This paper is about research uses Amartya Sen’s Capability Approach (2000) to inductively devise a set of criteria for evaluating the well-being and quality of life, examining how the spatial characteristics of a place might offer opportunity, freedom and capacities to its people. Analyzing about 200 participant’s, this paper highlights basically two fundamental contributions to the development of an evaluation framework. The first basic observation is that the level of capability equals the available functionings. The second basic observation is that functionings can exist only if there are assets, as determining fators of capability, which cab ne distinguished to be five types: individual tangible assets, public tangible assets, individual intangible assets, social institutional assets, and economic institutional assets. It is argued in this paper that by integrating the capability-assets concept, an alternative comprehensive framework to evaluate an improvement in a community’s quality of life (well-being) potentially to be developed.

Key words: Development Evaluation, Well-being, Capability, Assets

Introduction

The central argument to this paper is that the Capability Approach is able to express contextual and relative characteristics for the evaluation of a region. The capability approach (CA) has been proposed by Amartya Kumar Sen to state levels of well-being. Generally, "well-being" may be defined as a contented state of being happy and healthy, and prosperous (e.g. in Meriam Webster Dictionary, Webster’s New World College Dictionary). It is commonly used to refer to quality of life, to someone's personal experience, and includes all aspects of a person's life, such as physical health, psychological well-being, social well-being, financial well-being, family relationships, friendships, work, and leisure {e.g.Schwartz, & Strack (1999), Kane (2003), Kahneman (2006)} argues the importance of well-being as a concept to measure the comprehensive quality of life in public policies, including economic development policies, and, therefore, the need to focus on well-being as a research area. Similar voices include authors like Martha Nussbaum {e.g., Nussbaum and Sen (1993), and Jeremy Rifkin (Rifkin 2009)}. The concept is currently widely recommended as a benchmark for development policy evaluation {{Nussbaum 2000}, (Clark 2002), (Clark 2005), (Kahneman, Krueger et al. 2006), (Fuentes and Rojas 2001), (Bjørnskov 2008)}.

Well-being needs to be translated into a set of practical indicators in order to measure development progress and to replace material-quantitative-economic indicators such as GDP or income. There is ample evidence to support the necessity to replace material-quantitative-economic indicators by well-being, such as shown in a study on Mexico by Fuentes and Rojas (2001) and in Europe by Bjørnskov et.al (2008). Both show the difference between a community’s perception of their level of happiness, or life satisfaction, and the actual values of quantitative economic indicators. In 2007, Daniel
Kahneman presented what he called the ‘Easterlin paradox’, showing a contradiction between US historical development (1946-1996) in terms of GDP per head, and happiness. This finding showed that when people get richer, it does not automatically imply that their feelings of happiness increase equally.

It is argued in this paper that well-being is also relevant to the evaluation of development progress or success. Türksever and Atalık (2000) have observed the relevancy of well-being in the field of regional development. Their observations show that well-being relates to the degree to which the necessary conditions for satisfaction exist in a given society or region. Well-being is therefore often seen as an important factor in people’s spatial decision-making, for instance on migration and the resulting cumulative migration patterns. Regional development planning is often motivated by the aim of improving qualities of life for people. While well-being generally expresses individual qualities of life, it is also partly determined by regional-spatial conditions.

In the paper CA is accepted as a theoretical base to evaluate well-being through the notions of ‘functioning’ and ‘capabilities’. The notion of functioning indicates activities/role/characters that can be practiced/done/played by or are attributed to a person. For functioning, a person might need material commodities and certain circumstances (both social-economic and physical). Capability is the level of freedom to choose from various available functionings. Having more functionings means having higher capability. Capabilities, therefore, stand for a certain level of available functionings, and, in turn, indicate well-being and quality of life.

There are several reasons of taking CA to evaluate well-being in regional development planning. First, it intrinsically deals with evaluation. Second, it allows for evaluation of essential regional development activities like goal setting and targeting (Sen 2000). It also strengthens the motivation and reasoning behind choice of policy and program, rather than leading to unintended action (Sen 2000). Third, it relates to public goods. Evaluation, targeting, reasoning, and the public good are all inherent to any planning and development task. There are also several other merits of CA when employed in regional development planning compared to other evaluation approaches:

1. It shows a perspective on the individual as the end of development goals. Not only as recipients, but mainly in terms of ‘free and sustainable agents’.
2. It emphasizes the integration of individual and social rationality.
3. It gives a balanced attention to the roles of all types of institutions: market, social, cultural, and political.

In the following sections the merits of CA relative to other approaches are discussed. These sections will also provide arguments on the usefulness of those merits for evaluating well-being in regional development planning. The limitations of the CA approach and ways to mitigate these limitations are discussed in order to make CA applicable for regional development planning practice. Finally, theoretical propositions

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1As explained in chapter one, the term of functioning is unusual in English. However, it will be used throughout this thesis to represent activities that can be done potential by a person. It also may represent certain characteristics such as profession, social or economic status, or feeling, that are attributable to a person.
for applying CA as a tool for evaluating well being in regional development planning are presented.

**Evaluating well-being in Regional Development Planning**

Prior to the CA at least three approaches have been used to determine well-being. These approaches include the commodity approach, which reasons mainly from an economic vantage point, a utilitarian approach, which mainly accommodates psychological concerns, and a libertarian approach derived from John Rawls’s theory of justice.

The commodity approach emphasizes the linkage between commodity and well-being. It focuses on happiness and satisfaction and defines well-being in terms of pleasure attainment and discomfort avoidance, due to the presence or absence of commodities to the people {e.g. as explained by Sen (1985), Clark (2002)}. For the commodity approach, income is an important indicator for well-being. Income growth accumulated as capital is widely used to measure regional development progress and achievement. For the commodity approach, development is seen as a process of capital accumulation, while saving (or wealth) is the indicator for success, as explicitly stated in the following definition.

Development traditionally means the capacity of a national economy, whose initial economic condition has been more or less static for a long time, to generate and sustain an annual increase in its gross national income (GNI) at rates of 5% to 7%. A common alternative economic index of development has been the use of rates of income per capita to take into account that ability of a national economy to expand its output at a rate faster than the growth rates of its population. Level of rate of per capita GNI (monetary growth of GNI per capita minus the rate of inflation) is normally used to measure economic well-being of a population: how much of real goods and services is available to an average citizen for consumption and investment (Todaro and Smith 2006).

The utilitarian approach represents a mainly psychological perspective. It presents measures of emotional or mental achievements such as pleasure, happiness, or satisfaction, as an indication of well-being. The approach gives special attention to the benefits of individuals who use commodities, not to commodities itself. The emotional achievement is seen as the outcome of a process of experiencing consumption, not only as the benefits of consuming a commodity itself {Fuentes and Rojas (2001), Easterlin (1974), Diener and Diener (1996), Parducci (1968), Parducci (1984), Veenhoven (1988), Veenhoven (1991), Brickman (1978)}). This is a significant difference with the commodity approach. Other differences with the commodity approach are that if the commodity approach takes general commodity standards such as income, or goods to assess the well-being of a person, the utilitarian approach considers the uniqueness of individual preferences to evaluate well-being {Qizilbash (1996), Qizilbash 1998}. Utilitarianism thus follows the principle of pluralism, in which (a) a person’s well-being is made up of multiple irreducible components; (b) there are many forms of life that are good and, (c) people give different weights to the components of well-being.
The libertarian approach is based on John Rawls’s theory of justice (1971) that views well-being as determined by the existence of a political basis that provides proper civil rights. In the libertarian approach, personal political freedom is most important for any state of well-being. Rawls argued that public choice of prioritized commodities would concur with public preferences when all community members have access to decision making. There should be proper civil rights to allow public involvement in deciding which commodity is to be produced or provided. Based on the above argument, libertarianism argues that the degree of political liberty and civil rights is basic to indicate well-being.

Amartya Sen has argued that, when employed separately, the commodity approach, utilitarian approach, and libertarian approaches are not adequate to express and evaluate well-being. Sen (2000) pointed out that the commodity approach is not enough to measure quality of life. Sen sees that a high quality of well-being, as well as poverty, cannot be properly measured by income. Sen argued that what matters for well-being are not the commodities that a person possesses, but what a person can be or can do using those commodities. Sen does not deny that the deprivation of an individual’s quality of life (capabilities) can have close links with the lowness of income. It is accepted that quality of life and income connect in both directions: (1) low income can be a major reason for illiteracy and ill health as well as hunger and undernourishment, and (2) conversely, better education and health help in earning a higher income. But a person needs besides commodities also personal abilities to be able to perform (to act certain functionings).

Sen did also not agree to merely use the utilitarian approach for evaluating well-being, especially in relation to public policy, such as regional development planning. He reasons that the utilitarian approach focuses too much on individual preferences for commodities and considers public preference as the sum of individual preferences. Whereas according to Sen, well-being and quality of life cannot adequately be reflected in the summed-up perceptions of pleasure or satisfaction (Sen 2000). Moreover, Sen argued that the aggregative framework of utilitarianism is not sensitive to the actual distribution of utilities.

