibility to step forward as leader of thought. They are significant. It brings trust and cooperation from community members particularly group leaders with organizational backing.( e.g. saving group). When joining as community researchers they will gain more collaboration from organizational members and common members in community.

5. The community sees usefulness from researches. With limitations of community, there are no demographic data and other necessary ones. It helps researchers so much if there were ones since it is the channel for the researcher to exploit. Rationally, it is used to motivate community to later create common activities. Also, the communities see benefits and think that they are able to readjust and conduct other activities.

6. Designing activities should match lifestyles of the community members having method readjustment both methods and time to particularly meet each attributes of the target group.

### **3.3 Research limitations**

Even this study has been successful but it is not smooth thorough out the process. There are some limitations and key conditions specifically for the area

1. By nature of an urban community, there were diversification of occupations, gender, education and different awareness toward different problems. In association with the lifestyle of haste, restricted time, therefore, participants are restricted within some groups of people. It fails to reach the issues of participatory research intended coverage participation under the PAR-based.

2. Time is likely spent with research and with the problem with this limitations and readiness of participants who are free only during weekends and not all weekends can organize activities. Some activities has long been left, it is difficult to trace operational situation and breaks the continuity of the participants. Such activities need revision and likely consume existing period causing some participants to allow members joining activities without fail and fast to keep abreast with situation feeling

bore and sometime outwardly express causing other uneasiness. It may cause some participants skip activities. Some fade away and never return to participate.

3. Differences of occupations and education of participants are limitations of expression during taking activities .It was found that had participants been different in occupation and education, the inferior qualification likely fear to comment.

4. By PAR principles, the steps are flexible and readjustable by situations, readiness and needs of participants. On account of this research is new to them, the participants attached to the course set by the researcher, which likely contradict to the research principles of PAR.

It may concluded that regarding the process of developing the quality of life indicators applying PAR, the steps are flexible and readjustable responded to the local context, understanding and readiness of participants, including techniques, which is flexible and supports conditions/ factors which will lead success and reduce limitations. This issue will affect in later time. This research is unlikely fix the deadline of the project. It smoothness is depended upon accessing the community, building acceptance among the researcher, participants and persons involved including the readjustment of the process to be flexible to the real situation.

## **CHAPTER VI**

### **DISCUSSIONS**

From Chapter V, findings have been presented in 3 parts, i.e. 1) perspectives of quality of life, 2) quality of life indicators, and 3) developing process on quality of life indicators and conditions/factors determining the process to respond the findings. This Chapter will discuss the findings and it is classified into 2 parts as follows:

1. Discussing the findings
2. Discussing the research process

#### **1. Discussing the findings**

Referring the “quality of life” in general, it is determined as the development goal conducted by the state or the person involved, which is the main trend normally practicing. It means the development planning so that people will gain good quality of life under the views of the policy makers/ persons involved monitoring conditions and factors influencing people quality of life. The “quality of life” is unlikely recalled by individuals and common people in association with the quality of life is connected/ related with others/ social or community others. In other words, the quality of life evolves the structure of the entire society.

This research does not reject the mainstream but an attempt to reflect alternative perspectives/ concept by not only viewing the “quality of life” as a goal for development but also referred to a tool to build learning process for people. It is also believed that the quality of life, which represents the entire picture of the nationwide human society, is not representing the entire truth but it is partially accessing an individual. Rationally, an individual is diversified rather than similarity and uniqueness. On the contrary, an individual is complex, different, and diversified. Having the state/ authority determining the people quality of life by using the same

measurement device in general. It may inappropriate for some groups, some times, some places and some situations.

Allowing an individual to determine and speculate quality of life in daily living containing relationship with other in society or in the same group. It is likely another method/ tool to help develop people quality of life, which is the goal of the development to be more achievable. In association with the current development trend, it is unavoidable to give opportunity for “the developed” chance to speak about experiences and sentiments, on account of quality of life concerns life and mentality.

This part is to discuss the finding in Chapter V related to perspectives of quality of life and its indicators.

### **1.1 The perspective of quality of life**

Theoretically, by concepts of definition and significance of quality of life state that good quality of life or well-living is the happy and satisfied existence contained many factors well integrated in the life of an individual. It gratifies body and mind. A quality of life is not a factor to any area because human life is not only for survival but to live with happiness and quality deserving to be born as a human being. Countless factors are therefore related but each one has its degree of significance depending on perception, perspectives and values of societies.

Findings of quality of life by defining / giving perspectives of the target groups are relevant to the theoretical concepts mentioned above. It proves that having good quality of life among each individual might have been differently depending on only either one or many factors. Defining factors in this research, the target groups define that factors having good relation and influencing good quality of life are family, education, stability, security of life and property, social and environmental relation. All these factors involve with the life courses of the research participants daily encountering them. It is concluded that having good quality of life viewed by the research participants is the eradication of problems, making life in the future well prepared to meet the needs, and good relation with social institutions. Such viewing on

definitions proves that relations of the factors involve living or different daily living activities, which engulf personal, family and social activities.

Discussions of such conclusion are essentialized as follows:

#### 1.1.1 Perspectives of quality of life by demography

Theoretical concepts on quality of life state that demographic factor is a significant one influencing the living condition or nature of lifestyle in each society and affecting different quality of life.

Findings of quality of life perspectives of people who participate the research process in the housing estate has been found that they are different with regards to gender, age, experience, and occupation related to each individual lifestyle, Their differences are analyzed as follows:

Gender: different perspectives on quality of life related to gender are the males view and define quality of life related to income, life assurance, security of life and property, healthiness and a warm family. On the contrary, the females view and define related to family, children's education, social relation and income.

Perspectives on quality of life viewed by the males and females reflect that essentializing different factors affecting quality of life are different and based on gender, which identifies different roles. The male being the leader of the house has the responsibility to find income supporting the family. So, they identify income, life assurance, security of life and property, and healthiness so that they will not be sick which impedes working. On the contrary, the females primarily take care housework and attend family members even at present the female too needs to seek income to support the family but their main duty is to attend family members. They then prioritize family, and children's education in terms of quality of life.

Age: different perspectives on quality of life related to age are youth views and defines it relates to education, income, and happiness, whiles the working age group views and defines it relates to income, stable life, and security of life and property. The elder views and defines it relates to spiritual happiness, generosity and physical and mental health.

With different age participating in the activity, they might have different perspectives on quality of life which follows period of age. Prioritizing education, income, and happiness among youth is they are at the age of studying, being cultivated that education is the stair to success. Having good education means good job with good pay and entails happiness. Such perspectives reflect future expectations. The working age group views and defines quality of life relates to income, stable life, and security of life and property, which reflects the existing encountering. The elder with prolong life experiences and the resting age, they then views and defines quality of life relates to spiritual happiness, generosity and physical and mental health so that they will not be burden tot their children including happiness to witness the success of their children.

Education: different perspectives on quality of life related to it are the higher education (pre-bachelor degree, bachelor degree and higher) clearly views and defines quality of life with its tangibility. Many factors affecting quality of life are distinguished into many dimensions while the lower education (primary and secondary level) is not evident and intangibly view and define it in few dimensions.

Defining and viewing quality of life among the higher education gives tangibly clarity while the lower education are contradictory and with 1-2 dimensions, rationally, the former has method of thinking and broader frame of analyses than the latter.

Occupation: defining and viewing quality of life are not different from the gender and the age groups but the levels of expectations affected factors affecting quality of life are found likely different. For examples, in area of income, the state enterprise employees expect to have income at the level to create stability for themselves and their family, while the employees/ merchant need sustainable income without debt.

