

Equity Issues in Benefits Distribution: The Case of Kreo Cave Tourism in Semarang, Indonesia

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Abstract

Tourism development can bring benefits to local people. The Kreo Cave tourism in Kandri Village of Semarang City, which is attracting increased interest due to the operation of the recently-built Jatibarang Reservoir, is also expected to benefit the residents significantly. Thus, this study aims to answer the question "How is the distribution of the benefits of Kreo Cave tourism development aligned for the local people?". Referring to the concept of Equity-Based Development, the focus is twofold. The first is on what aspects the local community can benefit from Kreo Cave tourism, and the second is on how well equity is applied to the benefit distribution. The results show that equity failures in seven aspects of the benefit distribution are at the low to moderate levels. On average, only moderate inequity is perceived by the local people. The City Government facilitation in developing the tourism village of Kampong Talun Kacang may have something to do with this outcome. However, Talun Kacang is only a part of Kandri nearest to Kreo Cave, and people in the more distant parts of the village may perceive it differently. That is why, the equity failure in job opportunity is surprisingly severe although the trend in the last five years is a bit improving. This aspect should be given serious attention by the city government. An important measure is that the community empowerment program should be improved to encompass villagers who live distant from the Kreo Cave and Jatibarang Reservoir.

Keywords: benefits distribution, equity-based development, local people, sustainable development, tourism development

1. Introduction

1.1 Background and Problem

Indonesia is among a number of countries having great potential in the tourism sector. Many tourist destinations with diverse attractions are found in Indonesia. Bali Island, for example, is well known as one of the world's major tourist destinations. Although Bali is not included at the top 50 tourist destinations in the world (Note 1), with tourist arrivals constantly increasing, it holds major potential for Indonesian tourism. Comparing Bali with, for example, the Taj Mahal in India that is ranked 50th in the world with around seven million annual tourists visit, the number of foreign tourists visiting Bali, over three million tourists per year since 2013 (Note 2), gives great hope that in the future Bali may come in the top 50.

The contribution of the tourism sector in the Indonesian economy is also significant and continues to increase from year to year. In 2013, when Indonesian exports declined, tourism still increased its contribution from 10% to 17% of Indonesia's total (Note 3). With such good potential and trends, no wonder that the tourism sector is expected to play a major role in improving the welfare of all Indonesian people. A similar case is also expected with Kreo Cave tourist destination for its surrounding people in Semarang City, Central Java.

Located in Kandri Village, in the District (*Kecamatan*) of Gunungpati, Semarang City, Kreo Cave can be regarded as not only cultural tourism because of its historical value, but also as eco-tourism because of its relatively unspoiled natural environment. Its historical value is derived from one of the nine Islamic preachers, namely Sunan Kalijaga, who meditated in the cave. Meanwhile, the natural beauty derives from many monkeys that supposedly are descendants of the four monkeys which had helped Sunan Kalijaga. Figure 1 shows the Kreo Cave and some monkeys which live freely in the environment.



Figure 1. Kreo cave and the environment

Source: www.seputarsemarang.com

The attraction of Kreo Cave is now fortified by the existence of Jatibarang Reservoir stemming the Kreo River in the area. It was inaugurated in May 2014. Although the main functions of this reservoir are to help solving the problem of flooding in Semarang City and as an additional source of clean water for the city, tourism is a following-up function that is developing as well. Kreo Cave tourism, thus, has the potential to improve the economy of Semarang in general and the welfare of Kandri's local community in particular.

Prospects for a positive distribution of benefits can be seen in the area. Kandri villagers who live in Kampong Talun Kacang, the nearest to the cave and the reservoir, have started developing related business activities such as renting rooms known as homestay accommodation for the tourists. There has also been a community empowerment program as part of the Kreo Cave tourism development. It has helped to initiate two community groups that are concerned with tourism development called Pokdarwis (an acronym of *Kelompok Sadar Wisata*, which means Tourism Concerned Group). The groups facilitate creative economic activities that have been developing as seen in Figure 2. Since an equitable distribution of development benefits is one of the prerequisites to ensure sustainable development according to the model of Equity-Based Development (EBD) (Sugiri, 2009), it is thus essential to examine this function in Kandri Village.



