

EXTENSION OF HUMAN DEVELOPMENT IN THE REGENCY OF JEMBER - INDONESIA

Application of Hierarchy Analytic Process in Quick Scan Analysis

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I. Introduction

The economic development in all dimensions is always intended to increasing the entire social welfare. With regards to its particular meaning, the economic development can be said as an attempt to increase income per capita and productivity per capita by bringing up the capital tools and the society craftsmanship (Djojohadikusumo, 1955; 1994). In this process, the availability of natural resources must be supported by the availability of qualified human resources, so that the remarkable economic progress could be eventuated. Due to the importance and dominance of human being in the economic development, it is a must to involve human development in the holistic process of a country development. Hence, with the maximum capacity of human development, it is hoped that the economic growth would be consequently eventuated.

The human development in a certain country is calculated using *Human Development Index* (HDI), a composition index which is based on three indicators: the long-age measured by life expectancy; the education level of society, and the life standard measured by per capita GDP real in Dollar value (Tambunan, 2001). The value of *Human Development Index*, despite its simple nature, can represent the range of progress in human quality development in the process of economic development.

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Based on Indonesian *Human Development Report* (IHDR)¹ reported by *United Nation of Development Program* (UNDP) the human development in Indonesia underwent a rapid progress in various aspects of human development in the period of 1960s to the first half of 1990s (UNDP, 2002). However, the condition has altered as Indonesia underwent economic crisis in the late 1990s including East Java Province. The index value of East Java was 61.8 which is on position 22 from 26 provinces in Indonesia. The index indicates a risky phenomenon, in view of the fact that East Java due to the fact that East Java has abundant natural resources properties, endowment highly populated society and many industrial sectors.

The Jember Regency as a regency in the province of East Java has a quite interesting index characteristic in the human development. UNDP reports that Jember Regency only possesses 54.9 index and ranked 276 from 294 regencies in Indonesia, notwithstanding the fact that Jember has a lot of natural resources particularly agricultural products in view of its capability and economic performance. This is the underlying ground of Jember Regency as an object of case study on the performance and extension of *Human Development* in East Java. The acquired index cannot be separated from the government role as a social-formal institution providing and supervising public services which must be competent in the attempt of increasing social welfare.

II. Problem to be Discussed

The Human development is a process to increase the quality of human life as a means to increase the capability of local economy in facing the development alongwith its concomitant globalization. That is why, the human development must be given a special priority by the government, so that it can create the non-physical capital as a supporting factor to the physical capital at present or in the future. The index measured is consequently becoming very complex. *Human Development* as a public issue must be deeply and entirely accommodated. Furthermore, based on the accurate information, we can figure out what kind of policy that has to be can be

¹ IHDR (*Indonesian Human Development Report*) is a report released by the representative of UNDP (*United Nation of Development Program*) in Indonesia as a part of UNDP's *Human Development Report* (HDR). In this case, UNDP released HDR as a report and classification on the condition achieved by overall countries in the world.

really given priority by the authority of Jember Regency, in view of the problem complexity and limited endowment.

III. The discussion has two objectives:

1. To figure out the entire information and problem identification on *Human Development* in Jember Regency.
2. To figure out the direction of policy priorities concerning human development in Jember Regency.

IV. The Methodology of Research

IV.1 Quick Scan Analysis

Human Development as a supporting aspect in development becomes very complex due to its central position in the development process. *Quick Scan Analysis* (QSA) as a methodology with its main key is in the accumulation of public information becomes an appropriate method in the policy preparation phase. QSA is expected to contribute deep and entire comprehension towards the aspects and problems to be examined. That is why, it is also able to increase the quality of the determined policies.

In the early stage, the approach gives definition to all of the subtle problems, then minimalizes the uncertainty for all engaged elements that also capture its impacts. The method endorses active and dynamic participation from all stakeholders in the entire research process.