Defining and viewing quality of life are not different from the gender and the age groups rationalizing that each individual has demographic traits within a person. The definition/ perspectives are overlapping, and similarizing by individual roles and status of the moment. Key factors all target groups demographized and often relatively state are income, stability, education, family, and

environment. However, even having either similarity or relevancy among different factors but levels of expectations gaining from those factors are differed by occupation. For examples, the income- its stability is identified by levels of expectations, i.e. those who have permanent income and fixed salary such as the state enterprise employees, and government officials have high expectations over income. Meaning, besides having fixed income, they anticipate the level of stability, and good guarantee, while employees/ merchants expect sustainable income because their income is volatile and uncertain.

### 1.1.2 Factors of defining quality of life

Theoretically conceptualizing good quality of life is classified into 2 natures, i.e. 1) holistic defining, which is not divided into parts but a definition considering of few dimensions, and 2) multi-dimensional defining.

In details, it is seen that perspectives/ defining people quality of life at fieldwork integrates both models, i.e.

The holistic defining, which is not divided into parts but a definition considering of few dimensions, e.g. “well living and fully equipped”, “educated, with physical healthiness without worries”, ‘even with low income but enjoyable only children are educated, employed and obedient”, and so on. Such perspectives cannot be distinguished what is the nature of well living, and fully equipped? They are universally prioritizing the course of living and the physical and mental satisfaction.

The multi-dimensional defining are such as “good education, with stable occupation and income”, “well-living, stable work, security of life and property” and so on. With such perspectives, an individual will assess oneself with many factors. It gives clear picture. From examples, it is seen that quality of life perspectives depend on education, income, stable occupation, and security of life and property.

Such defining/viewing quality of life is originated from demographic differences, which are key factors influencing existence or natures of

living among people. It emphasizes relationship f factors related to living or daily living activities, which contains personal, family and social activities.

### 1.1.3 Levels on factors of quality of life

Theoretically conceptualizing levels on factors of quality of life is classified into 2 levels, i.e. 1) personal level and 2) social level.

Following the perspectives of the target group, it is found that there are 3 levels: 1) personal level, 2) family level, and 3) social levels. At level 1 or the personal level, it is viewed that whether the quality of life is positive or not, it is relied on “oneself” such as “stable occupation and good education”. Such factors have to be sought after by oneself. Level 2 and 3, which are yonder than the personal level, i.e. whether the quality of life is positive or not, it is not either meant or valued by relying only on oneself but also “ relation within family and society,” such as well-being, stable income, good education, happy family and good neighbors “ or “ well-living, life assurance and sympathy.”

By theory, it is classified into 2 levels, while this research it is classified into 3 levels, which is unlikely different. Rationally, by theory the quality of life at family level has been included in the social level. Reason in classifying into 3 levels is to find clarity among the complications in each level of the factors and to allow participants understand levels of measuring the quality of life. It was found that not only people in either urban or rural areas had no different perspectives toward quality of life in terms of dimensions / levels of factors. However, it might be differed in details in classifying dimensions / levels of factors, where the urban people could classify more dimensions / levels of factors. It is likely that the urban context is more complicated than the rural ones.

### 1.1.4 Meaning

Theoretically, the definition of quality of life may concern with well living and satisfaction, which is different among individuals. It relies on perception, perspectives and social values. Therefore, defining a personal quality of

life involves personal values, which compares to a reference or the ultimate goal where an individual needs to reach with differences.

Meaning of quality of life by the target group in this research is classified into 3 main issues, i.e.

1. A good quality of life is referred to eliminating all problems (e.g. debt-free). When all problems are solved it emerges mental and physical happiness.

2. A quality of life is referred to expectation to have perfect life with factors of well living and stability (e.g. stable/secure occupation, good education, and security of life and property)

3. A quality of life is referred to relationship of social institutions, i.e. the family and community institutions. (e.g. warm family, mutual understanding and sympathy/ harmonizing neighbor, and sympathy)

In conclusion, when participants respond question of views/ perspectives of quality of life, it seems allowing them to speak about their experiences and general activities including the social environment and the relationship of surrounding people. Therefore, quality of life is close related or inseparable from different activities of daily life, which are their lifestyle in associated with the social relationships they are involving. It reflects that perceptions, perspectives and social values, which participants related affect ways of thinking about quality of life in different matters such as prioritizing income, and stable occupation. They reflect the life struggles and the course of life required by the urban people, seeking secure income for survival or prioritizing education. They reflect needs of good education under the belief that good education leads to better and secure job or needs of security of life and property, which reflects the existing problems faced by urban societies. Rationally, what is happening as above, because, the target groups participating in this research have been migrated from rural to urban societies. Relationship between the rural and the urban are different. Urbanization creates disunity, and alienation, which is differed from the rural where family system is strong. The target groups need to readjust in order to stay among new society. Such changes, which is certainly positive to quality of life allowing people opportunity to access educational system and diversified optional career to gain more income for living, which is the urbanized

values, transport facilities and public utilities. On the other side, urbanization fills with competition, and haste, which are stressful and leads to conflicts and affecting relation among the community people. Therefore, perspectives of the target group related to factors on quality of life, is not only meaning the personal level it is also prioritizes factors of family and society. (Warm family with understanding and sympathy/ harmonized neighbors with unity and sympathy). It reflects the current perceptions, perspectives, and values of the target group.

Defining or valuing good quality of life of each individual has no international criteria but it is depended on age, experience, learning, and individual course of life. Attempts in formulating the indicator device intended to be advantageous for everyone with different courses of life are unlikely useful. However, building thinking process and practices to achieve the good quality of life in long run is more indispensable.

The PAR identifies meaning related to “Quality of Life “ in this research that it reflects perceptions, perspectives and social values, they are relevant with theoretical concepts of quality o life as mentioned above. Most community members define “quality of life” through their experiences and sensations of needs/ lacks. Therefore, having good quality of life by PAR is elimination of all problems, making life in the future well prepared to what is needed and good relationship with social institutions.

## **1.2 The quality of life Indicator**

It is found in Chapter 5 that the quality of life indicator of people at fieldwork contains 6 factors with 16 indicators, which are differed from what have been synthesized from the theories that:

### **1.2.1 Indicators and levels of indicators**

By fieldwork there are 6 factors with 16 indicators and grouped into 3 levels - levels of society (community), family and personal. They were all relevant to giving perspectives/ defining given by people. There are 3 levels in defining, i.e.

personal, family and society. The level of community has the 89 indicators, followed by personal, which contained 6 indicators and 2 indicators at the family level as follows:

There are 8 indicators at the community level, i.e. 1) theft and assaults, 2) public utilities (road, water supplies and electricity), 3) garbage collating with hygiene and expeditiousness, 4) number of common activities among members/ communities, 5) numbers of addicts/ gamblers, 6) conflicts among neighbors, 7) community groups/ organizations helping suffering members, and 8) family members being accepted and recognized by community members.

There are 2 indicators at the family level, i.e. 1) conflicts among family members and 2) having a warm family with the presence of parents and children together.

There are 6 indicators at the personal level, i.e. 1) liability, 2) adequacy of 4 basic means, 3) education, 4) annual medical check-up, 5) number of mental health patients, and 6) regular assistance to public interests.

### 1.2.2 Results of weighing

Weighing factors and indicators of quality of life reflects the encountering problems of the community members, which have intersecting issues as follows:

1.2.2.1 Results of weighing factors are found that weight of each factor is evidently different. Community members prioritized factors of life assurance and family higher than factor of environment and followed by factor of spiritual happiness. The factors of social and body and mind are the lowest. The results of this weighing are corresponded with perspectives given by the target groups and reflecting the existing problems they encounter.