Figure 2. Creative economic activities in Kampong Talun Kacang, Kandri

Source: Field observation, 2015

1.2 Importance of the Research

This study aims to answer the question "How is the distribution of benefits of Kreo Cave tourism development aligned for the local people?". The word 'how' here, of course, refers to the concept of EBD. The focus is twofold, i.e., on what aspects the local community can gain benefits from Kreo Crave tourism development and how well equity is applied to the distribution of these benefits.

A complete answer can be achieved through the following objectives: (1) Outlining the aspects of the functioning of the benefit distribution according to the concept of EBD; (2) Measuring the equity failures perceived by the local people in these aspects; (3) Identifying dynamic forces in the application of equity in the benefit distribution perceived by the local people; (4) Proposing measures necessary for more equitable development of Kreo Cave tourism.

Thus, this research can provide significant advances. The first is for urban and regional development practices; this study can be seen as a pilot one. Research on the topic of equity-based tourism development has rarely been

conducted in Indonesia and is still rare in other countries. If the recommendations of the study are carried out by the related parties, the Semarang city development can be more equitable, which means that the worse-off people can enjoy the benefits of urban development appropriately.

The second is for theoretical enrichment of the related sciences. This study will progress the EBD concept, a model of sustainable development originating from Indonesia, which still requires improvement through operational applications in the fields.

2. Tourism Development in the Framework of Equity-based Development: A Literature Review

In developing countries, the tourism sector is often considered capable of prospering local communities. In many cases, the benefits of tourism development can be enjoyed by the whole society, so much so that the World Tourism Organization (WTO) has suggested making tourism a leading sector for the achievement of the Millennium Development Goals (MDGs) in developing countries (Buzinde et al., 2014). Its potential stands in contrast with, for example, that of the mining sector, the benefit distribution of which is often unequal resulting in some kind of deprivation for local communities (see e.g. Sugiri and Adiputra, 2011; Okonta and Douglas, 2003).

2.1 Tourism Development and the Benefits for Local People

There are many aspects of tourism development that can involve local people. Starting with the construction of infrastructure and supporting facilities, such as roads, bridges, terminals, hotels and restaurants, to various types of creative, household-based, industries. Local communities can thus benefit from the development of tourism to improve their quality of life.

Pieces of evidence are there. In Indonesia, the provinces of Bali and Yogyakarta and the surrounding regions are two quite striking examples. The economy of both regions depends on tourism, especially Bali which relies on it for about 80% of its gross regional product (Cole, 2012). In both regions, the benefits of tourism development can be enjoyed properly by local communities. So, it is not just a small group of big investors who benefit, but also a large group of local people who mostly have low capital and skills. The regions of Lake Toba in North Sumatra and Bunaken in North Sulawesi are two other significant examples. However, this is certainly not intended to ignore the negative impacts of the sector, such as the clean water crisis that has been apparent in Bali (Cole, 2012).

Recent studies also show that tourism is a prospective sector for a more equitable distribution of benefits. Kim et al. (2013), for example, have studied how tourism can affect the quality of life in Virginia, USA. They tested a model that links the public perception of the impact of tourism with the public satisfaction (in terms of material well-being, social, emotional, health and safety, and in terms of overall satisfaction). The results can be said to be supportive. That is, people feel that the various aspects of their well-being are affected by the impacts of tourism development. They feel that a positive impact will improve their well-being and vice versa.

Meanwhile, using the case of two rural communities in Maasai, Tanzania, Buzinde et al. (2014) posted some interesting findings. Universal measures of well-being, such as the MDGs, turned out to be less appropriate to determine the impact of tourism in improving the welfare of the society. However, from indigenous or local perceptions, it is known that tourism can generate positive and negative impacts on the welfare of the community. Local people support wildlife conservation efforts as a tourist attraction, and in turn will improve the economic welfare of the society itself. However, the calculation of this benefit might be excessive because conservation brought negative impact as well, i.e. the increasing numbers of livestock preyed upon by the wild predators. Thus, an indigenous approach to measure welfare is required in this case.

