

The Challenge of Development in a World Cultural Heritage Site

Case Study of Borobudur Area in Java



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1 Urban Sector Review

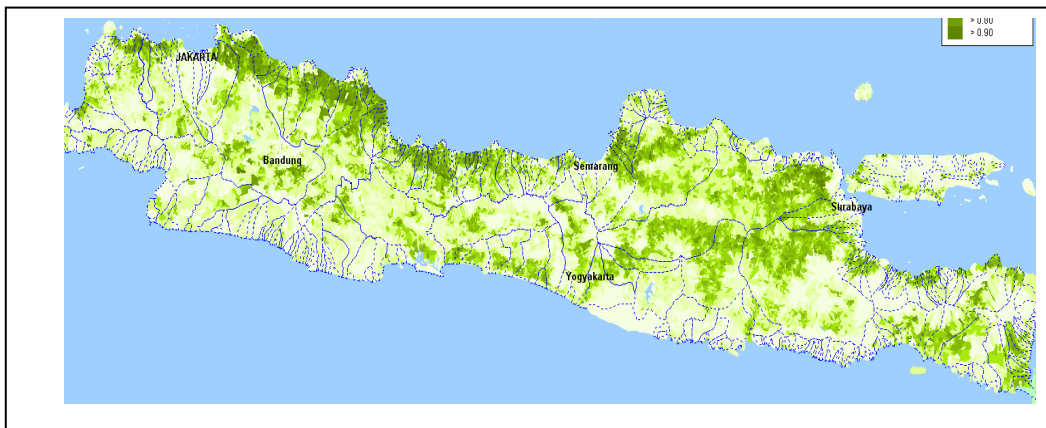
1.1 Basic General Data

Indonesia is an archipelagic country composed of more than **17,504** islands, which only around 6,000 are inhabited. The total land area is around 1.9 million square kilometres. Out of this, only 700 thousands square kilometres (**38%** of all the land) is habitable area. The five largest islands are Java, Sumatera, Kalimantan, Sulawesi and Papua. Jakarta is the capital city of Indonesia located in Java Island.

Picture 1: Indonesia Map



Source: www.wikipedia.org.id



Picture 2: Java Island

Source: www.wikipedia.org.id

Demographically, Indonesia is the world's fourth most populous country with population of more than 224 million people, composed of more than 300 ethnic groups scattered throughout the regions. Almost 60% of the population resides in the island of Java which only accounts for 7% of the area. Administratively, Indonesia consists of 33 provinces. Each province is subdivided into regencies and cities, which are further subdivided into sub districts, and again into villages grouping.

Demography and Health

Indonesian population is the fourth biggest country in the world after China, India and United States. The average density is 134 people per square kilometre (374 per sq mi), and Java is the world most populous island, has a population density 940 people per square kilometre (2435 per sq mi). Almost 60% of the population resides in the island of Java which only accounts for 7% of the area

The population growth rate was 1.2 % in 2007. By 2025 it is estimated that about **65%** of Indonesia's population or 180 million people will occupy urban areas, primarily in 16 large and metropolitan cities.

Life expectancy at birth in 2006 was 68 years old. Fertility rate 2.2 total birth per woman, mortality rate under 5 was 34 per 1000.

Economy

Indonesia's estimated Gross Domestic Product (GDP) for 2007 is US\$ 408 billion; the estimated nominal per capita GDP is US\$1,812. The services sector is the economy's largest and accounts for 45.3%, this followed by industry (40.7%) and agriculture (14%). However agriculture employs more people than other sector, accounting for 45.3% for the 95 million strong workforce. This is followed by the services sector (36.9%) and industry (18.8%). Major industries include petroleum and natural gas, textiles, apparel, and mining. Major agricultural products include palm oil, rice, tea, coffee, spices, and rubber.

1.2 Urban Facts and Figures

Indonesia currently has big problems in conserve and protects the heritage and conservation areas. Many heritage buildings and conservation areas are destroyed due to there are no attention to preserve and to conserve.