Prioritizing the life assurance and family is because most target groups migrate from rural areas and live in the urban cities. It changes their lifestyle and competition for survival is the foremost criticality. It affects relation with family members with haste and competition. It reduces time with family, because most of the time spent with the urbanization. Therefore, they also prioritize relation of family.

Factor of environment is not less significant, which reflects the environmental problems particularly the public utilities, which are the problems of these communities.

Factor of body and mind was the lowest, which reflects that healthiness is not the critical problem for community members. This is large community located 1,420 houses but there is only a clinic (a private clinic). Data collected from the dispensary are that community members are unlikely sick with s acuteness. Most visit with minor causes such as cold and fever.

1.2.2.2 Results of weighing indicators are found that weight of each of them is evidently different particularly related to environment and family.

Prioritizing the indicators on factor of environment, the community members viewed that having public utilities and conflicts related to public utilities among members and the company is critical have viewed prioritizing indicators on factor of environment. So, they likely strongly prioritize these indicators.

Prioritizing the indicators on factor of family reflects the significance of mutual understanding among family members, no conflict among them and it is the factor creating warmness in a family rather than the presence of members together.

Prioritizing the indicators on factor of social, the community members viewed that having common activities shows unity of the community members, which has greater weight than indicators of addicts and immorality at 1.55 times. It reflects that harmonized neighbor and having common activities are vital factor for better community that community with free form addiction and immorality. In association with, the addictive problems is not critical in this communities and most members view that had society been good, with harmony, it was the armor by another way preventing addiction for members

Prioritizing the indicators on factor of body and mind, the community members viewed that indicator of mental health is more weighed than the physical one at 1.40 times. It reflects that having good mental health is more vital than healthiness. However, it is less weight comparing with of the r factors. They are corresponded with the weighing with the factors, which shows that problem of health

among community members is likely insignificant as discussed in the weighing of the factor (No. 1.2.2.1).

1.2.2.3 Testing indicators of quality of life and its sets, which are developed by people compared to those from theories. There are 6 factors and 16 indicators developed by people, which are different from theory.

By quantitative examination in factors of quality of life, the set of indicators synthesized from theories is the conceptual and theoretical-based and international and domestic research works. They are developed to assess quality of life of the target group in general and they are used to measure at social/ community level rather than building the learning process. Also, the development process of the indicators has employed the Tight Perspective techniques. Its nature is called SMART-indicator. The dimensional factors are number some to gain variables related covering all aspects of quality of life and to assess quality of life for holistic development planning.

The device of indicating quality of life synthesized from theories contains many factors (56 items) while the one co-developed by people has 3.5 times less (16 items). Differences of number and classification of indicating device in each factor are generated from different method and perspectives of development. The set co-developed by people is specific for a group, locality and from the insider's view, which is personal. Therefore it is the subjective device rather than an objective device, which is differed from what has been synthesized from theories and from the outsider's view. The objective device is measurable and better calculated than the subjective one. However, comparing details of the set co-developed by people with what has been synthesized from theories, it is found that the latter covers the former with some co-indicators having similar meaning and wording or relative meaning. In some sections, factors even relative but with completely different indicator such as in the section of family (or the warm family) where indicators are differed.

Examining essence of the factors and the indicators, the set co-developed by people contains 6 factors with 16 indicators. They are factors of life assurance with 4 indicators, factors of family with 2 indicators, factors of spiritual

happiness with 4 factors, factors of social with 2 indicators, factors of body and mind with 2 indicators, and factors of environment with 2 indicators. They are differed from those synthesized from theories.

The set co-developed by people is specific for a group, which is not designed to test with other groups. However, it is observed that whatever any population groups, factors and indicators of quality of life of life insurance in living particularly the income becomes key of every target group. From literature reviews, it is found that had they been farmer groups or rural groups prioritize work to eat, and owning land for living. Had they been the urban groups, secure job was prioritized. In this investigation, people in the housing estate prioritize the life assurance (liability), which signifies the secure income resources.

Comparing results from the research process between formulating the indicator devices at the national level and at the community level, it is found dramatic differences in many issues, i.e.

1. The national level is focused on data which has been already collected such as data of The National Rural Development Data System (NRDDS), necessary basic data and so on. At the meantime, the community indicator, which may reflect the locality but there, is no filing because it is a new device and has never been conducted.

2. There are differences in the purposes of the indicator device at the national level as well as the difference in the concepts, methods, data collection process, examination process and the expected results.

**Table 17:** Comparing between Community Indicators and National Indicators

<b>Issues</b>	<b>Community Indicators</b>	<b>National Indicators</b>
Philosophy of the Paradigm and Perception	Device reflecting the quality of life of ways of living of the community members	Device of human development reflecting level of human development and development conditions
Goals	<ol style="list-style-type: none"> <li>1. employing the process of formulating device as the tool of development</li> <li>2. The device is employed to assess community conditions.</li> </ol>	<ol style="list-style-type: none"> <li>1. Employing the device to assess conditions of human development</li> <li>2. The national device</li> </ol>
Method and Data Collection Process	<ol style="list-style-type: none"> <li>1. The community keeps the co-developed device.</li> <li>2. the community uses and assess the data quality</li> </ol>	A survey is employed in data collection by outsider
Expectations	<ol style="list-style-type: none"> <li>1. The community owns the device</li> <li>2. the device is corresponded with the community/locality</li> </ol>	The set is employable nationwide.

3. Formulating the national indicating device will prioritize the issues of development or effectiveness and efficiency of managing the development job. It includes measuring the quality of life but by the government agencies. Meaning to what levels the government ensures happiness for its people. (Basic necessity). It is likely meaningless to the locality. At the meantime, the community device formed in the locality, it should reflect the local perspectives prioritizing issues of quality of life and the current living conditions.

4. The national device emphasizes outputs, while the community devices prioritizes output-outcome being the process. Also, results lead to seek solution to meet the community conditions.

With such differences, the attempts to bridge the community device with the national device for implementation conducted by units involved, is

likely proper. There is necessity to investigate and develop indicators of people quality of life in different contexts. It includes to employ the develop indicators to e tested by broad perspective, which allows alternatives in applying indicators of better explanation to be used in measuring the quality of life among people in different contexts. Benefits of linking individual and community indicators with developed indicators to the national levels helps policy makers and those involved implement quality of life appraisal among communities with different contexts.

## **2. Discussing the research process**

Revising concepts of developing the quality of life containing concepts of developing human resources, concepts of human life satiability, concepts of social development, and concepts of quality of life development, they were found that 4 concepts have common principles, which emphasizing the population quality development. Integration sciences should be used to assemble issues of politics, economy, health and social to be interrelated. This is accepted as new general paradigm or the lasting development believing in development, and center on human being prioritizing that human is both target and the development process.

The development process by 4 concepts above is focused n developing the population quality to enabling to shift oneself for better quality of life. Based on this, the development process when being led to achieve goal and becoming successful only if people have opportunity to participate in activities and the process affecting their own lives. Such process open opportunity participants to comment, change and learn experience among each other, to learn and to understand the working process and to build consensus and acceptance of each other, which enhances human potentials to change for better destination. It is also allow participants understand the development, which does not separate individuality from civility. It also creates awareness of collaborations to build life stability together. Rationally, it can happen not only from self-prevention but also needs collaboration and assistance for other in the society.

This research is designed in the approach of Broad Perspective as thinking base and employing PAR (Participatory Action Research) with PRA (Participatory Rural Appraisal). It was relevant with the sustainable development and concepts of life development as mentioned above.