Sen does not agree either with the libertarian over emphasis on political liberty in determining well-being. Sen argues that there must be a balance between political freedom and the fulfilment of economic needs. It is argued in this thesis that public debate/discourse to decide on commodities will not be effective for a community in all circumstances. For instance, in case of famine a community is in need of basic necessities. In such a situation, it will be more effective to decide on delivering basic needs through a top down mechanism rather than inviting the hungry for a public debate/discourse first. Based on this extreme example, it is difficult to generalize that the degree of political liberty can be the main indication of well-being.

In this paper Sen’s argument is followed that the separate employment of the commodity approach, the utilitarian approach and the libertarian approach is not adequate to express and evaluate well-being. Improving commodities only will not ensure the attainment of a community’s perceptual satisfaction as proposed by the utilitarian
approach. Vice-versa, surveying public ambitions of psychological satisfaction to achieve as proposed by the utilitarian approach, will not automatically give planners an indication of what commodities to provide. These inadequacies occur because the kind of commodities needed by separate individuals to achieve similar mental satisfaction might be different (Qizilbash 1998).

Overemphasizing the level of political liberty and civil rights to indicate well-being will also be risky. Especially when democracy is not fully in place or in case a society is sceptical to public decision-making processes. For instance in a rural community in a developing country, people often behave as ‘silent majority’. On the one hand they typically have a high participation grade in a public election due to effective mobilization. On the other hand they may often not be fully aware of the effect of that election. Their participation in decision-making processes is habitually low. Consequently, political processes to decide on public necessities may easily become elitist. In case of the latter a political discourse will not produce proper information about public problems and aspirations to regional development planners, as suggested by the libertarian approach. In such a context it is thus difficult for planners to really map public needs and the adhering problems and constraints.

**A comprehensive approach to determining well-being**

In line with the notion of functioning in CA, this paper brings together the commodity, utility, and political liberty approach in determining well-being. However, some concepts will be extended. For example commodity should not only refer to income and goods of individual properties but should also include public goods and public property such as water, air, and road infrastructure. There are two perspectives on political liberty and civil rights. The first perspective is that they are an example of non-material instruments (a way) for people to access commodities. The second perspective considers them as an example of ‘circumstances’ that makes it possible for people to achieve certain functionings (to consume certain commodities or to engage in a particular economic production process). Other circumstances are physical, such as the transport system, land use, etc. or social such as culture and the pattern of personal interactions in the region. Based on these additional concepts, functioning as a key concept to determine well-being can be achieved only if certain commodities and circumstances exist, when people are motivated to achieve certain utilities and when there is the individual ‘ability’ to do so. Commodities, utility-oriented motivation, circumstances, and ability are thus important elements to determine well-being and hence important factors to be evaluated in regional development practices.

The adaptation of CA as suggested in this thesis will make the concept relevant to new approaches in regional development planning. By enlarging the concept of commodity to include public goods, and by extrapolating the element of political liberty to be the concept of circumstances (socio-political-economic-physical circumstances), CA as an evaluation framework will more properly include the concept of ‘place’, which is a very important concept for regional development planners. Sen has not yet explicitly described the concept of place itself. The explicit inclusion of ‘place’ in this thesis will arguably make the evaluation framework more contextual.
Besides the concept of functioning contained in Sen’s CA, the advantages of CA related to its concept of ‘development as freedom’, of ‘development as expansion of freedom’, and of ‘freedom as social commitment’ are taken into account. Development as freedom includes freedom FROM deprivations (e.g. illness, hunger, disaster), and freedom TO choose preferred functionings. Freedom from deprivations relates to people’s right to access basic needs, while freedom to choose is to accommodate public individual preferences. However, individual freedom is inescapably influenced and constrained by the social, political and economic opportunities available in the environment. Within an organized society, there will be inter-individual and inter-group exchanges in civil society to enhance freedom. Individual freedom, then, is balanced by social commitment.

Freedom “FROM” deprivation, expanded to freedom “TO” choose, is highly relevant to mainstream planning and its contexts. Aspects like freedom and choice have also been central to planning in a plural society { (Davidoff 1965), (Appleyar 1976), (Essex 1998)}, planning in a democratization era (Storper 1997), planning for empowerment { (Blakely and Leigh 2010), (Sherraden and Ninacs 1998)} and planning in a creative economic/society (Scott 2006). For pluralist planning, development gives an opportunity to accommodate a variety of preferences. In the democratization era, development as freedom accommodates the importance of freedom of speech that allows people to participate in deciding on public commodities. To planning for empowerment, the concept development as freedom, relates to the people’s inherent abilities to escape from basic problems such as poverty. Development should not always give people ‘fish’ but sometime it will be more effective and humane to give people ‘fishing tools’, and to let people find the most effective and efficient way to fish. In a more creative society, freedom will be directed to promote people to find new economic production modes.

CA needs to be translated into indicators before being ready for application in regional development planning. The indicators should be suited to operationalize and measure the level of development, and in the same time be able to provide information about which contributing factors should be improved for the next development stage. An indicator that has been most explicitly derived from CA is the Human Development Index (HDI). Nevertheless, it has not been able to completely represent CA, as will be argued in the following section.

**Current ‘Capabilities” Indications and Measurements**

The 1990 UNDP Human Development Report (HDR) has been an effort to operationalize CA (UN 1990). In reference to Sen’s approach, at its first page, human development is defined as “a process of enlarging people’s choice”. UNDP identified a set of indicators to measure human development, called the Human Development Index (HDI). HDI is an example of a development indicator clearly based on Sen’s Capability Approach. Based on CA’s philosophy, the set of HDI indicators was intended to depict the enlargement of an individual’s opportunity to choose. The index is composed of life expectancy, adult literacy, and real per capita gross domestic product (GNP). The advantages of HDI, according to Todaro (2006) is that it reveals that a country can do much better than what might be expected at a low level of income and that substantial
income gains can still accomplish relatively little in human development. According to Todaro, by including education and health, HDI has broadened the meaning of human development.

However, there are two deficiencies to the HDI as an operational tool of CA. First, HDI is incomplete to comprehensively indicate development. According to Kaley (1991), HDI is a linear concept that depicts only current capability (final outcome), while leaving any clue about when human development has occurred (to what level or extent; and what has caused it?). It has not yet been able to explain the development that took place. A related point is that HDI indicators seem to be exclusive and/or interrelated. Kaley asserts that the index ignores the phenomenon of how communities engage in economic production and transform material outcomes into non-material goals. The HDI index does not give information about the interrelation between indicators; e.g., how per capita income produces health and education levels and vice versa (see Kaley, 1991). A further deficiency is that the HDI index is not contextual. The index is calculated on the basis of comparison of countries. By comparing countries (place), commodities (income) and abilities (health and education), they must be standardized for all places. Consequently, the HDI cannot be contextual to a specific place.

Operationalizing the Capabilities Approach: The Concept of Assets

A contextual characteristic is one of the important concepts in CA to properly evaluate well-being in regional development planning. To be contextual, an evaluation framework based on the CA must be able to evaluate the existence of a variety of inputs and outcomes that are linked to economic production in a community, and to further circumstances that influence the production process.

In the theoretical framework presented in this thesis, all kinds of inputs, outcomes, as well as circumstances involved in a community’s economic production are called “assets”.

Economists are most familiar with the concept of ‘assets’. In the System of National Accounting (SNA) issued by IMF (CEC 1993), ‘(economic) asset’ is defined as ownership from which economic benefits may be derived. NSA divides assets into two main categories: financial tangible assets, and non-financial tangible as well as intangible assets.

Financial-Tangible Assets

A financial asset may be defined as:

"......... assets in the form of financial claims, monetary gold, Special Drawing Rights (SDRs) allocated by the International Monetary Fund (IMF), shares in corporations, and certain of the instruments called derivatives. Monetary gold and SDRs are treated as financial assets even though their holders do not have claims over other designated units. Shares, even though their holders do not have a fixed or predetermined monetary claim on the corporation, and certain derivatives, are treated as financial assets by convention. For convenience, the term "financial asset" may be used to cover both financial assets and liabilities, except when the context requires liabilities to be referred to explicitly."
Accountancy uses the term ‘asset’ extensively, actually referring to financial assets. In the Financial Accounting Standard Board (FASB), it is stated that:

Assets commonly have other features that help identify them—for example, assets may be acquired at a cost and they may be tangible, exchangeable, or legally enforceable. However, these features are not essential characteristics of assets. Their absence, by itself, is not sufficient to preclude an item's qualifying as an asset. That is, assets may be acquired without cost, they may be intangible, and although not exchangeable they may be usable by the entity in producing or distributing other goods or services.

In accountancy, besides money, assets generally refer only to tangible things that can be pledged as collateral such as trucks and other goods that can be sold. This definition would include raw materials, finished goods, common stocks, land, buildings, equipment, mineral deposits, and air rights, water rights, landing slots at airports, broadcast rights, patents, and copyrights. Cash paid in advance for the future use of land and buildings would also be included and do so with work-in-process inventory and fixed assets in the process of construction since they can be sold for cash when completed (Schuetze, 2003).