Convincingly, Fun et al. (2014) provide evidence that the benefit distribution function of tourism can be positive. Using the case of Sarawak, Malaysia, the researchers have discovered the existence of one important condition, namely, the quality of community engagement. Thus, if relationships in the affected communities are progressing well and involvement in tourism activities is also good, this, in general, will result in an equitable benefits distribution for improving the welfare of local communities.

Otherwise, bottom-up but unplanned approaches to tourism can create the significant social cost as in the case of Gili Trawangan in Lombok, Indonesia (Hampton and Jeyacheya, 2015). The cost comes in terms of fragmented local people, and often ends up in local conflict and social pressure. Surprisingly, in this case, it was the relationship among the power entities which made the community isolated from the decision-making process. It is apparent that the important condition of involvement found in the Sarawak case is missing in the Gili Trawangan case.

Fortunately, this is not so in another tourist destination in Indonesia, i.e. Kampong Kemasan of Gresik in East

Java Province (Rahmawati et al., 2014). Heritage and religious tourism has been proven able to assist the economic resilience of the area. Good social capital and local community commitment similar to that found by Fun et al. (2014) are the main factors in the positive benefit distribution.

Investigating the Kampong Ayer cultural heritage tourism in Brunei Darussalam, Ahmad (2013) found out that the potential of benefits for local people has been challenged by problems like waste disposal, fire disasters, crime, lack of information for the locals, and lack of tourist facilities and services. To overcome the problems, Ahmad proposes that proper facilitation is needed to encourage local people to participate in the tourism industry. This way, significant benefits can be distributed well to the local people.

Significant benefits for local people are also evident in Wasini Island, Kenya, with its nature-based tourism that has significantly contributed to poverty alleviation and rural development (Job and Paesler, 2013). The researchers investigated two island settlements of the Mkwiro and Wasini villages near the Kisite Marine National Park. Two contrasts were found. Wasini people enjoyed many more benefits than those of Mkwiro. The key is unsurprisingly similar to that found by Fun et al. (2014) with the Sarawak case. Job and Paesler (2013: 18) have argued that "...tourism per se does not necessarily contribute to poverty-reduction; it is the tourist businesses' ties with the local economy that matter".

By and large, local people empowerment resulting from tourism development can be considered the key. Boley and McGehee (2014) have measured this aspect in western Virginia tourism using the Resident Empowerment through Tourism Scale (RETS). Three kinds of empowerment are evident. The first is psychological empowerment in terms of the proudness of the local people for tourism within their community. The second is social empowerment that makes for good interaction amongst the local people, and adds to their appeal to tourists. The third type is political empowerment, through which they can share their voice and concern about tourism.

After learning of the success of tourism development in various parts of the world, said to be the main engine of economic growth and poverty reduction (Fun et al., 2014), it is necessary to review the concept of Equity-Based Development.

2.2 Equity-Based Development: Ensuring Equity in Four Functions

In line with the definition of sustainable development by the WCED (1987), sustainable regional development is development at the regional level that is capable of guaranteeing equity within and between generations without reducing the ability of the related other regions to do the same (Sugiri, 2009; Sugiri et al., 2011). The concept of Equity-Based Development (EBD) by Sugiri (2009) can address the challenge of sustainability. This model involves four functions, in which the application of equity should be ensured, namely that of the benefit distribution (I), the production function (II), the non-production function (III; such as ecological, conservation, and buffering), and reinvestment for sustainability (IV). The principle that equity has to be assured in the four domains of development follows the current relevant literature (Ituarte-Lima et al., 2014; McDermott et al., 2013). McDermott et al. (2013), for example, have classified justice into distributive justice, procedural and contextual justice, all of which are included in the model of EBD. Figure 3 shows the model in the inter-regional context (Equity-Based Regional Development).