Another vital way for the people quality of life is employing device to measure its quality of life. It is a device to estimate development situations so that it can determine alternative of development employing basic data from the systematic assessment. However, there are major limitations and restrictions quite times attempting to develop social index. Meaning, theories of social sciences are found with many weaknesses when being employed to explain the actual phenomena. Formulating previous social index required restricted theories particularly, definitions and concepts.

The methodology selected emphasizes the social phenomena attaching the principles of understanding things only from human perspectives. Such method would reflect truth with clarity and relative to what is investigating including proposing conditions critical to conclusion.

However, even this investigation is focused on actual phenomena but the methodology has not been ignored aggregated knowledge not only concepts, theories or the results related to be foundation of new knowledge building.

In this study, the development of quality of life indicators is the social phenomena need to be investigated based on comprehension of all in the community related to the definition of quality of life in different dimensions. Then data has been formed into concepts compared to the “indicators” gained from evidences by comparing similarities differences, and correspondences of the indicating device. Such development is advantageous to community and workers/ community authorities and it is applicable to the actual situation of how the community is, any dimensions of strength and weakness, and ability to propose alternatives in terms of changeable conditions to reach good quality of life for community people.

Critical factors leading to the achievement of the research process contain 3 major factors, i.e. 1) empowerment, 2) education, and 3) participation. This investigation has employed PAR, which facilitates to bear another 3 factors, i.e.

The empowerment is referred to the process or the mechanism and individual or a community achieves in monitoring one's own course of life. It happens with giving opportunity to the target group to share analyzing situation, building network and allies such as relatives, close friends and neighbors and so on.

Providing knowledge and information, communication and education are run by the researcher through person confident in one's ability and begin to play more roles in the community.( in this study, they are the community researchers). Not only they play the role as decision-maker, resources supporter, service provider/ facilitator, coordinator and so on. Besides, in the research process, there is regular communication of performances in each step to participant to enhance their potentials supplying viable information for decision-making. Direct communications are used with the target group emphasizing dialogues and group meeting and group conversations.

In building cooperation/ participation, it emerges under 4 conditions, i.e. 1) enriching opportunities for community to share what and how should be decide, 2) enriching supports allowing collaboration among community members to achieve the goal, 3) community people gain benefits from operation, and 4) allowing community people to participate in self-assessment. Such achievement gained through efficient keyman in building collaboration and persuades community members to see values of the operation.

Key factor leading to success as mentioned above is the consequence of PAR, which maintains key attributes on principles of concept related to human resource development, concepts of the prosperity of human life, concepts of social development and concepts of quality of life development as mentioned above. Meaning to allow opportunity for people participation in activities and processes affecting their lives. Participants can comment, exchange and learn about experiences of each other, learn and understand the working process, learn and understand the

working process and to build consensus and acceptance of each other, which enhances human potentials to change for better destination. It is also allow participants understand the development, which does not separate individuality from civility. It also creates awareness of collaborations to build life stability together. Rationally, it can happen not only from self-prevention but also needs collaboration and assistance for other in the society.

In this research, it allows opportunity for community members to share in every step of operation to take action in what they are interested, improving, and changing their residential society. It is to build the awareness selfness, which helps community members trust themselves, learn to listen and c\exchange ideas, learn how to honor each other and with others in societies. It will build collaboration among individuals and groups will support each one to learn and to collaborate in order to change society , and their communities .It counts reinforcing people and besides, it is a research process to support reinforcement for community members, it is also to create knowledge for the participants by co-generative learning. It gradually steps from partially till totally participating. It also builds synergy, and cooperation to stem new knowledge from acting.

However, even if it were the PAR-based and accepted its values particularly enriching opportunities for community people to significantly participate in any decision-making on impacts of their lives in future, there is still restrictions, which should be aware in implantation as follows:

1. PAR Methodology- the research question should be set form the community problems but this research, the research questions are stemmed from the researcher itself. It counteracts the principles of PAR. By this basis, had PAR been used as research instrument, it needed to develop other techniques to reduce limitations. In this research PRA (Participatory Rural appraisal) has been developed to evaluate problems and needs of community people whether they are interested in the researcher's issues, which remedy limitations in employing PAR technique.

2. In PAR approach, its theoretical principles have broadly identified 5 working steps, i.e. 1) the pre-research, which contains the selection of the community,

access of the community, integrating the researcher and the community, surveying the primary data of the community, and the dissemination of PAR concepts among the community. 2) The research period, which contains analyzing problems with the community, selection and training the community researchers, designing research and data collection, analyzing data, and presentation to the community. 3) The planning period, which contains, identifying projects or activities. 4) The implantation period, and 5) the follow-up and evaluation. In practice, the researcher cannot fix all the steps because by PAR principles, they allow local people to participate in identify the working process in all steps. The researcher will not frame the work because it will be the directing and limiting the idea of people. Such type of working requires flexibility and readjustability of the working process at all time. Therefore, at this step, it likely requires times and expertise to motivate unity among people, when outcomes are likely late to be achieved. The limitations during this research are found that it is a new thing for the community members, it takes time to create understanding and acceptance to participate in the investigations as well as to follow the flexible research methodology. In practices, it is found that the community researchers and other participants still adhere to what have been identified by the researcher, which contradicts to PAR, when the researcher will not fix research framework as directing.

3. The follow-up and the evaluation are vital in PAR approach and by principles, the evaluation in PAR has to be periodic till finalizing the investigation, which takes time. In this research, the follow-up and evaluation of behavioral changes for better quality of life are unlikely because the investigation takes considerable period of time and unable to fix the final period. The researcher has readjust methods by evaluating potentials in developing the indicators for replacement. It was based on hypothesis that had the research-participants been potential in learning and acquiring adequate knowledge and understanding to develop indicators of quality of life; they would have been able to apply as instrument to improve themselves for better quality of life.

Besides, the follow-up of PAR contains many approaches either qualitatively or quantitatively, where they have different advantages and disadvantages. Then the researcher selects the proper one, which is not so difficult for community members to

understand and able to work out. Had it not been proper, it wasted time and might have been impeding the investigations.

Besides the limitations of PAR approaches as mentioned, in this research, it is still found that there are limitations in testing indicators developed by people. Being a selective study, it is not intended to apply its outcomes for explanation at large. Therefore, the testing has been conducted within communities neighboring to the areas and with the same context. The indicators have not been applied for testing in communities at large. Then, it cannot identify the consequences which quality of life indicators are viable to significantly explain within the different contexts in particular.

## **CHAPTER VII**

### **CONCLUSIONS AND RECOMMENDATIONS**

A study of developing quality of life indicator of people by participatory process has been conducted in the housing estate, Maha Sawat sub-district, putthamonthon district, Nakhon Pathom province. A broad perspective approach has been employed as thinking base including PAR and PRA techniques are used as research instruments. Objectives is to develop quality of life indicators of people living in housing estate communities using Participatory Approach. Research questions are 1) what are the perspectives of quality of life among people living in housing estate communities?, 2) what are quality of life indicators of people? and 3) what is a process in making quality of life indicators by people, what conditions/factors being the determiners? Presentations are as follows:

1. Conclusions of the participatory process in developing the quality of life indicators
2. Conclusions gained from the participatory process
3. Lessons learnt from research
4. Recommendations

#### **1. Conclusions of the participatory process in developing the quality of life indicators**

The research has been divided into 5 steps, i.e. 1) estimating the general conditions and data collection of the community, 2) seeking meaning and factor of “quality of life”, 3) selecting quality of life factors and indicators, 4) testing quality of life factors and indicators and developing the weighing systems, and 5) evaluation. The process taken by the stated method, it may conclude that the participatory action research and the participatory rural appraisal ( PAR and PRA model) are the strategies to develop people potentials and self-awareness to achieve self-confidence, learning

how to listen and exchanging ideas, which will help synergize creative activities, ability to analyze situation, analyzing community problems affecting quality of life. Key to this study is presenting the turn of the research process emphasizing conclusions and findings to the process and the context. The researcher needs to readjust roles to build confidence and trust. The main goal of such research process requires encouraging the existing personnel in the community to take leading role of the community development having the outside researchers as assistant to furnish research knowledge and skills as well as coordinating. In this investigation, the researcher plays as the process manager to generate learning for both researchers and people. The researcher is not only the passive observer but also an proactive as performers on account of it requires a person to input an intervention into the fieldwork which is different form the conventional researches where hypotheses have been advanced. In this study , however, it is a learning from the construct activities and finally it identifies the empirical evidence.