1.3 Policy

Various attempts to conserve the Borobudur Temple Area and its Cultural Landscape were introduced in the form of laws and regulations. It is clearly stated in the Government Regulation No. 26 of 2008 on National Spatial Planning, that Borobudur Temple Area is stipulated as National Strategic Area which is

prioritized in spatial management due to its important influence in the national point of view to state sovereignty, defence and state security (since Magelang is the hub of arial war training zone), economy, society, culture, and/or environment, including regions established as part of world heritage.

Directorate General of Spatial Planning under Ministry of Public Works has developed a scenario on spatial planning for the Borobudur Temple Area. The mission of the spatial planning includes the following:

- To conserve the site;
- To preserve and control development in the cultural heritage area (temporarily freeze);
- To increase the physical quality/vitality of the area;
- To increase the appreciation and involvement of the community in the activities (economy, social, cultural) in the area.

1.4 Actors and their Roles

Borobudur Temple is stipulated as a national strategic area and thus, is prioritized in spatial management and development. National and local government have responsibilities to protect and and manage the Borobudur area.

At national level, Ministry of Public Works (Directorate General of Spatial Planning) and Ministry of Tourism have main responsibilities to protect the heritage area and to control the develoment in this area. Directorate General of Spatial Planning under Ministry of Public Works, as national government has established attempts to enhance control effort in Borobudur Temple area and its surrounding which are:

- evaluation of 1979 Master Plan of Borobudur Temple by JICA; and
- arrangement of Conservation Zoning Regulation in Borobudur Temple Area, the regulation needs to be strengthened to ensure the conservation of the Borobudur Temple and its setting as well as support the efforts to increase the welfare of the local community.

At local level, Provincial government and Regency government involved to protect and manage the Borobudur Area. In particular, Magelang Regency as local government has done some efforts, such as:

- review of Region Spatial Planning of Magelang Regency of 2005;
- relocation of Parking area and commercial activities from the second zone to the third zone;
- study of Community Empowerment within the area;

Currently, the Government of Indonesia is still in the process of formulating the Draft of Presidential Regulation on The Management of Borobudur as a World Cultural Heritage Area. This regulation is expected to provide a clearer authority in the spatial management of the Borobudur Temple Conservation Area and the role of each level of governments (national and local).

2 Organisation

Melva Marpaung is working at Ministry of Public Works, the national government. The Ministry has four Directorate General (DG), which are;

- DG of Building Roads and Bridges responsible for building national road infrastructure,
- DG of Water Resources responsible for water resources management and building dams,
- DG of Human Settlement responsible to give technical assistance to local level for housing and urban facilities such as sanitation, solid waste management and, water supply management
- DG of Spatial Plan.

Currently, Melva is in charge for planning and program division for Java and Bali islands under DG of Spatial Plan. The Directorate General of Spatial Planning the following responsibilities:

- To develop national spatial plan consisted spatial structure and pattern for national level of plan and development

- To develop policies and strategies for development of national strategies areas such as preserved and heritage area, conservation area, metropolitan area, etc at national concern.
- To develop plan and program for infrastructure development
- To give technical assistance to local government which are provincial and district governments to develop their own spatial plans.

3 Urban Problem

The Borobudur area is one of the world cultural heritages, which not only has economic value but also cultural, social, spiritual, and historical values. It located 10 km from Magelang city, Central Java Province, Java Island.

Borobudur is a major tourist destination area in Magelang Regency. This is shown by the number of tourist visited the place, about two millions, compared to the number of tourist that visited other areas in Magelang Regency which only ranging between six thousands to almost three hundred thousands.

In the Magelang Regency Spatial Plan 2005, Borobudur District, under the Sub-Region Development II is planned as one of the national tourism development centres, besides other regency functions, centre of municipal government, trade, economic activities, and wet-land agriculture. In addition, the Borobudur area consisted 470.683 inhabitants.

Table 1: Total Population and Density at Borobudur Area, 2005

No	Subdistrict	Total Population (inhabitants)	Total Area (ha)	Total courtyard (ha)	Density Bruto (inh/ha)	Density Nett (nib/ha)	Distribution (%)
1	Salaman	66.826	6.887	1.775	9	37	5,68
2	Borobudur	54.628	5.455	1.491	10	10	4,68
3	Ngluwar	28.966	2.244	585	12	49	2,49
4	Salaman	43.631	3.163	742	13	13	3,73
5	Muntilan	72.047	2.861	820	25	87	6,22
6	Mungkid	65.605	3.742	1.026	17	17	5,62
7	Mertoyudan	93.699	4.535	1.327	20	70	8,09
8	Tempuran	45.281	4.904	911	9	9	3,86
	Total	470.683	33.791	3063.619	115	292	

Source : Magelang Statistics, 2005

As mentioned above, the Borobudur Heritage Area is stipulated as National Strategic Area which is prioritized in spatial management due to its important influence in the national point of view to state sovereignty, defence and state security, economy, society, culture, and/or environment, including regions established as part of world heritage.