**Non Financial-Tangible Assets**

Non-financial (tangible) assets consist of non-produced and produced assets. Land and its properties are considered as non-produced assets. Whereas produced assets are distinguished into three kinds: 1) fixed assets; 2) inventories; and 3) valuables. Both fixed assets and inventories are assets that are held only by producers for purposes of production. **Fixed assets** are defined as produced assets that are themselves used repeatedly, or continuously, in processes of production for more than one year. The distinguishing feature of a fixed asset is not that it is durable in some physical sense, but it may be used repeatedly or continuously in production over a long period (more than one year). Some goods, such as coal, may be highly durable physically but cannot be fixed assets because they can be used once only. Fixed assets include structures, machinery and equipment but also cultivated assets such as trees or animals that are used repeatedly or continuously to produce other products such as fruit or dairy products. **Inventories** consist of (a) Stocks of outputs that are still held by the units that produced them prior to their being further processed, sold, delivered to other units or used in other ways; and (b) Stocks of products acquired from other units that are intended to be used for intermediate consumption or for resale without further processing. While **valuables** are defined as goods of considerable value that are not used primarily for purposes of production or consumption but are held as stores of value over time. The economic benefits that valuables bring are that their values are not expected to decline relatively to the general price level. They consist of precious metals and stones, jewellery, works of art, etc. (CEC 1993).

**Non- Financial- Intangible Assets**

There is a growing recognition that so-called intangible assets in a firm may finally influence macro-economic issues. Jesse Christopher (2000) mentions several examples of intangible assets such as working hours, productivity, and particularly on-the-job learning. This finding concurs with the community development profession where more assets are considered. Based on Sherraden’s System of Individual Development
Account’s (IDA’s), for instance, (Page and Sherraden 1997) have proposed to include not only income but also the personal, social, economic, and community affects in an individual household’s wealth.

**The Assets-Capability Relation**

‘Real functionings’ are actions that have been done by people, while ‘real capabilities’ refer to a set of ‘available functionings’ that could have been employed by people. Capabilities can be measured by identifying various functionings, which were already available or have already been performed. Because available functionings are perceived or have been experienced, they can be evaluated well through perception survey. However, if only the level of capabilities is surveyed, a perceptual evaluation survey will not be enough for adequate policy evaluation. Surveys should also guide a community and planners to detect the factors that determine the enhancement or the decrease of capabilities. To meet this requirement, the possibility to use assets to indicate capabilities is proposed in this thesis. The basic idea is that the improvement of assets will potentially enhance capabilities and otherwise.

For the above proposition, “asset” is defined as: (a) material (money, goods, infrastructures), or *non material* (health, knowledge, skill/abilities, relationship, organization, social environment, political condition, property right or access rights); and (b) *from which, a person might take benefit*. The basic proposition of the idea to integrate asset and capability is that the level of capability correlates to available/accessible “assets” according to the following logic:

- For a person, assets can be material or non-material to be directly consumed, as well as material or non-material to be invested in production enhancement.
- For production, assets are seen as resources or capital. Assets can be input or a catalyst in production processes.
- The outputs or revenues from production can be material as well as non-material. The outputs, then, become new assets.
- Using assets in consumption or in production activities is defined as functioning.
- Having property or access rights to many kinds of assets, gives a person the opportunity to do various functioning, therefore it is a capability.
‘Functioning’, the ability to ‘do’ or to ‘be’, can be either classified for consumption or production activities. It can be attained only if people have both pertinent ‘abilities’, i.e. owning or having access to relevant commodities/capital/resources/input, and supportive circumstances in their environment. Commodities, abilities, and circumstances are classified as assets. Therefore, functionings is a function of ability (abilities), commodity (commodities), and circumstances that make achievement of certain functionings possible. The quantity and variety of assets determine the variety of available functionings, or capabilities. Because commodities and circumstances provide opportunities to people and their abilities, it also can be said that capabilities represent the sum of opportunities and abilities, as listed in Table 1.

The scheme in Table 1 also shows the integration of terms explored in this chapter.

\[
C = \Sigma \text{Functionings}
\]

Functionings = f (available assets)

\[
C = \Sigma f \text{ (available assets)}
\]

\[
C = \Sigma f \text{ (commodities, abilities, circumstances)}
\]

\[
C = \Sigma f \text{ (Tangible-Non-financial assets, Tangible financial assets, Intangible human-attached assets, Intangible socially determined assets)}
\]
The scheme (table 1) depicts the integration of terms and the classification logic within the literature on CA and assets. It shows the relationship between terms and provides a basis to integrate both concepts. Classified assets as described in literature on asset may be categorized into three main concepts in CA, which make functionings possible. Material assets, such as land, money, tools, infrastructure and bonds are financial and non-financial commodities. Intangible assets such as values, norms, management, human interrelations, organization, are classified under circumstances. Human resources assets such as skills, knowledge, hours, which are also intangible, are in the CA classified under abilities. Commodities and circumstances give opportunities to persons having abilities to select and achieve functionings. This schematic relationship is used as framework to understand the way people generally self-evaluate their well-being. This framework will also be used to analyze factors contributing to evaluate people’s well-being.

**Evaluation of well-being and contributing factors: A Case Study**

Improvement of general well-being is the overall goal of regional development. However, it is not easy to measure the degree of well-being in a region, as well-being is unique for every individual. The presence and growth of commodities (e.g. income and goods) are not directly linked to well-being. If income is not representative to indicate well-being, then what else should? This research as bases of this paper answer through discussing the result of a perceptual survey indicating people’s self evaluation of their well-being.

The research is conducted in Magelang Regency, in the Province of Central Java, Indonesia. It is also one of the regencies where CSB (Central Bureau of Statistics) has previously done a survey. The region is representative for the study of regional development in general, but, especially, agricultural regions. It has a semi-tropical humid climate and is surrounded by the Merapi, Sumbing, and Merbabu volcanoes. The area is about 1090 km² with a population of about 1.2 million people, resulting in an average population density of 980 per square km. 85% of the population lives in rural areas and 15% in urban areas. It has an average precipitation of more than 2000 mm per year, with several big rivers; most of the region is relatively fertile. The population grows slowly with an annual average rate of about 1.2%.

<table>
<thead>
<tr>
<th>Capability level</th>
<th>Tangible Assets</th>
<th>Intangible Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>= Σ Functionings</td>
<td>Land, Money, Tools, Infrastructure, Bonds etc.</td>
<td>Skill, Knowledge, Hours</td>
</tr>
<tr>
<td>= Σ Benefits from Assets</td>
<td>Non-Financial</td>
<td>Financial</td>
</tr>
<tr>
<td></td>
<td>Commodities give Opportunities</td>
<td>Human Resources</td>
</tr>
<tr>
<td></td>
<td>Abilities</td>
<td>Circumstances give Opportunities</td>
</tr>
</tbody>
</table>

**Table 1. Assets Classification as Sources of Capabilities**
The region has a relatively strategic position in this sub national region, as it is located between two cities, Semarang and Yogyakarta, that are second order cities in the national hierarchy. Semarang is an industrial city at the northern coast while Yogyakarta is Indonesian’s second tourism destination and Indonesian’s largest inland educational centre. With this location, the regency is considered as not too isolated but not too open either. Its topography features strategic locations that offer many potential economic growth opportunities to sectors such as agriculture and nature-based tourism.

Magelang Regency provides good examples to better understand the role of land to capabilities and how these capabilities are distributed. It is a predominantly agricultural region with a high density of farms and an average farm size of about 0.15 ha to 0.25 ha per household. The already high population density and the average small farm size are highly relevant to understanding the quantitative value of land to the community. There is very little change in land availability, which in turn has considerable consequences for the household economy. The reason is that the land is arable and the main economic resource for the region, but at the same time limited in supply. Therefore the way people perceive land is a significant issue.

Thanks to a variety of governmental development investment programs in the region, there has been a significant development of infrastructure and facilities such as electricity, market, health facilities, schools, and roads. Financial subsidies and fiscal policies that directly or indirectly influence communities’ cash situation are also quite intensive in this region. Magelang region is therefore a good case to explain the role of infrastructure and goods to assess the source and distribution of financial assets.

The region is also a good case from a planning view of point, as it is covered by a relatively complete set of policies developed by the government. Some examples of policies intervention for this region are the technological development strategy and its supporting institution for agricultural intensification, several kinds of economic measures focusing on poverty alleviation such as IDT (1993 to 1996) and PNPM-PPK (Program
Public perception of the regional economy

A perception survey was conducted to document people’s self-evaluation on their well-being. Earlier research in Magelang Regency showed that there is a contradiction between public perception and economic growth. The extensive two-stage random sampling perception survey conducted by the Central Statistic Bureau (CSB) of Central Java (Indonesia), on the quality of life of farmer households is a case at hand. Unlike CSB, which used an extensive random survey to assess well-being at the community level, this research utilized a snowballing technique. The purpose has not been the amount of interviews of classified stakeholders, but the variety in answers and the reasoning behind them.