Even PAR has been accepted in its values but there are limitations to be aware of for the research conducted in the new community, which does not experience such process before. They are, 1) PAR technique- the research question should be set from the community problems but this research, the research questions are stemmed from the researcher itself, which counteracts the principles of PAR. 2) PAR technique cannot fix all the steps by its principles, but to allow local people to participate in identify the working process in all steps. Therefore, at this step, it likely requires times and expertise to motivate unity among people, and it is likely to anticipate the desired achievements. 3) The follow-up and the evaluation are vital in PAR approach and by principles, the evaluation in PAR has to be periodic till finalizing the investigation, which takes time. Besides, the follow-up of PAR contains many approaches either qualitatively or quantitatively, where they have different advantages and disadvantages. Had it not been proper, it wasted time and might have been impeding the investigations. 4) It is found that the community researchers and other participants still adhere to what have been identified by the researcher, which contradicts to PAR. the researcher will not fix research framework, which will be directing and opposes to the principles of PAR.

## **2. Conclusions gained from the participatory process**

It covers the results of the study, definition of quality of life, quality of life factors and indicators, factors/conditions affecting the research process, and findings of the potential evaluation of participants. Results identify that course of life, age, experience, and learning of each individual affecting thinking methods on quality of life in different things. It is then concluded as follows:

2.1 The definition of the “quality of life” of an individual comprises values or personal values. It seems to be the reference or the ultimate goal that an individual has to achieve, which is diversified but they mainly engulf 3 issues, i.e. 1) a good quality of life is referred to eliminating all problems, 2) quality of life means expectation, and 3) quality of life means relations among social institutions. They reflect giving meaning by defining through problems experienced and following the sentiment of need/lacking of the things. Therefore, having a good quality of life by the definition of the community members is to eliminating those problems and turns the future life well equipped in what one wants and good relation with the social institutions as well.

2.2 The PAR is conducted with techniques of group conversation and the opened floor to seek conclusions in order to determine factors and indicators of quality of life also it includes weighing the factors and indicators of the quality of life viewed by community people in the housing estate. Conclusions are there are 6 factors, i.e. 1) factor of life assurance, 2) factor of family, 3) factor of environment. 4) factor of spiritual happiness, 5) factor of social, and 6) factor of body and mind. Also 16 indicators are concluded with following key indicators, i.e. 1) liability, 2) adequacy of 4 basic means, 3) education, 4) theft and assault, 5) conflicts among family members, 6) a warm family and the presence of parents and children together, 7) public utilities (road, water supplies, electricity), 8) hygienic and expeditious garbage collecting, 9) community groups/ organizations helped suffering members, 10) conflicts among community households, 11) household members regularly helped public interest, 12) household members were accepted/ respected by community members, 13) number of common activities among members/ community, 14) number of addicts/ gamblers, 15) number of mental disorder patients, and 16) annual health check. The important indicators such as:

The indicator of liability, which shows that economy is vital and leading.

The indicator of public utilities, which shows the conflict among community members and the company, which is the critical problem of this community and finalization should be found and solved.

The indicators related to community, which are having common activities among members/ communities, conflicts among community household, and community groups/ organizations helping the suffering members. They show the relationship of the expectations toward solution of problems in the community. Some community members believe that had members united, been generous and peaceful, it would have been the shield to protect other problems such as problems of narcotics and immorality.

The indicator of understanding within family members, which is another key because most members are migrants from rural and settling in the city, it changes their lifestyles. Seeking to survive affects relation among family members. With haste and competition, it reduces time of presence with each other because most of the time have been spent with the urbanization. Family relation also becomes critical target.

The indicator of physical and mental health was unlikely the problem related is not critical.

2.3 Factors/conditions affecting the process of formulating the quality file indicators contain success factors and limitation factors, i.e. 1) success factors are the positive entry points, designing the process with activities participated with community in two-way communication to generate knowledge for all parties. The design of work in the model of sub-grouping covers all areas allowing all members opportunities to extensively participate with the research. It is enhancing roles of leaders furnished with key roles in research as a community research. It is to point out the advantages the community will gain from research including designing activities appropriate to the course of living among the community members. 2) the limitation factors are the nature of an urban community accommodating diversity of being not only occupations, genders, education but also the perceptions and awareness toward different problems. They become limitations that only specific groups participate in

the research. Time limitations of community members affecting the process and likely take time in conducting research. Difference of occupation and education among participants create limitations affecting their expressions. Also, adhering to working process set by the researcher is likely contradict to PAR but the researcher will not directing.

2.4 Evaluating potentials of research participants, which is divided into 3 levels, i.e. 1) people are sufficient potentials in this research - they are vested with leadership nature, to some extent accepted by community members. Most are civil servants with rather stable status, having career experience allowing them to learn faster and to perceive its advantages. They are 25% of the consistent research participants. 2) The developing potential people- they consistently participate activities. They are 62.5% of the participants, and 3) not understanding the process group - they are people who are not consistently participating. This group has been divided into 2 groups, i.e. a group enthusiastic to participate in activities unlikely disturbing the time and the group of not interested in the research process.

2.5 Evaluating the research process - it is found that advantages are it emerges many platforms of exchanging ideas in the community. Members are more well prepared, more responsible, less egocentric but discuss more on public interests and collaboration in the community activities. It creates exchanges and perception of members' problems leading to a certain level of solution during conducting research. It also allows the group leaders (the community researchers) broader ideas. However, some disadvantages are methods, procedures of formulating and data collections. Being the new thing, most members have no prior experience in association with the process needs extensive recording, which is unfamiliar to the community members.

### **3. Lessons learnt from research**

There are 3 parts to be learnt from this fieldwork, i.e. lessons from the process of developing the quality of life indicators, the lessons as being a researcher, and lessons learnt from community

### **3.1 Lessons from the process of developing the quality of life indicators**

3.1.1 Organizing activities among the urban community needs clear issues, fit well, brief meeting, straight to the point on account of participants face limitations in timing. Had time not been control, it would affect the following meeting.

3.1.2 In meeting, members never fail feel that it is a good opportunity to have activity where it generates knowledge and learn new things, which is hardly found. However, some still find no advantages of conducting indicators, which might have been the rush hour of the city, which shape their personality and ideas of the urban man to prioritize gaining income. This group of members usually throws burdens to leader for responsibility. Seeking collaboration from community members is in form of to fulfill the meeting. Positively, this research generates the infant learning process, i.e. developing indicators from seeking collaboration to fulfill activities and spark community to see advantages of the indicators as tool to evaluate community conditions.

3.1.3 Understanding of indicators among community members is drastic Leaders and some members (group members/the community organization) understand the advantages of the indicators and implement them to evaluate the community conditions.