The role of natural resources is very important, especially concerning the need to preserve the environment and to ensure sustainable development. Some aspects of the role of natural resources can be replaced by physical capital, but this only concerns the production function. Natural resources are used in the production function as input materials and energy. Results of this function are development benefits that are recorded in the economic statistical reports, for example, as the gross domestic product (GDP). Also, natural resources are required for the non-production function or the function of environmental sustainability. These non-production benefits, such as retaining the assimilative capacity of the environment, biodiversity, a comfortable microclimate, and preventing global warming, are very important although they are not recorded in the economic data.

However, the non-production function should be supported by function IV, i.e. reinvestment for sustainability. If function IV goes well, the authority of the city, region or country will have enough funds to repair damage to the environment and restore carrying capacity, because part of the development benefits, especially from the production function, will be re-invested for sustainability purposes. The idea of the carbon market to deal with climate change mitigation, for example, is consistent and falls within the framework of this fourth function. Thus, the mechanism shown in Figure 3 can assure sustainable development.

For this study, the function of the benefit distribution is the focus.

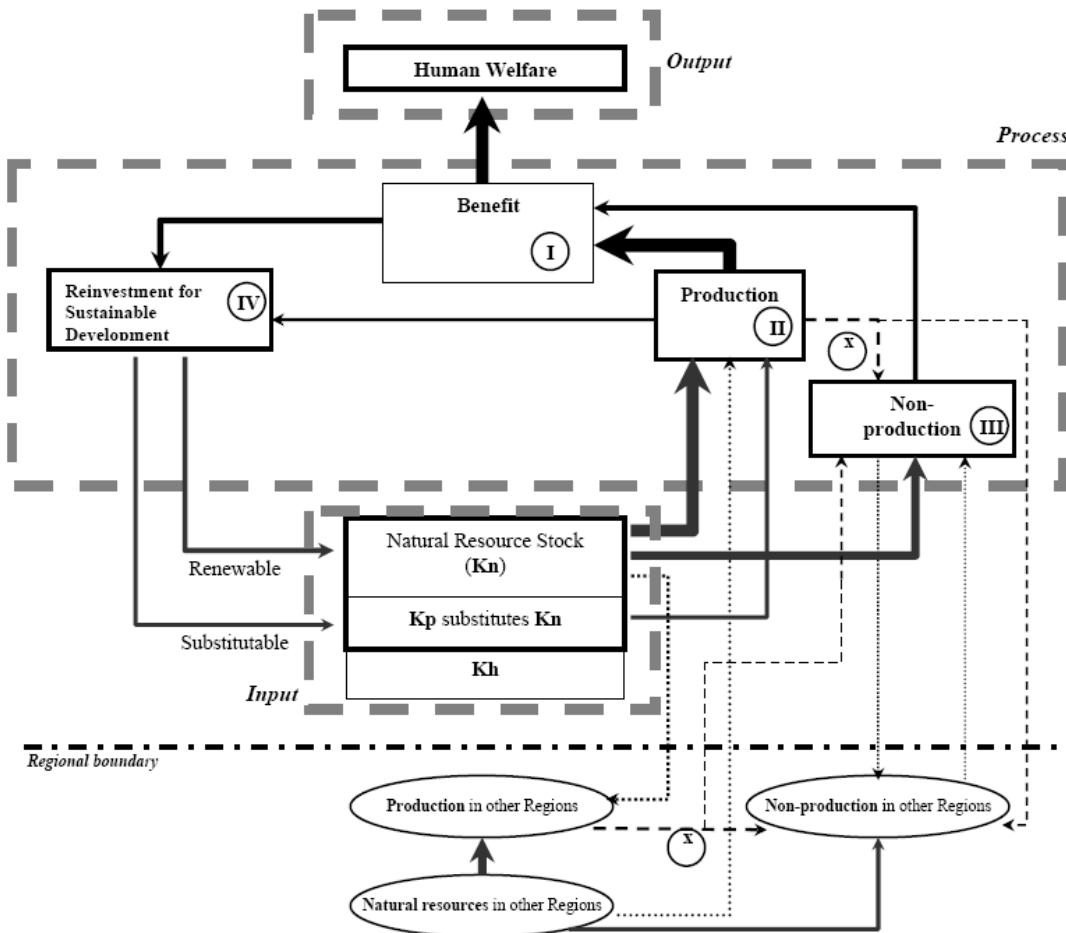


Figure 3. Inter-regional model of equity-based development

Source: Sugiri, 2009:117.

Note:

- I : Equity I
- II : Equity II
- III : Equity III
- IV : Equity IV

All arrows represent positive flows, except the 'x' arrow which is negative externality, i.e. the negative impact of the production function to the non-production function, however, it is hardly captured by the market mechanism (the market failure).

Some equity failures in the production function may also be relevant to tourism because a failure to guarantee equity in this function (Equity II) would cause deep inequality and unsustainability. However, for this research, focusing on investigating equity failures in the benefit distribution is sufficient. Besides, Equity Ia also encompasses the aspect of job creation, as will become clear later on, which should be comprehended first before stepping further into investigating the production function (Figure 3).

2.3 The Importance of Equity in the Benefit Distribution Function (Equity I)

Development benefits resulting from the production and non-production functions are distributed to the people through a socio-economic mechanism. The principle of equity should be applied to the mechanism of the benefit distribution. It is henceforth referred to as Equity I. If public policy fails to achieve Equity I, the implications would be:

- Equity failure Ia, i.e. poverty and deep economic inequality, because the majority of the people are

benefiting less than they should be (a worse-off majority). Such occurs when their level of welfare remains low despite their hard work.

- Equity failure Ib, i.e. when access to public services and facilities cannot be allocated equitably. The worse-off people are often hard to service even at basic levels, such as clean water, waste disposal, primary and secondary education, and health care, either because of the unaffordability, or the distance barrier, or other causes.

2.4 Benefits Distribution Function in Tourism Development

Various studies on tourism development discussed previously, from the island of Bali in Indonesia (Cole, 2012), the Maasai region in Tanzania (Buzinde et al., 2014), Virginia in the United States (Kim et al., 2013; Boley and McGehee, 2014), to Sarawak in Malaysia (Fun et al., 2014) and Wasini Island in Kenya (Job and Paesler, 2013), aver that the tourism sector can generate a positive distribution of benefits. Referring to the concept of EBD, such an outcome is characterized by low levels of equity failures Ia and Ib. For example, deep inequality or dire poverty is not apparent in the province of Bali. Public facilities and services can be accessed well by the entire society, even in districts or regencies that are considered backward in the economy such as Jembrana (Note 4).

The cases of Virginia, Maasai, Sarawak and Wasini might not be comparable to that of Bali because tourism is not the largest contributor to the economy of those regions. However, the studies conclude that the distribution of benefits from tourism can be enjoyed down to the lower levels of the communities. So presumably, the level of equity failures Ia and Ib, if any, are only at the low level.

Therefore, it is interesting to examine aspects of the benefit distribution of a tourism development, the potential of which has long been there but it has not yet reached a level of maturity (Note 5). For the Kreo Cave tourism in Semarang, attraction is increasing along with the operation of the Jatibarang Reservoir.

2.5 The Research Proposition

The proposition of this study, based on the literature review above, is that the distribution of benefits of tourism development on the local people of Kreo Cave can be accomplished through, most importantly, minimizing the equity failures Ia and Ib. If the overall failure is at a low level, then the benefit distribution can be considered good.

Equity failures Ia and Ib can be approached through an understanding of local perceptions of eight policy aspects, as Sugiri (2009) has asserted. However, preliminary observation has found that shelter has never been an issue for the local people. No slums or shanty areas are found in Kandri. So, it is not necessary to investigate this aspect.