The CSB survey has proved to be useful. The resulting picture suggests reconsidering absolute commodity measurement as an indication for well-being. The survey did not succeed, however, in depicting differences in well-being between groups. Hence it is not clear which groups felt to have an inadequate quality of life, and which groups enjoyed enough of a good quality of life. Hence, there is a difficulty to identify which group should be prioritized as the target of future development intervention. It will perhaps not be so difficult to counter these deficiencies in the future by conducting a proportional sampling approach in surveys. However, the most important missing information is that the survey has not given an answer why particular groups are feeling incapable. To fulfil these deficiencies, a perception survey should encompass the reasoning of stakeholders in stating their perception of their situation.

In addition to the CSB survey, the community’s self-well-being evaluation was documented and analysed on detection of factors that were considered by the respondents important to determine their well-being. Deep-interviewing respondents and comparison of their answers with observations was the core activity of the survey. In some cases the survey information was also compared to secondary data sources.

The perception survey activities set out by asking simple but fundamental questions related to people’s perception of their current qualities of live, the improvement, and the progress they observe in their environment. The explanation of their perception was not less important. Respondents were selected through a snowballing process. The initial respondents were selected as their characteristics attracted the author on a first encounter in the field. The first respondents suggested the names of the next informants, and so on. There were however three rules to identify representative respondents. The first rule was that they had to represent the variety of jobs in the region. During snowballing, it was decided several times not to continue with the respondents, as their occupation was similar to previous respondents. By employing this approach, the variety of respondents also increased time by time. The second rule was that they had to
represent the variety in age. This in the understanding that development is about changes so that situational comparison in the longitudinal time dimension is necessary. Variety in age is expected to provide different historical based-comparative evaluation possibilities. The third rule is the need for spatial variation. To this end, specific routes for weekly journeys were selected.

Next to the assessment of well-being, also various other assets such as the proposed concept to indicate the range of opportunities to enhance the quality of life are explored. The chapter will now continue to discuss these assets.

Figure 2. shows the answer of the respondents on the question “how would you compare your household economy today to last year’s?”, in percentages. Most farmers stated that their current situation is not clearly different to the previous year. Figure 3.2 is based on the results of the same survey on their feeling about their income. It shows that most respondents stated that their income is not satisfactory.

The above figures support the observation that well-being is unique for every individual. Perception-qualitative surveying as done by CSB is by its uniqueness, perhaps
an inappropriate way to evaluate well-being. Based on the earlier findings of this thesis, however, the impression rises that the feeling is not only about a respondent’s living situation at the time of the survey, but encompasses almost their entire lifetime experience. This impression is supported by information gathered during interviews as supported by the following quote:

“It seems that the situation has continually got worse even though we have been independent for more than 50 years. It seems that the future of our generation is absurd. There are so many unemployed, so that the parents have to nurture them even some time until they get married. While we almost have no land (he said that he only owns not about 1000 m2 farm land), it yields very little as it is often finished before next harvest. It is also difficult to be a labourer, as we need to offer any kind of services to get income. It is okay to the older men like me but I cannot see the younger do the same”; told by Pak T, 60 years old at Candimulyo sub district, a very small land owner farmer who also works in a transportation/truck Company).

”…. Mbah M, 80 years old living in Tempuran Sub district and a former smallholder, hamlet leader and still active as security guard with a company next to his village explained that there is currently much uncertainty. It is true that nowadays it is little bit better compared to the 1960s. At least there is nobody forced to eat only once a day. But, look at the young, many of them are unemployed. Even to obtain work by offering any kind of services in the village or in the market is not easy. They are forced to compete with each other. Although, if they do a serious effort, there must be some opportunity. (I interrupted him to ask for an example of opportunities to get income for young people if they do a serious effort; but he said that he also did not know).

The presented perceptual evaluation contradicts the fact that per capita GDP is based on constant price, which increased relatively year by year (Figure 4), and the growth of agriculture production (figure 4.).

Figure 4. The yearly growth of Per Capita GDP$^2$ of Magelang Regency

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$^2$The reason why GDP is not sufficient to evaluate quality of life was: First, GDP is a composite of aggregated economic achievement, which is not always distributed equally. The second is that certain levels of GDP or income per capita are evaluated differently by different people. The third is that it is partial; just the material side while quality of life is wider than this. However above all, the contradiction might indicate that income is not the best thing to measure the state of development expected by people.
Figure 5. Commodity productivity in Magelang Regency

The growth of production and productivity is also not enough. People evaluate their economic progress not only through the growth of the volume and productivity of their economic activities. Figure 3.5 indicates that people evaluate their economic progress mostly in terms of income not only in the amount of cash income, but also mainly in relation to their expenditures.

Figure 6. the ratio between a farmer’s income with farmer’s expenditure in Central Java Province

Community’s self-evaluation of their well-being

The community’s self-evaluation of their well-being started with the question: how do you assess your present living situation (keadaan/suasana); is there any progress or improvement, for instance on welfare (kesejahteraan)/prosperity (kemakmuran). From the results of snowballing, it showed that profession and age influenced the answers upon quality of life and situational improvement/progressmainly. Typical answers that emerged were “better”, “not so much different/NSMD”, and “worse”. In fact, these typical answers were mentioned relatively quickly. This confirmed the findings of the CSB’s survey, and supported the argument that people do not evaluate well-being in absolute terms, but in relative terms.

This typical evaluation was very much influenced by the perception of each group on the opportunities available to them, such as what efforts they have to do to achieve something. This encompasses their professional opportunities, what they own or
consume such as land, goods, livestock, technologies/knowledge, the market situation, and certain physical and social environmental factors. Table 2. shows the perceptions found classified according to profession and age.

<table>
<thead>
<tr>
<th>Table 2. Groups Perception on Quality of Life</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RESPONDENTS</strong>: 14 30 92 61 197</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Old (&gt;70)</strong> (most are ex)</th>
<th><strong>(50-70)</strong></th>
<th><strong>(35-50)</strong></th>
<th><strong>Young (&lt;35)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmer (entrepreneur)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less diversified business/commodity</td>
<td>Better NSMD worse worse 40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More diversified business/commodity</td>
<td>Better (a little) Better (a little) 18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Small Farmer rent land (Penggarap)</td>
<td>Better NSMD worse worse 22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great farmer*)</td>
<td>Better</td>
<td>Better</td>
<td></td>
</tr>
<tr>
<td>Laborer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hard agriculture worker</td>
<td>Better NSMD worse worse 24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Worker</td>
<td>Better NSMD worse worse 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry Labor</td>
<td>NSMD NSMD worse worse 13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (usually in informal sector, or un clear)</td>
<td>Better NSMD NSMD worse 18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneur</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small Home food industry</td>
<td>worse worse worse worse 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Village shop owner</td>
<td>Better Better Worse 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trader</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Collector/Middleman</td>
<td>better better better 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Artificial Fertilizer</td>
<td>worse worse (a little) 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organic fertilizer</td>
<td>better</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Agribusinessman*)</td>
<td>better</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Transportation worker/investor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Driver</td>
<td>worse worse worse worse 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investor</td>
<td>worse worse worse worse 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government official/Military</td>
<td>Better Better Better 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pension</td>
<td>better</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

*) the same persons
NSMD: not so much different

This table is based on a selection of representative interviews, whereas the following narratives are a further illustration of the typical perceptions found.

“Better”. Mostly successful agribusiness people, traders, and civil servants, such as teachers, and the military, and local government officers typically give this answer. These groups including government officers or pensioners are all engaged in agricultural activities. The size of these groups is relative small. During the time span of the survey, only four successful agribusiness people, who also acted as wholesalers, were encountered. These persons are locally known as juragan. The general impression was that the present situation is better than two decades ago. Due to the development of better transportation networks also in other parts of the nation, the market was enlarged with better opportunities to sell more local products or at a higher price. Better access to agrotechnology such as fertilizer increased the local productivity in tons per hectare significantly. This implies a positive impetus for their businesses not only by an enlarged market with better prices for local produce, but also by an increased availability of agricultural products for that market. There is however competition with distributors in other regions to export to a few concentrated markets such as Jakarta or the islands Bantam and Kalimantan. Nevertheless, the interviewees asserted that as they had permanent business partners in those markets, and that their business was safeguarded.

Although with different levels of confidence, smaller traders perceived the situation generally also as ‘better’. Some collectors/middlemen, for instance, said:
… as far as we can maintain good relations with farmers as well as with wholesalers (juragan), we can still run our business…. It is okay not to get so much profit but to have continuity.

… I feel the situation is better especially since I have my own car. I can easily move from one village to another without worrying the rent of a car except the gasoline…. The roads are also better now, only on several places there is still gravel, but in most cases farmers bring their commodity to tarmac roads. Of course when supply decreases we have to compete between us then sometime I have to use not so proper ways…

….wow, especially since I got a mobile phone (he showed me), I never experience any loss since I know the normal price in Jakarta. It is not easy anymore for juragan to manipulate the price......... one time I may perhaps develop my business similar to them. I already know a big trader in Jakarta. Only because of lack of investment capital I have not had the chance to start developing my business.... ....I am now trying to get closer access to this person in Jakarta. I hope that he will lend me money and I guarantee him to seek good and enough commodities for him…

…” I am happy with this new auction” said a middleman at the market. Now I do not have to depend on juragan anymore. There are always traders coming from other region to whom I can sell .... (Just to see his reaction, I asked him what would happen if farmers would directly sell their commodities here...) I don’t think so. It will not be efficient for them, except for farmer in the direct vicinity of this market...Especially for commodities such as chillies they usually sell in small quantities for instance once in a week, depending on the size of their land …

Most government officers, living in the rural areas, also mentioned the perception “better”. All of them, especially those born in the region, are considered as belonging to a farmer family; their parents or even most of themselves do still practice on-farm activities. Commonly, they said that being a government officer has given them access to a secure source of finance.