3.1.4 Evaluating the community potentials - it is divided into 3 levels examining the development of data collection, and pursuing indicators, which contain strength and weakness as follows:

#### Strengths

1. Key man has knowledge and sufficient understanding to form and develop the indicators meeting and corresponding the community course of living.
2. Having platforms to exchange ideas allowing participants opportunities to learn for consistent developing indicators.
3. Having extensive activities allowing key man/participants improve potentials and emerging activities to build relationship within community.

### Weaknesses

1. Method and procedures developing data collection and pursuance participated by people are new and the community has no experience before.
2. Data collection and pursuance need recording, which is indispensable in handling data. Weakness of the community members is most are familiar with memorizing rather than recording.

3.1.5 Creating knowledge in terms of “quality of life” is likely differently defined by age, experience, learning, and each course of living. However, defining quality of life is unlikely separated from activities of daily living. It reflects that the course of living affect ways of thinking on quality of life in different affairs. This research gains knowledge of indicators formed and implement by the urban residents. The researcher I sonly the motivator to think, to converse, and to exchange opinions. Besides, integrated research has been found and to help readjust to meet the investigated community.

3.1.6 The process of developing indicators arouses community members being aware that the community is a valuable resource. At the end, members see vitality of data collection and seeing that the residents themselves should collect data. Rationally, they will be the ones who use make use of the data. Besides, data collected by the community members will be sound rather than collected by outsiders. Meaning, the members are courageous to provide information better than outsiders.

## **3.2 Lessons as being a researcher**

3.2.1 Building close relationship with residents is vital and necessary to initiate participation of the community such as participating community activities in different occasions. It is to better build connection and initiate understanding, familiarity between the researcher and the community members

3.2.2 Roles/ appearance of the researcher is critical. It is not only arouse community members to think and care for the community but also to coordinate through out the project. In this investigation, being the motivator, the researcher employs close issues as positive, simple and directly related to individual. Therefore

the researcher strategize the operations to push through participants to play leader role. It is counted significant to create pride for oneself. Later, the researcher declines the role of MC at the beginning to be the observer later. Rationally, the co-researchers/key man have learnt and can conduct group conversations by themselves.

3.2.3 Operations to build participation are to always recall that community members are enthusiastic with many duties particularly the leader whom the residents respect. Therefore, the researcher needs to reduce their roles to level with others in meeting and also make them accept these roles.

3.2.4 The research needs to have background of thought that participants are intelligent and know the issues well. They should be allowed to speak, giving opinions, and make them feel valuable. Allowing all participants to realize the results creates pride in them.

3.2.5 Being a coordinator, the researcher need to take interest and enthusiastic to the agreement determined by the group does not only mean being an advocate to link but also examiner and pursuit whether the group agreement works. Persons assigned have to fulfill their task. Any restrictions or limitations arisen, the researcher needs to immediately help and advise.

### **3.3 Lesson learnt from community**

3.3.1 Direct communication is meaningful in Thai societies and significantly the speaker itself, if he/she were leader and accepted by members, there would be collaborated. Among the study area, the communication is highly necessary because it is as if honoring the audience.

3.3.2 Operations need to be both consistent and with formally and informally follow –up. The researcher needs to be motivator for activities rather than demanding. It should be as ask for comments, cooperation making member not feeling being pressed or ordered. It will make members willing and glad to participate more.

3.3.3 The research process in community in terms of making understanding and participation finds in themselves diverse difficulties. It depends on the structure of social relation among community people. The study area contains 2 natures of structures, i.e. a structure backed by organizations (the saving group located in Zone 2) and the structure with no backing (Zone 1 and 3). Where there was backing, the members are willing for cooperation with leader having ideas for development and seeing the advantages of the research. At the meantime, the zones without organizational backing, countless techniques are implemented to meet the local context and much effort is invested to clear the understanding.

## **4. Recommendations**

### **4.1 Policy recommendations**

#### **4.1.1 Recommendations for the government**

It is found from the investigation that the quality of life indicators at the national levels are different from the community levels in terms of goal, storing systems, and using the existing data, which turns the national indicators meet limitations in reflecting the people quality of life, particularly in the cities, where authentic indicators are yet to be found. Therefore, had the government required to link the community indicators and the national ones, so that the agencies involved could implement, it should proceed as follows:

4.1.1.1 The agencies involved with developing quality of life indicators should readjust thinking methods of developing them from being output of the process and to be implemented only for evaluation or to measure the quality of life. They should be viewed beyond output but using the developing process as instrumental for learning and to improve behavior leading to the better quality of life.

4.1.1.2 The board of directing to develop the job of quality of life among the people sector should support the agencies involved. For examples. the Office of the National Economic and Social Development Board, and the Rural Development Department should develop people quality of life indicators to develop

storing data system in different contexts. Then the developed indicators should be tested in communities at large to allow more alternatives of implementing indicators, which are high potential of explanation among different contexts. It will be useful to link the indicators at the individual levels to the community levels so as to be further developed into the national levels. This is to allow workforce involved to implement in evaluating the people quality of life among communities with different contexts.

4.1.1.3 The government local administration such as Sub-district Administration can apply the indicators developed by people to plan developing the locality, which might help support and develop the responsible local people for better quality of life. On the other hand, it also links indicators at the community level to the national level. Further, the process of developing quality of life indicators can also be used as instrument in developing or help solving other problems within the community.

4.1.1.4 The government agencies involved with the housing estates and real estates such as the National Housing Project, the Department of City Plan and the private sectors (housing estate developers) should apply the set of quality of life indicators gained from the development process by people to be as data in improving and planning to develop housing estates for better quality of life among residents.

#### 4.1.2 Recommendations for community

It is found from the investigation that the quality of life indicators developed by people contain many levels, i.e. individual, family and community. The indicators in the levels of individual, family and community (some indicators) might have been conducted by the community itself. Some are unlikely because they involve structures and greater affairs beyond capacity. The community should then follow:

There should be consistent operation implementing indicators applicable by the community to continue working using those indicators as tools to develop for better quality of life. For inapplicable indicators, there should be coordination among the local agencies involved or transferred to the village administrative board (had the corporate body of the housing estate been able to fulfill) for assistance or might be raised in an agenda for local development. Further, the

process on developing the quality of life indicators can be as tool to create the either participatory development or help solve other problems of the community.

#### **4.2 Recommendations for further studies**

On account of this research is to turn this process of developing the quality of life indicator to create shared learning among the researcher, the community researchers, members of the fieldwork rather than the ready-made quality of life indicators. Therefore, the developed indicators are applicable for the specific groups, and locations rather for using to explain other fieldworks or other target group. Then, there should be modification on developing the quality of life indicators among other groups. The researcher would like to recommend as follows:

There are many approaches in the research process to create people participation but the researcher has chosen only one. Therefore, there should be a comparative study, and approach of community participation employing PAR with other approach. It is also suggested to apply a comparative study with PAR in other locations such as the urban communities, the outer rim of the urban communities and the rural communities. . Rationally, successes of such research types might be yielded from different conditions. Therefore, a comparative study might have been one of the approaches to develop better knowledge.