For Equity Ia (the system of income and employment), the aspects are:

- Job opportunity;
- Taxation;
- Minimum wage;
- Social security.

For Equity Ib (access to facilities and services), the policy aspects are:

- Education services;
- Health services;
- Basic infrastructure (road, electricity, clean water, drainage, telecommunication).

This proposition was confirmed in the field, i.e. Kandri Village. The results discussed later in this paper offer a complete answer to the research question.

3. Methods

As can be seen from its inquiry, the study is based on the philosophy of social constructivism, which is concerned much about the local people perception and preferences related to the research topic. A study that is based on social constructivism would usually use a qualitative approach. However, this one uses a quantitative approach (Note 6) because it is more focused on applying a concept, namely EBD, and testing a common view that the tourism sector is supportive in the benefit distribution function. Besides, as far as the semiotic mechanism (see e.g. Schönwandt, 2008) is concerned, knowledge is gained through a socially constructive process, no matter whether the approach is qualitative or quantitative.

3.1 Stages of the Research

Four stages have characterized this research. First, preparations were made, comprising a literature review and the research design. Having the research design in hand, it was possible to begin observation and collecting data from the field. The third stage involved compiling, systematizing, and analyzing the data and information. Finally, the fourth stage was to discuss findings, to conclude and to provide relevant recommendations based on the findings.

The most important aspect is the local people's perception of the equity issues. When equity is not applied properly, some people will simply be better-off at the expense of others who are worse-off.

3.2 Sampling the Local People

The sampling method chosen is random sampling. Given the characteristics of the population, the 'local' people are those who have lived more than five years in Kandri Village. The unit of the respondents is the household (HH), because the aspirations of a family in Indonesia are generally represented by the head of the family.

Solvin's formulae (see e.g. Bungin, 2010) is used to identify the sample size:

$$n = \frac{N}{(1 + Nd^2)}$$

Notes: n = sample size; N = population size; d = degree of error

Applying an 85% of confidence level, with N = 665 HHs and d = 0.15, the sample size is 41.66, rounded to 42 households in Kandri Village. The 85%, and not higher, confidence level was chosen due to limitations of funding and time available for the research.

The questionnaire contains items with two characteristics. The first type is the closed question. It constitutes the biggest part of the questionnaire, intended to determine public perceptions of the application of equity Ia and Ib in the benefit distribution of Kreo Cave tourism development, and to determine trends in the last five years. The closed-ended questions involve seven policy aspects mentioned in the research proposition. The level of perceived equity in every aspect uses a Likert scale, namely: one for the worst, two for bad, three for moderate, four for equitable enough, and five for the most equitable.

The second type is semi-open to open questions around preferences. Respondents were given multiple choice answers plus one option that is semi-open to open; for example, a question to identify which factor has been the most influential in providing jobs. Also, the question on factors determining the level of difficulty in getting access to certain facility or service.

The method of analysis has employed simple calculation of the respondent's answers to the questions covered. As for the semi-open to open questions, a social constructivist philosophy was applied, i.e. although the proportions of opinions are calculated, the minority aspirations still have to be considered and should not be omitted.

4. Results and Discussion

As defined in the proposition, seven policy aspects most related to the benefit distribution function were investigated. The results are shown in Table 1.

Table 1. Equity failures in Kandri Village

<i>Equity Issue</i>	<i>Policy Aspect</i>	<i>Existing Situation (Inequity level)</i>	<i>Trend of the last five years</i>	<i>Priority Level</i>
Ia Existing overall score: 6.48 (moderate)	Job Opportunity	severe (4.81)	not bad (3.14)	1
	Taxation	low (7.76)	fair (8.05)	5
	Minimum Wage	moderate (5.76)	fair (5.62)	4
	Social Security	low (7.60)	not bad (5.91)	7
Ib Existing overall score: 6.27 (moderate)	Education Services	moderate (5.10)	fair (5.05)	3
	Health Services	low (7.76)	fair (7.29)	6
	Basic Infrastructure	moderate (5.95)	fair (6.43)	2

Note: The score is on the scale of 0 – 10; Referring to Sugiri and Nuraini (2013), the classification is: Severe: <= 5.00; Moderate: 5.01 – 6.99; Low: 7.00 – 9.99; For the trend, not good ($d \leq -0.50$); fair ($-0.50 < d < 0.50$); not bad ($2.00 \geq d \geq 0.50$); good ($d > 2.00$), where d is the increase or decline during the last five years.