The problem complexity faced by QSA comprises the problems of abundant number of doers who share different aim and interest, in which they tend to contradict one another. Due to this, Enserink (2000) states that QSA in its process must possess the following criteria: (1) the interaction among all *stakeholders*; (2) precise information; (3) active participation of the entire *stakeholders*; and (4) the iteration or continuous process of the problem defining and redefining.

The participation of the entire doers in the problems examined, as a matter of fact, weakens QSA in maintaining its consistency and data objectivity. This is

subject to the numerous doers or *stakeholders* who share different views and aims. This makes the problem formulation more difficult and complex.

IV.2 Analytic Hierarchy Process

The method was initially found by Prof. Thomas L. Saaty, who was able to reduce the perception of experts in handling a problem to achieve a fine decision with a hierarchy as the main tool. By the use of hierarchy, an unstructured and complex problem is decomposed, classified, and arranged in a systematic and appropriate hierarchycal form.

The problem decomposition comprises factors in one hierarchy or more. The factors classified in the same hierarchy are compared with a certain quality as a pairwise comparison so it could give contribution to the factors classified in the foregoing hierarchy. The next step is to calculate the priority quality through normalisation and average calculation. This is followed by the calculation of consistency toward its estimation. AHP conditions that index consistency should not be more than 10 percent.

AHP is a theory of measurement, which is used to find out ratio scale from the discretepair or the continuous one. The comparisons can be obtained from the actual size or basic scale which represents relative preference or outlook intensity. The comparison in AHP is made by the use of ratio scale. The decision making is supposed to be done by using limited scale, namely from scale 1 as the lowest, which is equally preferred or indifferent up to the highest scale, namely scale 9, which is extremely preferred.

IV.3 The Contribution of AHP in QSA

In Soetanto (2002) paper at the INSAHP 2002, he was stated that AHP can be directly or indirectly applied. Indirectly, the researcher can make a simulation on the problem by giving issue to the public so that the definition of the problem, although not entirely, can be obtained from the very beginning. This method will generate efficiency and effectiveness in terms of time and energy as well.

The direct application of AHP may involve many people in decision making. AHP also functions as a Group Decision Making, that is why it is very appropriate

in the decision making of public policy. The planning process using AHP can be in the form of forward and backward process.

The AHP method used in this research is merely in backward process due to the limited time, energy, and expense. The phases in QSA is based on the problem formulation using the defining tool by the *stakeholders*. The following figure shows *Quick Scan Analysis* model.