Picture 3: Borobudur Heritage area and surrounding



Source: Draft Report, *the Conservation Zoning Regulation of Borobudur Temple Area*, Ministry of Public Works, Jakarta, 2007.

Issues and Problems

There are several conservation and management issues in the preservation of Borobudur heritage area, which are:

1. Development pressure is one of the present and future challenges that have to be faced in the preservation of Borobudur World Heritage. The surroundings of the temple have experienced rapid development and have changed the setting from rural landscape into urban area. The uncontrolled development has caused an environmental degradation that threatens the preservation of the temple.
2. The environmental degradation in Borobudur surroundings has led to another consequence which is an announcement from UNESCO to remove Borobudur from World Heritage List. This situation cannot be separated from the involvement of Borobudur Tourism Park Company (PT.Taman Wisata) since so many local people run their economic activities in the

park followed by housing growth which are considered coming closer to the site. The propensity of the development generates increased urban area within. Another issue is the proposed commercial street, as it would result in enlargement of proportion of land and particularly commercialization around the temple. In the absence of clear policies and regulations for the development in the surroundings area has caused the emergence of development pressure, for example the presence of communication tower and industrial buildings nearby, the coming closer settlement to the monument and the existence of commercial activities. These urban behaviours remain a threat to the integrity of the landscape surrounding the World Cultural Heritage.

3. Moreover, the development pressure has caused significant land-use changes within the surrounding areas. It also generates commercialization endeavours around the temple, particularly since Borobudur Temple was acknowledged as World Culture Heritage in 1991 (Winarni, 2006). The table below illustrates the changes:

Table 2: Land-Use Changes in Years

Land-Use Changes	Period
<i>Changes of use from paddy field to settlements</i>	<i>1860 – present</i>
<i>Changes of use from paddy field to settlements and parks</i>	<i>1983 – present</i>
<i>Changes of use from paddy field to commercials and services</i>	<i>1979 – present</i>
<i>Buildings : changes from traditional architecture to modern building</i>	<i>1970s – present</i>
<i>Accessability : the development of a by – pass road</i>	<i>1979 – present</i>
<i>changes from open space to buildings managed by PT. Taman Wisata (museum, hotel, office, etc.).</i>	<i>1973 – present</i>
<i>Open space changes to hotel, homestay, kiosk, art shop, terminal, housing, street, market, vihara</i>	<i>1860 – present</i>

Source : Winarni, 2006

Picture 4: Pressure of Urban Activities at surrounding area.



Source: Draft Report, *The Conservation Zoning Regulation of Borobudur Temple Area*, Ministry of Public Works, Jakarta, 2007.

Based on the issues and problems explained above, some questions arised to be considered on developing solutions in concrete strategies and action plans, which are:

1. How can comprehensive strategic plan protect cultural heritage area from urban pressure?
2. How can local government develop economic activities and in order to increase the physical quality and vitality of the cultural heritage area?
3. How to increase the appreciation and involvement of the local community in the economical, social, and cultural activities related to cultural heritage area?

4 Proposal for Change and Improvement

Action Plans have to establish to enhance protection and controlled development efforts in Borobudur Temple based on those below recommendations:

1. Developing Comprehensive strategic plan is a tool that can protect cultural heritage area from urban pressure if there is strong government initiative.
2. Developing economic activities and in order to increase the physical quality and vitality of the cultural heritage area if there is an integration of conservation effort.
3. The appreciation and involvement of the local community can be increased in the economical, social, and cultural activities related to the heritage area if there is an effort concerning the integration of local community together with the heritage area.