Source: Questionnaire results, 2015.

It is unfortunate to see that equity failures have occurred concerning issue Ia (the employment system) and Ib (access to services and infrastructure) although only at the moderate level. Meanwhile, the trends of the last five years are mostly 'fair' with only two aspects rated 'not bad', i.e. job opportunity and social security.

A. Job Opportunity

It is surprising that equity failure in job opportunity is considered severe. However, the trend in the last five years is as expected, i.e. not bad. The most important factor influencing job expansion is the Kreo Cave tourism, along with the recently operated Jatibarang Reservoir, as perceived by 81% of the respondents. The trend could mean that job opportunity is increasing significantly but is inequitably distributed among the local people. The people empowerment program to develop Dukuh Talun Kacang, a small kampong in Kandri that is closest to Kreo Cave, as a tourism village has certainly helped job expansion. However, improvement and innovation are certainly needed by the program. Relevant training and credit help to initiate related small to medium businesses are two measures proposed by some respondents.

B. Taxation

It is apparent that the local people are well aware of the importance of taxation in development, and they pay all the taxes obligated to them. They also perceive that equity failure for this aspect is at a low level. However, their perception that the trend in the last five years is fair but worsening could be worth noting. It could be an indication that the amount of taxes the people should pay is increasing and out of line with the utility they expect.

C. Minimum Wage

The local people agree decisions about the minimum wage should not be left to market mechanisms alone. Local government should intervene in favour of the worse-off. Many respondents even propose that the people should be involved in defining the minimum wage rate. No wonder then, many perceive that the minimum wage decreed by the city government is too small as, voiced by 68.3% respondents, although equity failure in the implementation of this aspect is perceived at a moderate level with a fair and improving trend in the last five years.

D. Social Security

Equity failure in the aspect of social security is also considered low by the people with a significantly improving trend ('not bad') in the last five years. Interestingly, none of the respondents perceives that jobless people should get a social allowance for fulfilling their basic needs although many of them believe that the government should facilitate people to fulfill their fundamental needs. This to some extent shows that Kandri people are actually hard working with a good work ethos. The positive social relationship among the people is another important, encouraging force. However, that every two out of five households propose health insurance as the most needed type of social security reveals that the national program of health insurance for all Indonesian citizens, known as the Healthy Indonesia Card (*Kartu Indonesia Sehat/KIS*) launched by the new President Joko Widodo, has not reached these people.

E. Education Services

All of the people agree that good and affordable education should be available for all (equal opportunity). In general, inequity in education services is considered at a moderate level with a fair and slightly improving trend in the last five years. The moderate, and not low, level of inequity is most probably influenced by the significant distances for the children to go to their junior and senior high schools, although many parents already have private vehicles, especially motorcycles, and minibuses as the public transportation mode are available, although not frequent.

F. Health Services

All respondents believe that good and affordable health services should be available for all. Equity failure in this aspect is considered at a low level with a fair and improving trend in the last five years. However, a somewhat contradictory situation is revealed in so far as 40% respondents consider that the health services in Kandri Village are still insufficient in terms of both the facilities and the paramedics. Furthermore, as evident from the aspect of social security, the KIS program should be accelerated to immediately cover this village, especially because the lack of health facilities and paramedics in the area has forced the people to use services in other areas.