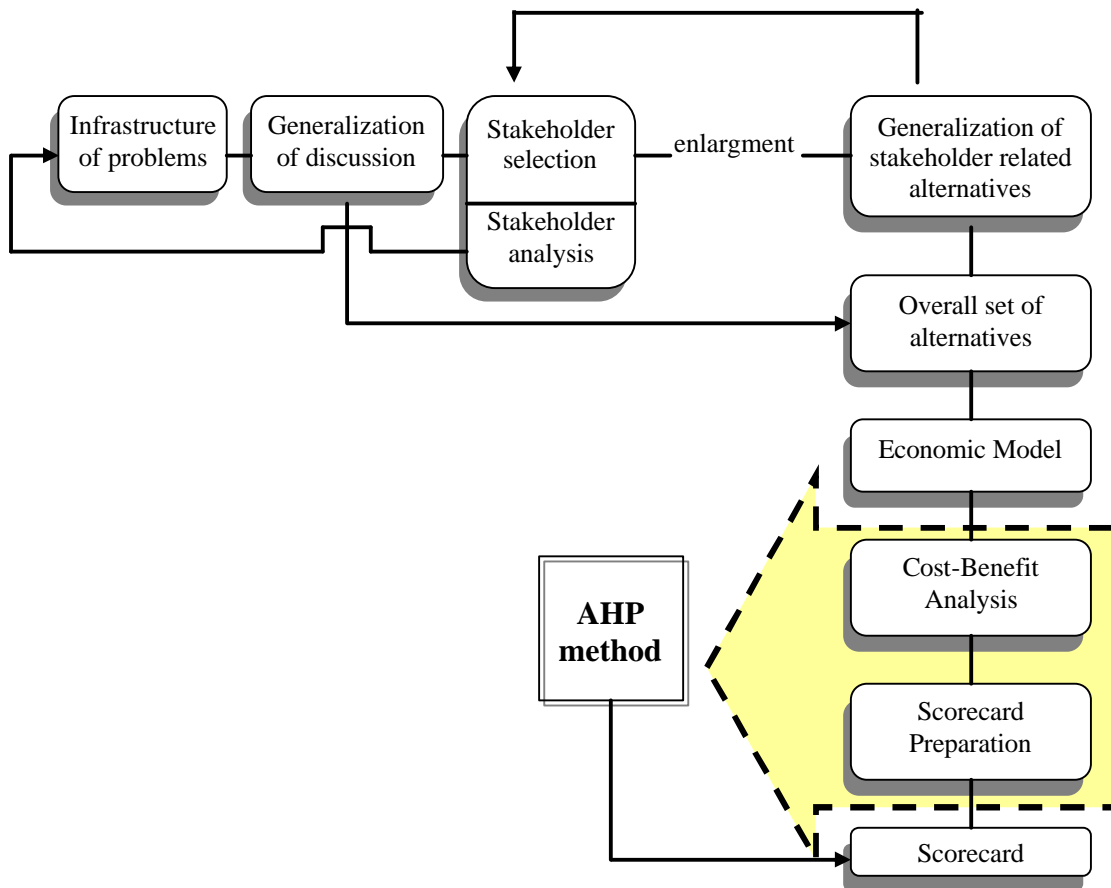


Fig 1. The contribution of AHP in Quick Scan Analysis model.

IV.4 The Procedure of Data Accumulation

The data used in the research undergo the following process:

1. Quick Scan Analysis data could be obtained from interview, interactive discussion on the radio, seminar, and library research.
2. AHP data can be obtained from questionnaire distribution to by involving respondents who have expertise as well as influence in the public policy decision making of human development in Jember Regency. The questionnaire is distributed to some elements. The first comprises four government officials of

Jember Regency who are expert in the field of human development and possess authority in determining the government policy in Jember. The second part comprises several authorities associated in the three commissions of Jember Regency.

3. The secondary data can be obtained through library research on newspapers, journals, papers, supporting references, and internet surfing, in the hope that scientific conclusion based on a firm theory can be obtained.

IV.5 The Application of AHP in Research

IV.5.1 Model Formulation of AHP and Hierarchy

The AHP model does not condition a strict consistency, however, it is necessary to re-examine whether the inconsistency lays in the *local priority*, so that the global priority still has minimum consistency or inconsistency. Nevertheless, it is necessary to maintain the low inconsistency of global priority. Principally, there is no basic rule to make a certain hierarchy, since it all depends on one's experience and knowledge. As a matter of fact, it is necessary that the hierarchy is complex enough to capture any situation, and is as few as possible to be sensitive towards changes (Mulyono, 1988). According to Saaty (1991:30) there are two kinds of hierarchy, namely structural and functional hierarchy.

Based on the data obtained in the QSA process about the problems to be examined, it is possible to arrange a fine hierarchy. Based on several data, general description and condition of human development in Jember Regency, the writers try to use incomplete hierarchy to find out alternatives of development policy in the hope that it can support the increase of Human Development in Jember Regency, as shown in figure 2. The hierarchy which can represent the mentioned goal is illustrated in the following fig.2:

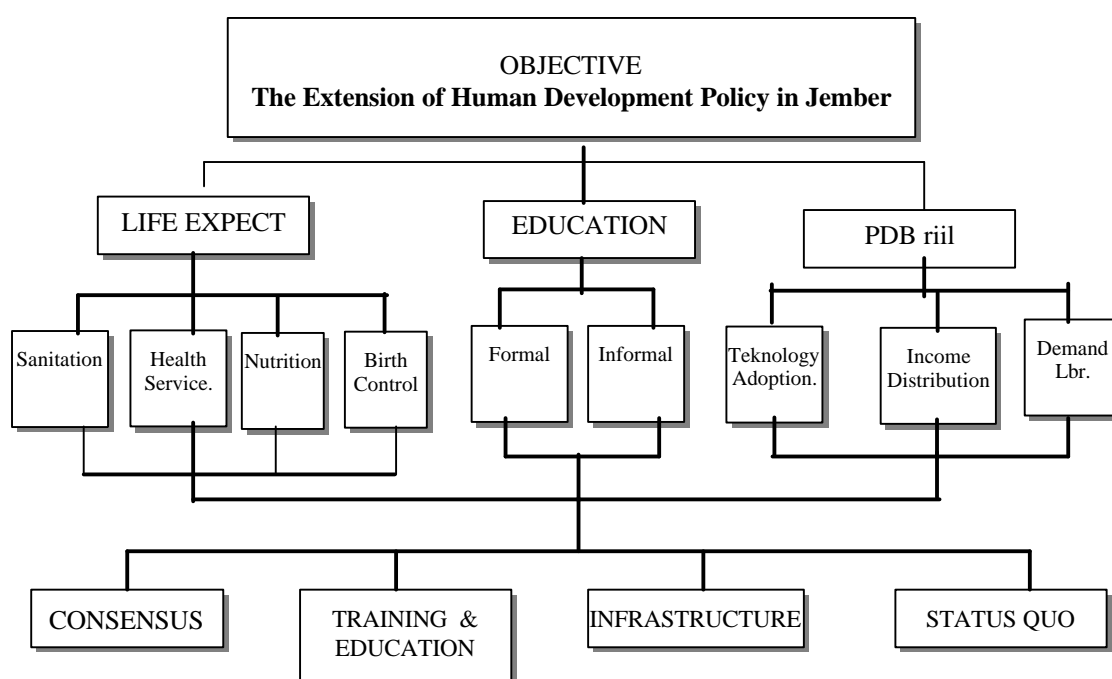


Fig 2 : The Extension of Human Development Policy Jember Regency.

Source: Azis (1992), processed.

Information on the diagram:

Hierarchy Level 1 :

Human development indicator :

1. LIFE EXPECT : Human life expectation.
2. EDUCATION : the final education level of adult people on average.
3. PDB_{riil} : real income per capita level.

Hierarchy Level 2 :

The factors with influence on the human development indicators:

- Sanitation : access to the sanitation.
- Health Service : access to health service for society.
- Nutrition : access to nutrition for babies and toddlers.
- Birth Control : family planning on birth.
- Formal : people formal education.
- Informal : people informal education..
- Technology Adoption : people's capability in adopting technology.
- Income Distribution : income distribution in market system.
- Demand Lbr. : the labour demand in building new jobfield.

Hierarchy Level 3:

The alternatives of development policy program for the importance of developing human development in East Java:

CONSENSUS	:	the consensus policy involving all elements on the importance of human development by determining national quality standard.
TRAINING & EDUCATION:		the policy of training and education for Jember society.
INFRASTRUCTURE	:	the policy of infrastructure investment in the field of education, health, information and transportation in Jember.
STATUS QUO	:	the recent condition does not require any alteration.

V Data Analysed and Discussed

V.1 The Identification on the Problem of Human Development in Jember Regency.

The performance of Human Development in Jember Regency indicated a worsening condition. This is subject to its index value of 54.9 and its position of 33 from 37 regencies in East Java. Furthermore, in the national scope, it fills the position of 276 from 294 regencies (classified as low category as it is below the index of 60). Based on the activity of data survey, field examination, interview, seminar and interactive dialogues, the condition is caused by low awareness of the society's towards the importance of Human Capital as a long-term investment.

The average participation of people at schools is about 88,5% at the age of 7-12 years; 57.5% at the age of 13-15 years; 31.3% at the age of 16-18 years; and 4.9% at the age of 19-24 years. On the other hand, the average of *drop out* rate is 7.9% at the age of 7-15 years; 18.2% at the age of 16-18 years; and 26.5% at the age of 19-24 years. The minimum education facility is also a determining factor in the low value of Human Development Index (HDI) in Jember Regency. The most remarkable factor of the insufficiency of government's concern toward education is the high ratio number between teachers and students. This is based on the fact that the number of state secondary schools in Jember is 59 with 1.753 teachers and 33.576 students. The number of private secondary schools is 77 with 1,232 teachers and 12.672 students. Furthermore, there are 16 state High Schools in Jember with 624 teachers and 3.730 students. The number of private High Schools is 30 with teachers and 7.169 students.

The economic aspect also requires further development. The most remarkable factor is the low income distribution particularly for lower economic class society.

Furthermore, the population growth play its role in increasing interdependency ratio at the level of labour participation.

The problem prevailed in the field of health as an obstacle in the success of Human Development in Jember is the limited availability of health facilities particularly for the lower economic class society. Aside of this, the awareness of people on the importance of health and nutrition for babies and toddlers requires more enforcement.

V.2 The Calculation on Human Development Policy in Jember Regency

The respondent of Human development policy merely comprises the *stakeholders* in Jember Regency who possess influence authority in the government policy decision making, namely the local government and the local representatives of Jember Regency (DPRD). The number of questionnaires distributed is 10 with 4 questionnaire can be withdrawn. For the local representative (DPRD), the data are obtained by inviting stakeholders in the commission meeting to discuss about the questionnaires. The result from the meeting is as follows:

Based on the recapitulation and quality estimation on the *stakeholder's* opinions, it can be figured out the synthesis of each alternative priority towards the goal. The estimation can be done by adding each alternative of the sub-criteria elements. The result can be seen in table 1 below:

Table 1: The alternative priority of human development policy in Jember Regency

Factor \ Alternative	Sanitation	Health Service	Nutrition Access	Birth control	Formal	Informal	Technology Adoption	Income Distribution	Labour Demand	Average
Consensus	0.20	0.13	0.45	0.50	0.18	0.19	0.11	0.40	0.20	0.26
Education & Training	0.14	0.30	0.25	0.30	0.18	0.40	0.49	0.35	0.32	0.30
Physical Infrastructure	0.59	0.49	0.22	0.14	0.57	0.34	0.34	0.19	0.42	0.37
Status Quo	0.06	0.08	0.06	0.06	0.05	0.07	0.05	0.05	0.06	0.06

Source: Questionary result

With reference to table 1 above, the alternative priority can be elaborated as follows:

1. Priority I : the building of physical infrastructure investment, which can support human development with the percentage of 37%.

2. Priority II : the policy of education and training for the entire society to support the increase of human capital quality with the percentage of 30%.
3. Priority III : overall consensus policy to support the building of fine human development with the percentage of 26%.
4. Priority IV : the policy of status Quo with the percentage of 6%.

VI. Conclusion

The identification of condition and problems prevailed in Jember Regency particularly the ones concerning with Human Development is crucially urgent to be integrated in the local regional development policy. This is due to the fact that Human Development Return of Investment will merely be relished in the long terms. That is why it is necessary to make appropriate policy priority with regards to the limited endowment as well as resources.

Based on the problem urgency and limited resources, the local government of Jember Regency may take the possible policy priorities as follows:

- a. The alternative on physical infrastructure investment for 37%.
- b. The alternative on education and training policy for Jember people for 30%.
- c. The alternative on overall consensus policy for 26%.
- d. The alternative on Status Quo Policy for 6%.

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