Another group that perceives the current situation as “better” is the recently emerging organic fertilizer producer/retailer. I encountered at least 2 of such individuals in the research area, but according to them there are about 10 persons in this region and many more in other regions, doing the same. One of them said that the 10 who operate in this region are friends who previously were contracted by the Belgium Agribusiness Company in Aceh. After the end of the contract about three years ago, he had tried doing business in Jakarta, but eventually decided to establish his small business here. This person said that due to newspapers, television, and, most importantly, the coming of several NGO’s, farmer’s awareness in using organic fertilizer, or in his term ‘back to organic’, is increasing. And especially in the present days, farmers experience that some chemical fertilizers are difficult to get, and when they are available, only for a very high price.

There are other upcoming actors who also perceive the current situation as better. They are young men who inherit a small piece of land from their parents to cultivate but now also diversify their activities to selling seedlings grown on small shelves. They utilize their yard or even the side the street for this activity.

One of the most interesting findings is that the “better” perception also emerge from people who get ‘help’, due to community’s values such as ‘solidarity’ (see chapter 6), and can thus not be classified by occupation or age. This statement, for instance, came from middlemen who were given the opportunity to buy product from farmers who could have sold the same produce directly on the auction. The farmers continue selling to the
middlemen, as they have become a long time partner. Solidarity happens also within kinship relations that besides performing as a source for informal financial capital, also have significant influence in terms of land management. It is found that among the communities who have a kinship relation a selected group collates land in larger units to be managed/ cultivated. This happens usually when some of them have jobs out of agriculture. By this practice, the members who are still engaged in agriculture have the opportunity to run a farming business on a larger and thus more economic scale. There is no charge required in this practice; nevertheless a person who gets lands will consciously give a small part of the benefit from the harvest to the landowner. This practice also results in ‘better’ perception by people benefitting from this system.

“Worse” was the answer of all hard working agricultural labourers or most of the small holders with less than 1000 m2 arable land. There are two factors that seem to be the reason for the “worse” perception. The first reason is that not having a motorcycle did not increase their assets, mainly land or a set of tools to be used for agricultural production. The second reason is very much influenced by their experiences of the certainty of ever increasing expenditures for daily necessities compared to the uncertainty of their income. They feel that although they have always stepped up their efforts for a higher productivity the revenues did not keep pace significantly while daily expenditures increase continually. Although the productivity and output increased, the cost of inputs increased too, while the yield’s price is uncertain.

Similar to the hardworking agricultural labourer, most 50-70 years old respondents compared the current situation of food security and the margins on commercial commodities with the past. They asserted that although they had not much cash in the past, they never had to worry about food. Compared to the current farmers who focus to on cash crops, formerly farmers (until the 70’s) prioritized growing food crops for their own daily needs and set aside part of the harvest for bad seasons. Only cash crops such as cabbages and tobacco were obtaining prices with a very high profit margin. This group of informants observed that today’s farmer tends to depend on commercial commodities with a too optimistic expectation of market prices as compared to the rice price as experienced in 1970’s to the early 1990’s.

Another group that perceived the current situation as “worse” are the local drivers and industrial workers; they are worried about their future. Local drivers experience the decrease in customers since some farmers have invested in cars for transporting their own commodity and that of neighbouring farmers. Local drivers generally operate cars, owned by shopkeepers and/ or government officers. They said that their situation went even worse when the government raised the price of gasoline. Car owners agree with this perception, they even consider to stop their business and to sell their car. For the active industrial worker two things are worrisome. First the uncertainty of keeping their job, as this is dependent on the economy at large. The second reason is that their salary deflated due to ever increasing daily necessities prices.

“A little bit worse”. Some synthetic fertilizer retailers who generally operate their shops at the village market place (village service centre) are feeling that the situation is worse for them. Some of them are descendants from Chinese immigrants.
“… Now it is not our golden period. (I interrupted, “when was your golden period?”). That was approaching 1980’s to around 1995. (What is happening nowadays?). She said, “Synthetic fertilizer now is expensive and even often disappears so that farmers tend to reduce the use of it, while some now use organic fertilizer. (Why do you not provide organic fertilizer?). ”No. I am not the producer of that. (Is there no producer who would supply you?). “No. They will not. They are local skilled people who produce very little. Most of them co-ordinate farmers by partaking in a farmers group. There is such a membership”. (“About the missing of artificial fertilizer, some people said retailers like you hoard it, is it true?”). “Not really, at least I myself do not do that”. (“So what is your prospect?”). "I am little happy with the overwhelming use of mulsa plastic to avoid parasitic plants. Although the same farmer will buy it back after about one year, there is an increase in the number of farmers using the plastic. Perhaps we will also start to collect commodities (as wholesaler). I have space here”, she said just when her husband was coming and gave a sign to show me that they have talked about that.

“Not so much different/moderate/fluctuating”. This means that the situation is perceived as not having any significant changes; it could be always good or bad. However, the second impression is more dominant as the most comments pointed out by lower class labourers and farmers whose land size is not so different from the regional average (about 2000 m2 wet or dry land). This pessimistic sound is likely due to experiencing a bad situation during most of their live. Their poverty is generally inherited from their parents, which is difficult to escape without external help.

“For us, the situation remains constant. It is perhaps our destiny to be poor. We don’t have any land except this small piece to live on. We don’t have any skills except cultivate a very small-scale farm. However, I cannot blame my parents; they have given all these to me. I hope my son can understand the situation’.

His wife takes part in this conversation and makes a comment:

“I think we should still thank God. This situation is better than them (she point a finger at a particular neighbouring house). We cultivate our own land, whereas they cultivate other persons land, and only maro (share the harvest 50:50 % with the owner)”. 

I asked them whether all families have similar experiences, with not much possibility to improve their situation. He denied and described that there is some hope for families whose members migrate for jobs to other regions:

He said, “as household help, they get an opportunity to develop a simple saving scheme starting to buy gold, goats, cows and, if ONLY there are neighbours like me, who due to adverse circumstances (illness) are willing to sell a parcel of land, they will have a change to enlarge their own”.

Why doesn’t your son go to the city?

“It is difficult for him to get a job with a good salary on only having an elementary school certificate. This is not a problem for women to be a housekeeper. Although the salary is not much, in case she has a good boss she will almost never spend her salary and keeps it as savings”.

All stakeholders’ answers show that there are ‘positive’ and ‘negative’ changes. People were happy when experiencing positive changes and sad when experiencing negative changes, while many are also sad when the situation remains the same. The question is “what should be changed in a positive sense?” By giving proper attention upon the content of the conversation, it is found that there are typical ‘words/terms’ used by respondents. These words (see table 3) are the input to answer that question.
Table 3. Kinds of Assets Perceived Influence People’s Quality of Life

NOTE: If, in the ‘unclear statement’ is indicated that people did not mention the existence of that asset, they do expect its presence.

The result of snowballing shown in the table 3 confirms the results of the 2003 survey by the CSB (see figure 2. and 3.). The proportion of answers from questionnaires and the typical answers derived from the snowballing also relatively corresponds to the occupational structure of the community (see figure 7). The “not so much different/moderate/ﬂuctuating” answers can be linked to farmers with a less diversified business/commodity, to most of the labourers, the informal sector and small entrepreneurs. This group perceived the economy pessimistically mainly because of uncertainty about continuation of their jobs, their business and income. These people have the impression that they have tried to work harder to improve productivity but that their income remains the same. Especially smallholders did realize themselves that they do not have any extra resource to improve their household economy; moreover, their present possessions are limited even only for survival.
From the analysis of factors pertaining to perception it emerges that to achieve a better quality of living people need the “things” mentioned. Apparently, concept of “benefit” embedded in ‘things’ is very important. The ‘things’ mentioned by he interviewees actually correspond to the definition of an asset as discussed in chapter 2. Therefore these ‘things’ will be called “assets”. Only because of considering present ‘things’ considered as assets, people have opportunities to attain their current and future necessities, either for direct consumption or for the production of commodities. Table 3.2 depicts the functions/benefits of assets mentioned by the people interviewed.

**Most Commonly Evaluated Assets**

Besides mentioning the kinds of assets perceived to be very closely related to their current quality of life, people also mentioned several assets, as if they did not have a correlation to their quality of life. These perceptions were provoked by a very general question,” Have you observed any improvements (peningkatan) or progress (kemajuan) here?” I used these two words to translate the word ‘development’ (perkembangan), which is used previously but it is proved to be difficult to understand by most respondents. To this end it was supposed to be translated into the two more imaginable words “improvement” (peningkatan) and “progress”(kemajuan). From the answers to these questions, it could be deducted that the changes in the infrastructure and services condition and the changes of economic modes, are the most noticeable improvements and progress. The presence of new roads, the introduction of temporary health clinics at village or at sub-village level, and better quality of common housing are perceived mostly as peningkatan/improvement. While some phenomena such as new farming techniques, the bigger access to information and entertainment through the very fast growth of television ownership and the presence of many new TV programs were perceived as a kemajuan/progress. People’s general perceptions are relatively homogenous compared to their perception of the quality of living that mostly relates directly to their own experiences. In general, some indicators from official statistical data of the elements most perceived to have been improved show significant changes; the elements that are widely perceived as have been improved/have good progress are those that are easily observed and had have changed drastically such as road infrastructure, motorcycle ownership, and television.
Following are several comments on the improvement of the transportation infrastructure and the built environment.