G. Basic Infrastructure

In this aspect, the people also agree that good and affordable basic infrastructure should be available for all

(equal opportunity). Inequity in this respect is perceived at a moderate level with a fair but worsening trend. It is alarming because 21% respondents notice that the basic infrastructure is inappropriate, for example, improper road conditions. More unfortunate is clean water, which is often lacking in supply or not clean enough. It is ironic because the Jatibarang Reservoir is located in this area.

5. Concluding Remarks

Overall, the benefit distribution function of Kreo Cave tourism development is not bad, with only moderate equity failure perceived. However, among the seven policy aspects, severe equity failure pertains in job opportunity. It is surprising because the Kreo Cave tourism development has been supported by a community empowerment program, especially in developing Kampong Talun Kacang as a tourism village. Furthermore, the operation of the Jatibarang Reservoir in the area since May 2014 is expected to improve attractiveness. Therefore, policy reformulation in the job expansion should be prioritized.

A. Prioritization in the Policy Reformulation

The prioritization based on the level of equity failure and the trend should be as follows:

1. Job opportunity
2. Basic infrastructure
3. Education services
4. Minimum wage
5. Taxation
6. Health services
7. Social security.

B. Important Features to Consider in the Policy Reformulation

The local people are those who feel most about the equity failures in benefits distribution. Therefore, their aspirations should be considered in the policy reformulation so that the public action can better facilitate them in getting equitable benefits from the development. The main aspirations as responses to the semi-open to open questions in the questionnaire are as follows:

- Local people should be prioritized in getting jobs related to the tourism development. An important measure is that the community empowerment program should be improved to encompass villagers who live distant from the Kreo Cave and Jatibarang Reservoir.
- Benefits sharing, including the minimum wage, should be defined by involving local communities (neighbourhood units) in discussions. As a preliminary consideration, the average need to have a proper standard of living according to the people is Rp 1,684,525 per person per month (or around US\$ 126.8), which means that a household with one child should have at least Rp 5,053,575 per month. This is far higher than the minimum wage applied in Semarang City, Rp 1,663,000 per labour per month (Note 7).
- Other minority aspirations are present, such as the needs for capacity building in terms of relevant skill training, small business credit help and better public transport services. Although the voice is in the minority, it cannot be overlooked due to the relevant content of each of the proposed measures. Training in improving tourism related skills will increase job opportunity and so will business credit help. Meanwhile, not only will improving public transport help the local people with better infrastructure, but also improve attraction of the tourist destination.

It is important to conclude that equity application in terms of ensuring fairness in the development process and justice in the distribution of the benefits is at the core of the efforts towards sustainable development. This study can be considered preliminary as far as policy reformulation to facilitate more equitable benefits distribution in the Kreo Cave tourism is concerned. Further studies on policy reformulation of especially the aspects of job opportunity, basic infrastructure, education services and minimum wage are needed.

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Notes

Note 1. See e.g. http://www.dailymail.co.uk/travel/travel_news/article-2842324/The-world-s-popular-tourist-attractions-Istanbul-s-Grand-Bazaar-tops-list-91MILLION-visitors-not-single-UK-destination-makes-50.html for the list of top 50 world tourist destinations.

Note 2. See the news in The Jakarta Post at <http://www.thejakartapost.com/news/2013/02/02/foreign-tourist-arrivals-bali-43-percent.html>.

Note 3. Press Release, Ministry of Tourism and Creative Economy of the Republic of Indonesia, 18 March 2014 (<http://www.parekraf.go.id/asp/detil.asp?id=2555>).

Note 4. Based on the first author's experience when supervising the Undip MPWK's (Master of Urban and Regional Development) students for a fieldwork trip to Jembrana Regency, Bali in 2009.

Note 5. For a discussion of the stages of sustainable tourism development, see e.g. Inskeep (1991).

Note 6. Some scholars classify it into the philosophy of post-positivism (see e.g. Creswell, 2014).

Note 7. See the news in Tempo Online Magazine at <http://nasional.tempo.co/read/news/2014/09/29/058610407/umk-kota-semarang-2015-diisulkan-rp-1-6-juta>

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