The Action Plans should be taken to address the above recommendations:

1. The formulation of the Comprehensive Strategic Plan of Borobudur Heritage and Conservation Area is based on the following considerations:

- Conservation aspect;
- Integration Urban and Rural aspect;
- Tourism and local economic aspect;
- Social aspect;
- Infrastructure development;
- Management aspect;

The plan should be developed together with National and Local Governments and committed to be implemented with other sectors related at national and local level.

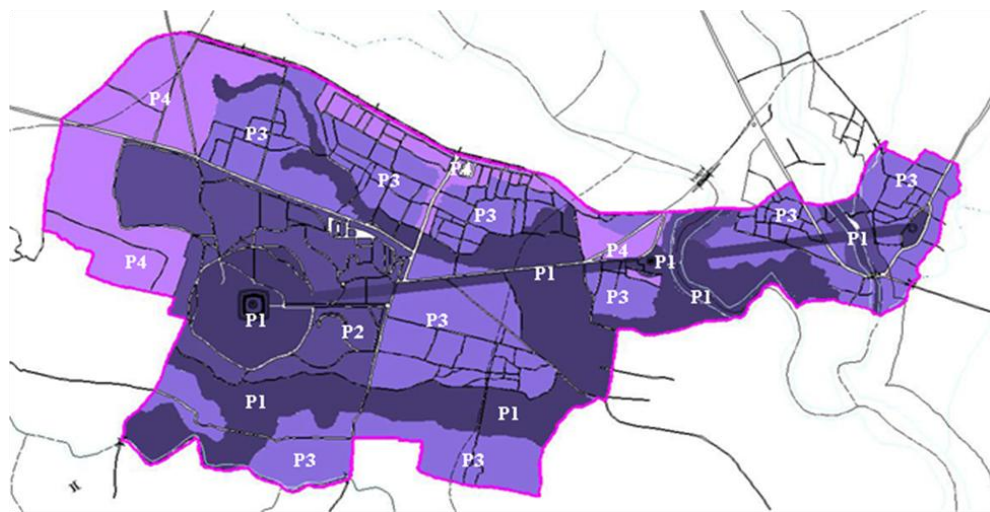
2. The Comprehensive Strategic Plan should consist such as consistent Development Control Plan, enforcing regulations, active, ongoing involvement of institutions. The Development Control Plan of the area is formulated by the means of conservation code apart with zoning regulation. This classification conservation grouped based on the character below:

- a. Zone **P1** is a zone with the main action to preserve everything without any changes for development. This zone is restricted and protection area for Borobudur, Pawon and Mendut temples and its protection area, river and paddy fields (ex ancient lake).
- b. Zone **P2** is a zone with very restricted development that not interfere the temples and surroundings ecosystem with the main land use is for open space. The kind of development arranged with the urban design concept. This zone is characterized for Borobudur Temple Cultural Park.
- c. Zone **P3** is a restricted development zone with restricted changes that not interfere the temples and surroundings ecosystem. The physical development arranged with the area design concept that toward to a delicate variation in rural tone. This zone is specified by rural settlements.
- d. Zone **P4** is special development zone for commercial, cultural and social function. The physical development arranged with the area design concept

that toward to a delicate variation in rural tone. The development also must be done to support tourism activity that not interfere the temples and surroundings ecosystem.

In addition, the integration among the zones and the role of stakeholders in future for Borobudur development area management needs to be strengthening.

Picture 5: Map of Classification Concept



Source: Draft Report, *The Conservation Zoning Regulation of Borobudur Temple Area*, Ministry of Public Works, Jakarta, 2007.

3. Implementation of the above Plan should be supported by establishment of regulations by the Regency Government of Magelang. It is urgently required that Magelang Regency Government plays a significant role in the formulation of regulation to forestall unacceptable urbanization surrounding Borobudur.
4. Establishment of regulation that limit development along main infrastructure and development of urban type land use which are likely to have an undesirable impact on the visual, physical or heritage features of the temple and its cultural landscape setting.

5. Establishment an institution consisted national, provincial and regency government, private sectors, community groups to develop concrete roles of each stakeholders to work together in the implementation of the Plan.
6. Also establishment informal partnership decrease conflicts and different concern amongst the community. Also the partnership is to develop economic and social activities which are suitable to community and to the character of the Borobudur heritage area.

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