“….. Wow I think that there are now so many good things and that live is dynamic. It is easy to travel; different compared to my younger years around 50’s of last century. Then it was silent and dark. When I went to the city I had to walk on foot and leave very early in the morning to come back home in the evening”; told by Mbah N (93) villager live at Ngablak.

“…..especially housing, almost every family now lives in a permanent house. Of course there are some people, usually those who are classified by the government as poor families, who still live in bamboo or other non-permanent houses. However, this is in contrast to about 25 or 30 years ago when only one or two families had very good permanent houses. They were mostly hajj, Lurah (village leader), or government officer”, described by P. D, ex lurah in Sewukan, Dukun.

Another example is from a younger man, Mas K (35) villager living at Salaman:

“Even though the prices are occasionally high, now most goods are available. It depends on whether we have enough money or not. Everybody has the opportunity to buy modern stuff such as soap, toothpaste, bread/cookies, kid’s toys etc. This is different compared to the situation when I was a child. At that time only children from the richest villagers could afford it. I even borrowed some toys from them. Now although I am only a construction worker, I can buy some toys for my kid. In the past, as I know, not every village had a rich family”

“….There is also progress in entertainment, almost everyday we can watch dangdut programmes (Indonesian Typical music) on the television. Or if you are deeply interested you may stay tuned on hourly news program. It is also easier for the children to go to school due to the better conditions of the streets in most villages. …..Even many parents give their children a ride on their motorcycle”

As noticed in the comments above, information and entertainment are elements that are perceived as causing great progress. Particularly young informants perceived that life is now more enjoyable because of the presence of television with a variety of programs, the more, as televisions are affordable to most people. Some informants even recognized the fact that several television programs like agro-tourism programs have inspired local people to grow new commodities such as strawberries. Another communication device that is clearly perceived to influence the quality of life positively is the mobile phone that has significantly influenced their economic life, especially formarket related issues.

The easiness in procuring daily necessities is also an element perceived as strongly instrumental to an improved condition of living. There are two aspects to distinguish. First, the improved spatial accessibility due to the transformation of sub-districts to rural services centres with more variety of goods and services, and the increase in numbers of easy to reach shopping centres spread over the settlements. The second is the availability of relative cheap manufactured goods.

People also appreciate the health services programme called Posyandu (pos pelayanan terpadu: neighbourhood level health service) conducted periodically in the neighbourhood providing health services for instance related to the development of children and maternity care free of charge; therefore, people perceive that the quality of life is better.

Another change that is noticed by the people is the changing of the local economy: its production and market orientation. People are aware that farming practices
in their region have been changed drastically. The most obvious transformation mentioned includes the decisions on selecting agriculture commodities, production composition and scale, and farming techniques. The older informants talked mostly on the changing pattern of production priority. Respondent Z (charismatic elderly in Ngablak Village, born in 1910, the juru kunci pertapaan kuno/guide of a sacred place near Ngablak market) explained that farming in this region, especially at the area above 600 above sea level, is more and more commercial. He witnessed that the subsistence mode was practiced dominantly until the early 1950’s. Said Z;

“...Today’s farmers, mainly the young ones, are very clever. They know many kinds of commodities and grow those with very new techniques such as the usage of plastic to avoid parasitic plants, and seeding at selves. Even rich farmer now develops, what is it…”

(Interviewer mentioned whether he means greenhouse).

He said, “Yes, it is (greenhouse)! You know, greenhouse was not found in the past farming practices”.

It is said that in the 1950’s there was an early local societal transformation movement from subsistence farming to semi-commercial farming. The transformation was mainly driven by good prices of horticulture product (vegetables). Farmers in the region were benefiting from ecological conditions relatively suitable for vegetables. Un-intentionally, they ended up with a surplus production of vegetables. Particularly in the 1970’s the price of vegetables was high, and gave a significant profit.

New farming techniques previously originate from two sources: outsiders to the region or the government. As part of the green revolution policy government support emerged for farming intensification and new land management called panca usaha tani(five farming methods), which then changed to sapta usaha tani (seven farming methods). Combined with information dissemination, these programs significantly increased the agricultural productivity in this region as well as in Java in general (see figure 3.8). This applies especially to horticulture. The early 1980’s were the starting point of a booming vegetable production especially after the introduction of mulsa plastics. According to Pak SDM (ex village leader at Kaponan), this modern horticulture farming practice was introduced un-intentionally by a Chinese entrepreneur (by the name of Chong Chong), who came to rent local farmland in the 1970’s. This person ran his business by growing new crops with a new technique, with the help of local labour. The success of this ‘outsider’ convinced local farmers to do the same on the condition that it did not require much financial investment. A method of information transfer through folklore in which farmers share each other’s experiences through informal conversation made this new approach to farming a success.

Although only simple means were used local initiatives have steadily encouraged development of new farming techniques. Locally educated people, especially teachers or people who are active in local-social organizations, have changed traditional agriculture into a more modern commercial business with green houses, newer crops and industrial contracts. This age group of 40 to 50 years old usually have also a better social economic position and the capital to invest in newer agricultural practices. The same people would finally become leading actors in the local economic landscape (see map in chapter 7 on institutional economic assets). If these people are pioneers for agribusiness, the
younger usually are the pioneers in technical experiments. Especially after the economic crises at the end of the 1990s, many young people came back from cities such as Jakarta and Semarang. Some of these were junior high school graduates who, thanks to their technical inclination, delivered local innovation on on-farm techniques as well as off-farm business management. Among the local innovations mentioned is the integration of farming with recreational business, growing seedlings through utilization of vacant land alongside the road, machinery for commodity processing, and local organic fertilizer.

The other obvious transformation in the local economy is the orientation of the market. Besides new practices such as contracting, informants Mbah Z as well as Mbah J witnessed the broadening of market orientation of agricultural produce from the region. They said that after a first focus on Yogyakarta and Semarang, the younger traders operate nationally since the mid 1990s. Another (younger) informant expressed this too:

“Our region is famous now. Big traders come from everywhere, such as Yogyakarta, Semarang, Jakarta, and other smaller cities in East Java. And those juragan such as (he mentioned some names) even have supplied Batam, Samarinda, and Balikpapan since several years ago. Now, let them do that, of course now they have to compete with this market”, Informed P. D (62) the manager of Soka auction market in Dukun sub-District, ex village leader.

![Figure 8: Marketing Orientations for Agriculture Products of Magelang Regency](image)

This map shows the marketing orientation of the products of the region (node) to national markets and even to international exports (see figure 7). First class cities within the island such as to Jakarta, Bandung, Yogyakarta, Solo and Surabaya become the main supply orientation. Export to the outer islands such as Kalimantan, Sumatra, and Batam and international export (Singapore and Malaysia) is possible via the nearest international port in Semarang. The growth of external marketing is the result of combined growth of productivity due to developments in farming techniques, the growth in external demand
(for instance the very high population growth of some cities; Yogyakarta, Batam) and developments in transportation infrastructure.

All stories in this chapter indicate that development relates to the phenomena of ‘positive changes’ such as improvement and progress. The following table (Table 4) is the resumé of elements perceived positively by the interviewees.

<table>
<thead>
<tr>
<th>No</th>
<th>Perceived Elements/Asset</th>
<th>Indicators mentioned</th>
<th>Common Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Basic infrastructure especially Transportation</td>
<td>The present of Road Transport modes Electricity</td>
<td>menengkat/improved</td>
</tr>
<tr>
<td>2</td>
<td>Communication/ Information</td>
<td>Television ownership Television programs Mobile phone</td>
<td>ada kemajuan/any progress</td>
</tr>
<tr>
<td>3</td>
<td>Health facility &amp; Service</td>
<td>Clinic Centre at sub district Posyandu at village/sub village level</td>
<td>menengkat/improved</td>
</tr>
<tr>
<td>4</td>
<td>Housing environment</td>
<td>Housing material, Style, Pavement</td>
<td>menengkat/improved</td>
</tr>
<tr>
<td>5</td>
<td>The services for Daily necessities</td>
<td>The availability of variety of industrial/urban commodities</td>
<td>Some time mentioned as menengkat/improved but some time also mentioned as ada kemajuan/any progress.</td>
</tr>
<tr>
<td>6</td>
<td>Farming Technique</td>
<td>Variety of commodities, new techniques</td>
<td>ada kemajuan/any progress</td>
</tr>
<tr>
<td>7</td>
<td>Marketing Opportunity</td>
<td>Scope of orientation</td>
<td>ada kemajuan/any progress</td>
</tr>
</tbody>
</table>