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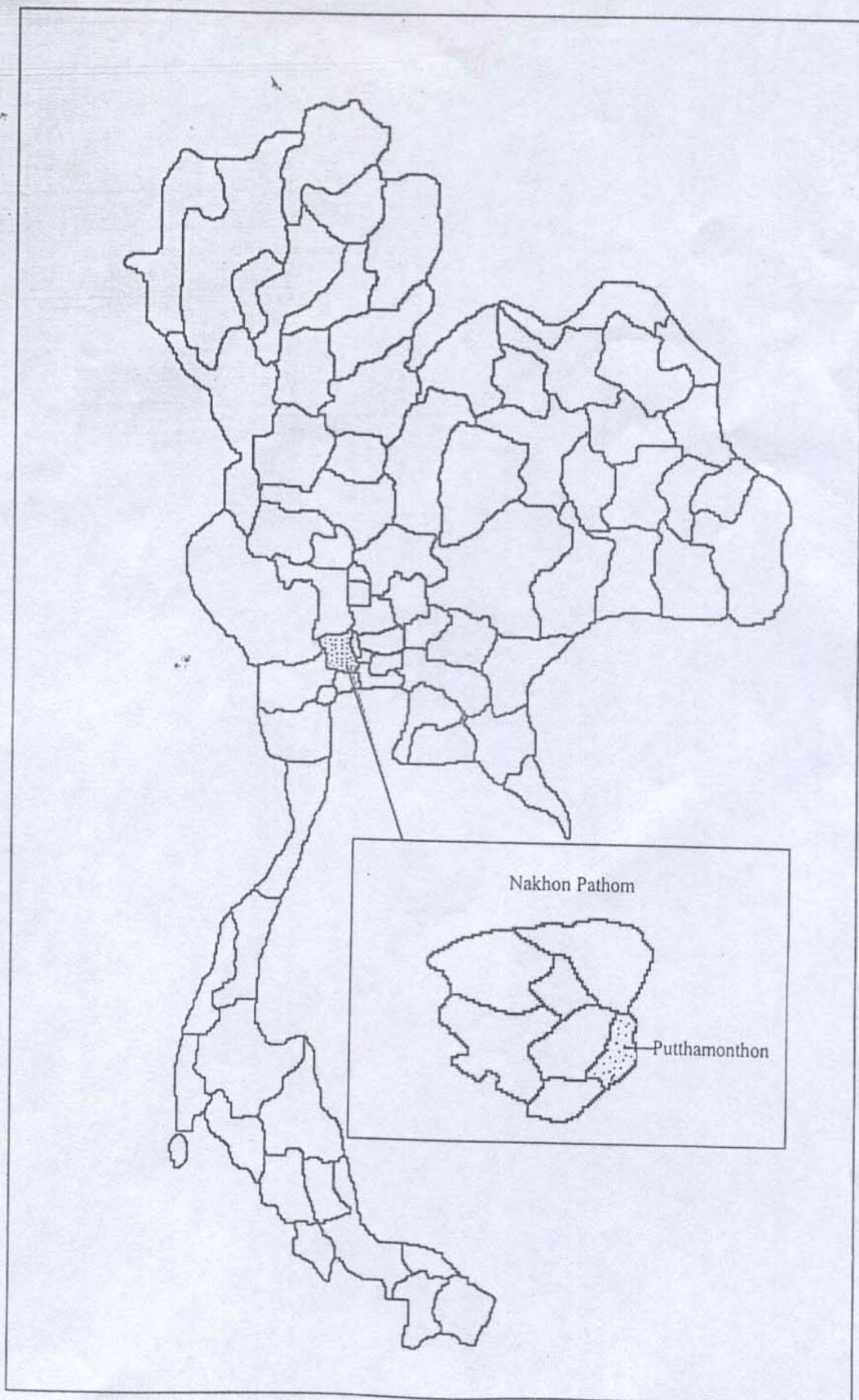
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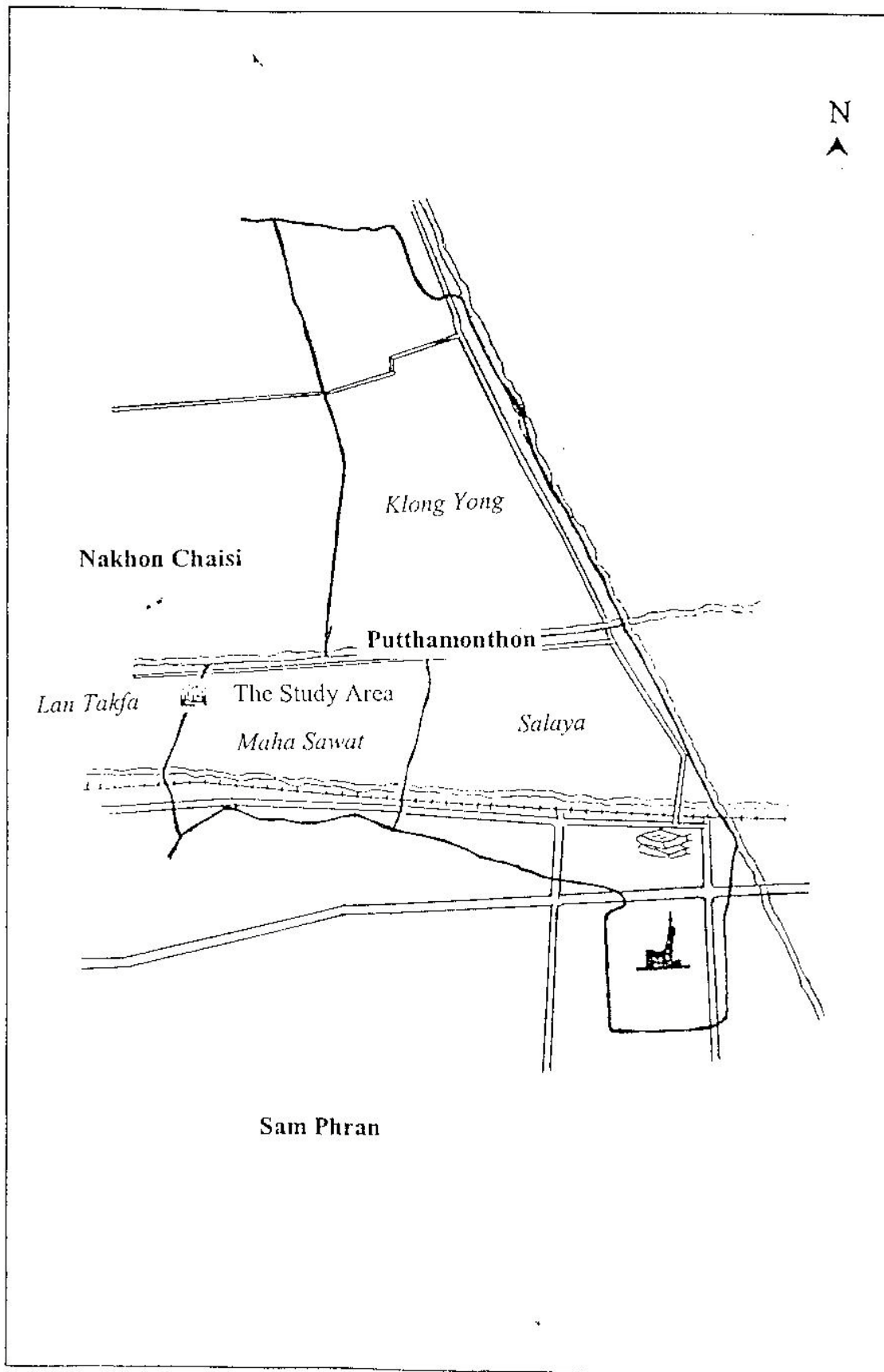
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## **APPENDIX**

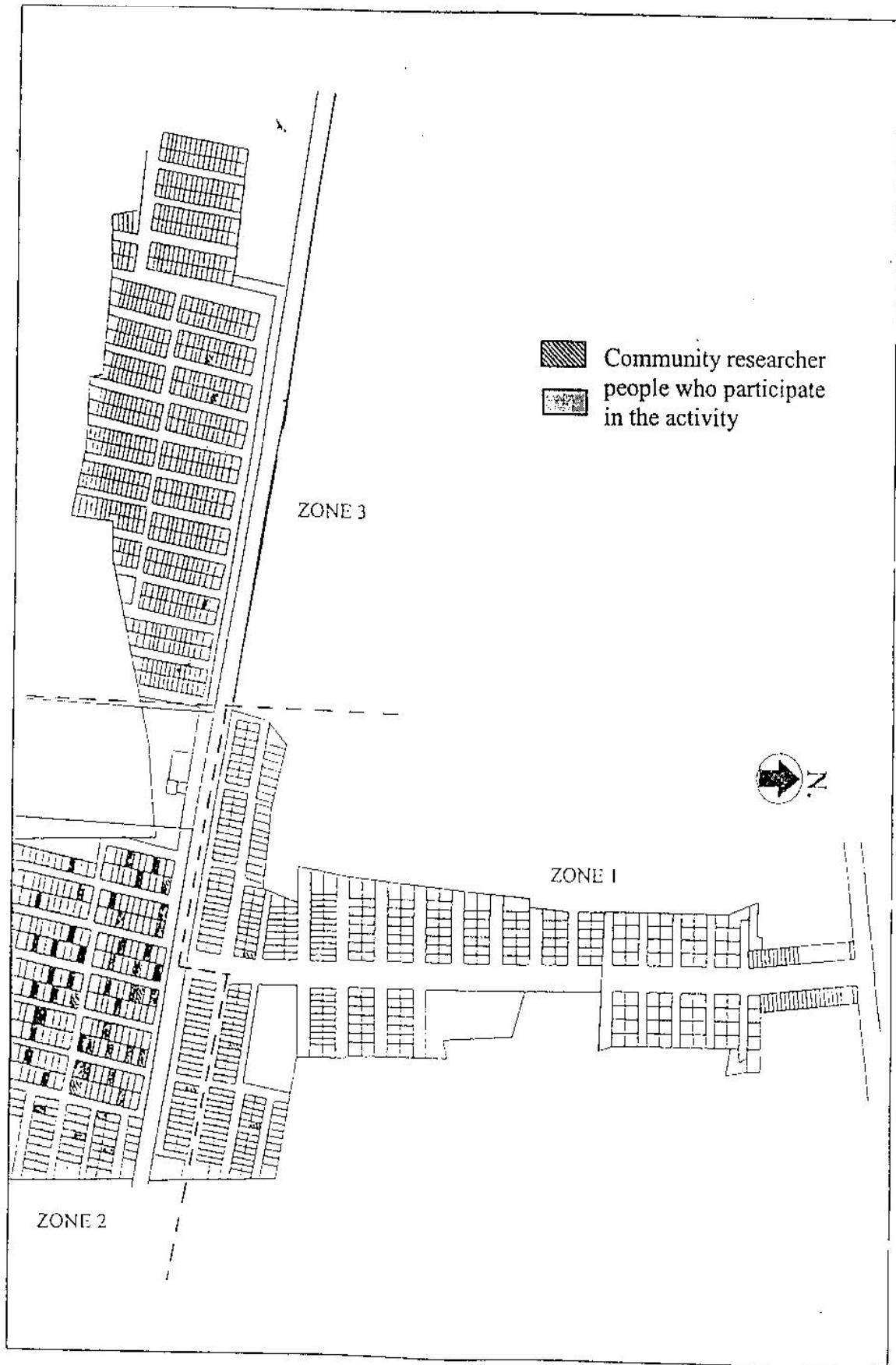
### Map of Thailand and Nakhon Pathom Province



Map of Putthamonthon District, Nakhon Pathom Province and the Study Area



### Sketch Map of the Study Area



**INQUIRIES**  
**Seeking Meaning and Factors of Quality of Life**

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1. May participant introduce oneself with identifying age, education, and occupation?
2. Quality of life or good life in your views means...
3. By your views what should be factors of having a “quality of life” or “good life”?



**Scoring Table in Section of Quality of Life Factors**

<b>Factors</b>	<b>Frequency</b>	<b>Percentage</b>
Economy		
Education		
Family		
Health		
Society and Community		
Environment		
Leadership		
Spiritual happiness		
Safety		

## Questionnaire Comments on Quality of life Indicators

**Instructions:** This questionnaire has been prepared to seek your comments on quality of life indicators. Kindly comment by mark ✓ in front the statement found agreeable to you. You may choose more than one choice and had there been additional suggestions in any factors, kindly add your suggestion at the end of each factor.

Quality of Life Factor	Marking	Statements of Quality of Life Indicators	Additional Suggestions
Lie Assurance	..... ..... ..... ..... ..... ..... ..... ..... .....	Balance income and expenses , no debt Adequacy of 4 basic means Good education Stable occupation and income Employment and affordability Security of life and property Well living Well living and not needy Stable status	..... ..... ..... ..... ..... ..... ..... ..... .....
Strong Body and Mind	..... ..... .....	Healthiness Healthy mind Strong and healthy	..... ..... .....
Warm Family	..... ..... ..... ..... .....	Understanding and sympathy among family members Perfect family and presence of all members Happy family Warm family Blissful family	..... ..... ..... ..... .....
Good Environment	..... .....	Good public utilities (road, water supplies and electricity) Good environment (clean community, fresh air)	..... .....
Good Society/ social	..... ..... .....	Harmonized neighbors Generosity and help each other Free form narcotics and immorality	..... ..... .....
Spiritual Happiness	..... ..... ..... ..... ..... .....	Satisfying to what possess Peaceful stay and not troubling others Helping and sharing with others Accepted by society Knowledge and employment of children Spiritual happiness and free from worries of problems	..... ..... ..... ..... ..... .....

## Questionnaire

### Comments for Weighing Factors

**Instructions:** this questionnaire to seek your comments on quality of life factors as stated in below Table by comparing the first factor with the second one, kindly identify the more vital one.

❶	❷	❶ more than ❷	❶ equal to ❷	❶ less than ❷
Life Assurance	Strong Body and Mind			
Life Assurance	Warm family			
Life Assurance	Good environment			
Life Assurance	Good society			
Life Assurance	Spiritual happiness			
Strong Body and Mind	Warm family			
Strong Body and Mind	Good society			
Strong Body and Mind	Good society			
Strong Body and Mind	Spiritual happiness			
Warm family	Good environment			
Warm family	Good society			
Warm family	Spiritual happiness			
Good environment	Good society			
Good environment	Spiritual happiness			
Good society	Spiritual happiness			

## Questionnaire Comments for Weighing Indicators

**Instructions:** this questionnaire to seek your comments on quality of life indicators as stated in below Table by comparing the first factor with the second one, kindly identify the more vital one.

①	②	① more than ②	① equal to ②	① less than ②
Liability	Adequacy of 4 basic means			
Liability	Education			
Liability	Theft and assaults			
Adequacy of 4 basic means	Education			
Adequacy of 4 basic means	Theft and assaults			
Education	Theft and assaults			
Annual medical check-up	Number of mental disorder patients			
Conflicts among family members	warm family and presence of all members			
Good public utilities (road, water supplies, electricity)	Hygienic and expeditious garbage collecting			
Common members/ community activities	Number of addict/ gamblers			
Household members regularly help public interest	Conflicts among community households			
Household members regularly help public interest	Community groups/ organization help suffering members			
Household members regularly help public interest	Household members being accepted / recognized by community members			
Conflicts among community households	Community groups/ organization help suffering members			
Conflicts among community households	Household members being accepted / recognized by community members			
Community groups/ organization help suffering members	Household members being accepted / recognized by community members			

## **BIOGRAPHY**

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