Table 4. Elements most Perceived Positively

**Summarizing Community’s Assets**

Various kinds of assets of the agro-economic community in this research were extracted from people’s reasoning when they perceptually evaluate their quality of life. Abstracted from people perceptual evaluation on their current living situation, an asset is a concept that includes elements considered to have provided current necessities and some time also opportunities to add new kinds of future necessities. Assets for current necessities for instance are food, housing, health, children’s education, leisure/recreation time, or money to purchase those commodities, while future necessities are those not yet available or affordable. First, all terms mentioned by people were collected then classified. Secondly, their reasoning were classified to whether they are measured quantitatively or valued qualitatively. It was also found that most terms have measurable and valuable characteristics. The next step is to classify those characteristics based on our ability to sense if those terms are tangible or intangible. The tangible assets are those, which have physical attributes such as land, goods or livestock, or other physical entities such as infrastructure and tools. Meanwhile, intangible assets are those which do not possess a clear physical dimension such as human knowledge and skills and other kinds of abilities, such as human’s cognition or perception of objects and events, the way and structure of human interactions, languages of human interaction such as price, and the law of demand and supply.
There are two kinds of intangible assets: Intangible Individual Assets, attached to a human individual, and Intangible Institutional assets, which are attached to a social context. Institutional assets include interpersonal or inter-group relations/interactions such as trust, solidarity, or interpersonal relationships such as kinship, business relations, and social engagement. Commodity price, which reflect the interaction between people’s demand and people’s willingness to supply is also considered as institution. A more obvious institution is organization. Table 5 shows the schematic process of categorization of assets perceived to be significant to the determination of a community’s well-being based on empirical findings.

<table>
<thead>
<tr>
<th>MENTIONED TERMS</th>
<th>QUANTITY</th>
<th>QUANTITY</th>
<th>QUALITY</th>
<th>FORM</th>
<th>OWNERSHIP</th>
<th>SENSIBILITY</th>
<th>CATEGORY ALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
<td>Measurable</td>
<td>Ha</td>
<td>Valuable</td>
<td>Tools</td>
<td>PRIVATE</td>
<td>TANGIBLE</td>
<td></td>
</tr>
<tr>
<td>car</td>
<td>Measurable</td>
<td>Unit</td>
<td>Valuable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mobile phone</td>
<td>Measurable</td>
<td>Unit</td>
<td>Valuable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>motorcycle</td>
<td>Measurable</td>
<td>Unit</td>
<td>Valuable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>car</td>
<td>Measurable</td>
<td>Unit</td>
<td>Valuable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>farm yield</td>
<td>Measurable</td>
<td>Ton</td>
<td>Valuable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>House</td>
<td>Measurable</td>
<td>Unit/M2</td>
<td>Valuable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>salary</td>
<td>Measurable</td>
<td>Rp</td>
<td>money</td>
<td></td>
<td>PRIVATE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>income-expenditure comparison (To/T)</td>
<td>Measurable</td>
<td>index</td>
<td>money</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>saving</td>
<td>Measurable</td>
<td>Rp</td>
<td>money</td>
<td></td>
<td>PRIVATE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>goods</td>
<td>Measurable</td>
<td>Persons</td>
<td>Valuable</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>credit availability</td>
<td>Measurable</td>
<td>Companies/Rp</td>
<td>money</td>
<td></td>
<td>PRIVATE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>health insurance availability</td>
<td>Measurable</td>
<td>Companies/Rp</td>
<td>money</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>guaranteed person availability</td>
<td>Measurable</td>
<td>Rp</td>
<td>money</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>Family member with skill or certificate</td>
<td>Measurable</td>
<td>Kinds</td>
<td>Valuable</td>
<td>Labor</td>
<td>PUBLIC-PRIVAT</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>good relation with</td>
<td>Measurable</td>
<td>Persons</td>
<td>Valuable</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>relation with big trader in Jakarta</td>
<td>Measurable</td>
<td>Persons</td>
<td>Valuable</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>interaction with NGO</td>
<td>Measurable</td>
<td>Unit</td>
<td>money</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>interaction with knowledgeable person</td>
<td>Measurable</td>
<td>persons</td>
<td>money</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>news paper</td>
<td>Measurable</td>
<td>Unit Published</td>
<td>money</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>experienced government's assistance</td>
<td>Measurable</td>
<td>Kinds/Frequency</td>
<td>money</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>clever young people</td>
<td>Measurable</td>
<td>Kinds</td>
<td>Valuable</td>
<td>Human</td>
<td>INTANGIBLE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>local productivity</td>
<td>Measurable</td>
<td>Ton/ha</td>
<td>Valuable</td>
<td>technology/ knowledge</td>
<td>INTANGIBLE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>farming technique</td>
<td>Measurable</td>
<td>Kinds</td>
<td>Valuable</td>
<td>technology/ knowledge</td>
<td>INTANGIBLE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>local image</td>
<td>Measurable</td>
<td>(Distant)/Km</td>
<td>Valuable</td>
<td>technology/ knowledge</td>
<td>INTANGIBLE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>accessed television program</td>
<td>Measurable</td>
<td>Companies</td>
<td>money</td>
<td>technology/ knowledge</td>
<td>INTANGIBLE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing orientation</td>
<td>Measurable</td>
<td>Km</td>
<td>money</td>
<td>technology/ knowledge</td>
<td>INTANGIBLE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“open market”</td>
<td>Measurable</td>
<td>Population</td>
<td>money</td>
<td>Market/economic institution</td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>national demand</td>
<td>Measurable</td>
<td>Ton/year</td>
<td>money</td>
<td>Market/economic institution</td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>gasoline price</td>
<td>Measurable</td>
<td>Rp</td>
<td>money</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>fertilizer price</td>
<td>Measurable</td>
<td>Rp</td>
<td>money</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>daily necessities price</td>
<td>Measurable</td>
<td>Rp</td>
<td>money</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>fuel price</td>
<td>Measurable</td>
<td>Rp</td>
<td>money</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>local production</td>
<td>Measurable</td>
<td>Ton</td>
<td>money</td>
<td></td>
<td>PUBLIC</td>
<td></td>
<td>PUBLIC-PRIVAT</td>
</tr>
<tr>
<td>transportation network</td>
<td>Measurable</td>
<td>Km</td>
<td>money</td>
<td>Infrastructure</td>
<td>TANGIBLE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>new auction market</td>
<td>Measurable</td>
<td>Unit</td>
<td>money</td>
<td>Infrastructure</td>
<td>TANGIBLE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>internal market nodes</td>
<td>Measurable</td>
<td>Places</td>
<td>money</td>
<td>Infrastructure</td>
<td>TANGIBLE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Assets Categorization Process
Incorporating above asset classes, the total asset that may be owned by a person can be expressed as follows:

\[
\text{TOT ASSETS} = (L + \text{pvT} + S + \text{pInf}) + \text{IIA} + (\text{SIA} + \text{EIA}) + (\text{Ex-Im})
\]

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Abilities</th>
<th>Circumstances</th>
<th>Commodities (new)</th>
</tr>
</thead>
<tbody>
<tr>
<td>input in production</td>
<td>processor 1</td>
<td>processor 2</td>
<td>output</td>
</tr>
</tbody>
</table>

Notations:
- **COMMODITIES**
  - \( L \) = land
  - \( \text{pvT} \) = private tools
  - \( S \) = saving
  - \( \text{pInf} \) = public infrastructure
- **ABILITIES**
  - \( \text{IIA} \) = individual intangible assets
- **CIRCUMSTANCES**
  - \( \text{SIA} \) = social Institutional assets
  - \( \text{EIA} \) = economic institutional assets

Table 6. Kinds of Assets in relation to Economic Production Process

This scheme is an improvement from a similar scheme (table 2) in previous section. It encompasses more details based on a better understanding of the kinds of assets perceived to be important. Savings (including livestock), and export-import are highlighted in the scheme, as they are perceived to be relatively strong. They become important indicators, especially for personal views. And by giving attention to the interaction among assets, they seem to be assets that most dynamically are influenced by the existence and quality of other assets. This enhanced scheme is used as a framework to analyse the nature of assets flows (assets interaction) in the coming chapters.

**Testing the relation between Quality of Life and Assets**

Generalized explanations of the types of assets that significantly determine capabilities have been described in the previous section. These explanations will be used as a set of variables to develop an evaluation framework, the main objective of this thesis. Nevertheless, before the set of variables can be included in the evaluation framework the thesis is aiming at, they have to be tested and maybe amended.

The test is mainly directed to assess if:
1. inventoried assets in this chapter are relevant for well-being/quality of life evaluation (by testing whether there is consistency of the relation between perception on assets with perception on quality of life or not);
2. The evaluation of well-being is relative, contextual, and idiosyncratic.

The test has used questionnaires. For this examination, some villages were selected to represent:
1. Villages experiencing economic growth due to agriculture modernization and commercialization;
2. Villages that have footloose industrial area;
3. Villages that perform as rural service growth center;
4. Villages that are isolated, focus on simple farming, and are not densely populated;
5. Villages that are experiencing agricultural diversification (also other business diversification) because of a nearby tourism attraction;
6. Villages, that are dominated by small industry with simple technology

See figure 8. for villages location

Figure 8. Locations of Sample Villages

Random sampling was done to 10 % of the households in every village, resulting in 340 household respondents. A local development facilitator, who has been in practice on the villages for several years, did the survey. Respondents were selected randomly from the list provided by the village administrator. The survey was taken about February 2009.

The first question is similar to the question asked to the respondents in the snowballing survey: to give an evaluation whether their current quality of life is better, worse, or not so much different compared to previous days. Secondly, they were asked to give similar statements (better, worse, or not so much different) to the assets listed. For the analysis, the “better” answers scored 2, “worse” -2, and “not much different” scored as 0.
The survey results give a picture of the relationship between perception of quality of life and perception of improvement of assets. As shown by Table 7. adn figure 9. the individuals perceptions on current quality of life apparently correlates to their perceptions on current assets vailability. When theindividual score of quality of life is high (or positive), the individual score of perception on assets also high (positive) and otherwise. When checked at the community level (villages), the consistency is still maintained. Figure 19. shows the pattern of agregated scoring of community’s perception on quality of life, which is similar to the pattern of agregated score of community’s perception on assets. These give evidents that the level of well-being is equal to the improvement or decrease of assets (WB= d Assets).

![Graph showing correlation between individual perception on quality of life and assets](image1)

**Figure 9: Patternal corelation between individual perception on quality of life and assets**

![Graph showing correlation between community’s agregated perception on quality of life and assets](image2)

**Figure 10: Patternal correlation between community’s agregated perception on quality of life and assets**
The gradation of perception on well-being among villages is shown in Figure 11. Findings from this survey show that the perception on quality of life is more related to the situational changes that happened, rather than to actual levels of assets and to past experiences. Tempurejo, for instance, which is more urbanized than Prinombo and has high level of infrastructure, but because its community has just experienced economic decrease, their perception of quality of life is the lowest. In contrast, in Pringombo, that is relatively isolated, although some infrastructure and facilities have just developed but are also far below the quantity and quality in Tempurejo, their perception upon well-being is better. These facts provide evidence that perception about well-being is relative and contextual. Table 3.6. gives an explanation about the relation between perceptions on well-being (general quality of life) with changes.

![QoL (Village's average score)](image_url)

Figure 11. Score of community’s perception on quality of life

<table>
<thead>
<tr>
<th>No</th>
<th>Village</th>
<th>QoL (Village's average)</th>
<th>Asset (Village's average)</th>
<th>Significant Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tempurejo</td>
<td>-1.013</td>
<td>-0.334</td>
<td>• Losing Job opportunities due to industrial decline</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Limited opportunities to comeback to agriculture</td>
</tr>
<tr>
<td>2</td>
<td>Pringombo</td>
<td>0.756</td>
<td>0.727</td>
<td>• Filling benefits of new government scheme (funding for elementary school, and public health insurance)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Transports improvement</td>
</tr>
<tr>
<td>3</td>
<td>Sidoagung</td>
<td>0.865</td>
<td>0.554</td>
<td>• Growing urban centre (better access to daily necessities)</td>
</tr>
<tr>
<td>4</td>
<td>Bandongan</td>
<td>1.000</td>
<td>0.640</td>
<td>• Growing urban centre (better access to daily necessities)</td>
</tr>
<tr>
<td>5</td>
<td>Banyuroto</td>
<td>1.330</td>
<td>1.040</td>
<td>• New business opportunities due to the present of tourism sector</td>
</tr>
<tr>
<td>6</td>
<td>Sewukan</td>
<td>1.869</td>
<td>1.181</td>
<td>• Income growth due to modernization, and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• New market facilities</td>
</tr>
</tbody>
</table>

Table 7. the relation between perception on quality of life and changes

The relativeness of the concept of well-being is more apparent when we consider the composition of assets. As shown in Figure 12, the pattern composition of assets is very different. On this basis it can be postulated that well-being is idiosyncratic. Every community needs almost the same level of assets in aggregate, but the composition is contextual of nature.
The uniqueness of perception upon assets is perhaps related to the events occurring in a place, which the stage impressive experiences to the community (see figure 13.).

Figure 12: the Unique Composition of Assets

Figure 13. Maps showing different composition of perception on assets
Concluding remarks

After exploring the way people evaluate their well-being, extracting contributing factors, and empirical testing, the following conclusions can be formulated.

People express their development in well-being by saying that their current quality of life is “better”, “worse”, or “not so much different” compared to their earlier days. These statements are dependent on what kind of and how much assets they have, and how much benefits they may get.

“Benefit” thus is the concept, which people use to indicate assets (material or non-material) or situations (local/surrounding as well as quite far) that determined their quality of life or well-being. People feel the benefits of assets when they can use those as commodities for direct consumption, as raw material/tools/supporting elements (catalyst) used in economic production, or as stock for future security or future investment.

People mention elements considered as assets not only in a material sense, but they also include non-material ones, as long as those generate benefits to achieve certain goals (to fulfill necessitates). Material assets mentioned include money, land, tools and infrastructures. The benefits mentioned are materials for direct consumption, or a raw material/tools/supporting elements used in economic production, or stock to give benefits for future security or future investment. There are two distinctive non-material elements mentioned as assets. Those include conditions attributable to human resources such as health, knowledge and skill, and a variety of circumstances produced by social, cultural, political and public policies. Health, knowledge and skills are considered to be assets. They give abilities to people to use or take benefits of the presence of material assets. While circumstances considered as assets as those possibly support or constraint their effort to take benefit of owning or having access to material assets.

Materials, abilities, and circumstances are assets that give people opportunities to undertake particular activities (consuming or producing). In CA, an activity of using assets (commodities) is seen as functioning. The numbers (level) of possible functionings provided by assets determine the level of capability. Based on these premises, this chapter underpins a fundamental logic of the assets-capabilities relationship.

The “better”, “worse”, or “not so much different” answers documented in this chapter shows that people evaluate the level of well-being in a relative way. They do not measure the level of their well-being based on the actual state of assets, but by comparing the state of them at different time period. Changes, either improvement or reduction are more strongly perceived rather than actual states.

The relativity of people’s evaluation of their well-being also shows that people value assets idiosyncratically. The survey results show that the same assets can mean different things to different people. Personal characteristics such as age, historical experiences, and profession, and particular circumstances surrounding them determine the way people value assets. In some way, these personal characteristics and particular circumstances also influence how people use assets.

Regarding the above findings, this paper highlights basically two fundamental contributions to the development of an evaluation framework. The first basic observation
is that the level of capability equals the available functionings. The latter term represents activities or certain characteristics (e.g. Profession, social or economic status or feelings) that can be linked to a person. This is the core concept to measure well-being. The second basic observation is that functionings can exist only if there are assets, a term to include material (money, goods, infrastructures), or non-material (health, knowledge, skills/abilities, relationships, organization, social environment, political conditions, which person has property right or access rights, and from which assets a person might benefit.

Furthermore, assets are important determining factors for capability, including the commodities identified in this chapter. Commodities include tangible assets that consist of financial and non financial assets, abilities as intangible assets within human resources comprising skills, knowledge and time, and circumstances provided by institutional assets that encompass social values, norms, management, human interaction and organization. All these assets are structured in such a way, that they can be used as a framework to understand the way people evaluate their well-being.

The findings of the case study research as presented in this paper are to be based to develop an alternative framework to evaluate an improvement in a community’s quality of life (well-being). The framework can be used in the practice of regional development and planning, which is contextual to a region’s characteristics and its actual issues. Technically, the proposed framework is a set of procedures designed to be able to measure an improvement/extension of the level of freedom to choose achieved by individuals in, or the community of, a region, through a development process.

The proposed framework will be called “Capability Index” (CI). A higher index implies that a community has experienced a higher improvement on their capability level, i.e. their state of freedom to choose. Because the level of freedom to choose indicates the level of well-being, which includes happiness, a higher CI may also indicate a higher level of happiness.

Basically, the formula of CI is developed on the basic of the way people evaluate the level of their quality of life (which correlates with their happiness) in relation to the condition of available functionings and assets. Based on the entire analysis done in this thesis, following insight are gained.

1. Happiness due to higher quality of life, or the level of well-being is determined by higher level of freedom to choose, or referred to as capability level. Positive changes are more strongly perceived and significantly improve the feeling of happiness
2. The capability level is determined by the variety of possible functionings provided by assets
3. The variety of possible functionings is determined by the level of availability and accessibly of assets, and the level of opportunities or constraint given by them
4. The level of availability and accessibly of assets may be improved or decreased, and so are functionings, which are facilitated or constrained by assets.
5. Functionings, besides as a process of using particular assets, which may be also facilitated or constrained by other assets, is actually also a process of producing and reproducing new additional assets
6. The improvement of capability, which represent quality of life or well-being, is then determined by the reciprocal relationship between a variety of assets and a variety of functionings.

Based on above assumptions, the followings are statements to represent the relationship between capability level, functionings, and assets.

Capability level is equal to the sum of possible functionings
Current capability level = the level of available functionings, which is determined by the degree of opportunities/help/contraints given by the current level of availability and accessibility of assets.

References:


