1. **Executive Summary of the report**

[Note: each of the sections described below should be summarized. The maximum length of the executive summary is 1 page.]

This report, addressed to the World Heritage Center, is in response to the request of the Director of the World Heritage Center by letter number CLT/WHC/APA/FJ/KN/21/34 dated 9 March 2021 to the Indonesian Ambassador to Paris/the Permanent Delegation of the Republic of Indonesia to UNESCO regarding The State of Conservation of the World Heritage property 'Borobudur Temple Compounds', which conveys the consideration of the World Heritage Center and Advisory Bodies so that preservation of the Borobudur Temple Compounds may be part of the agenda for the discussion of the World Heritage Committee for its 44th Session in 2021, especially concerning with the proposed development of visiting facilities in and around the World Heritage treasure "Borobudur Temple Compounds." Indonesia was asked to follow up on recommendations from ICOMOS's Preliminary Technical Review:

1. The State Party modify the Concept and Development Plan for the Borobudur Area by taking into account the Conclusions and Mitigation Recommendations for all the development components as stated on pages 31-65 of the Executive Summary of the HIA.

2. When modified, the HIA consultants should be invited to undertake another modified program assessment.

3. As the present designs are only preliminary, a further evaluation should be undertaken when detailed architectural and engineering designs and specifications have been finalized.

4. A Design Review Panel of local experts be set up to assess the detailed designs.

5. When the revised Management Plan (presumably in the form of the Integrated Tourism Management Plan) is submitted, the recommendations contained in the present HIA should be revisited to determine the adequacy of provisions made concerning sustaining and managing the property’s OUV.

6. The mechanics of visitor management be addressed in the modified Program in consonance with the revised Management Plan, especially where solutions are dependent on correlating parameters related to sustainable tourism, carrying capacity, etc.

7. The findings and feedback from stakeholders in the public consultation meetings should be examined and incorporated into the Program’s suitable and expedient designs.

This report, prepared based on the standard format in Annex 13 of the Guidelines for the Implementation of the World Heritage Convention, in English, contains progress towards the implementation of efforts by Indonesia since the most recent Decree of the World
Heritage Committee with number from its 38th Session (2009), identification of the existence of sustainability issues not listed in Committee Decisions since the inscription in 1991 or the World Heritage Center's request in its latest letter, and the Government of Indonesia's response to seven recommendations from ICOMOS's Preliminary Technical Review.

For ease of reference, attached to this report are (1) The State of Conservation (2009) established by the World Heritage Committee through Decree number 33 COM 7B.74 - Borobudur Temple Compounds (Indonesia) (C 592), (2) Statement of External Universal Values Ordinary (20212) which the World Heritage Committee has adopted through Decree number 36COM 8E - Adoption of retrospective Statements of Outstanding Universal Value, and (3) Boundaries and Supports which have been updated (2021) from those ratified (2012) by the World Waerisan Committee through Decree number 36COM 8D - Clarifications of property boundaries and areas by States Parties in response to the Retrospective Inventory. At the request of the World Heritage Center, the following documents are also attached.

1) Management Plan for Borobudur Temple Compounds (2021)
2) Heritage Impact Assessment of Borobudur Temple Compounds (2020)
4) Comments on the project from the Borobudur Conservation Office.

2. Response to the Decision of the World Heritage Committee

[Note: The State(s) Party(ies) is/are requested to address the most recent Decision of the World Heritage Committee for this property, paragraph by paragraph.]

At the 33rd Session (Sevilla, Spain, 2009), the World Heritage Committee discussed the State of Conservation of Borobudur Temple Compounds which is one of the item 7B agenda items of the Provisional Agenda: State of conservation of World Heritage properties inscribed on the World Heritage List, and stipulated Decree 33COM 7B.74 - Borobudur Temple Compounds (Indonesia) (C 592).

Paragraph 7 of the Decision 33 COM 7B.74 - Borobudur Temple Compounds (Indonesia) (C 592) asks Indonesia to convey its efforts to implement the World Heritage Committee Decree as follows.

Decision Paragraph 3. (legal and institutional framework for the protection and management of the property and its surrounding area)

3. i. Development of the new Presidential Decree
3.ii. Updated Master Plan

Decision Paragraph 4 (Statement of Outstanding Universal Value)

4. i. Update the draft Statement of Outstanding Universal Value
4.ii. Develop a management plan, based on the Outstanding Universal Value of the property and integrating, visitor management and community

Decision Paragraph 5. (Stone conservation)

5. i. Practices that appear to have a negative impact on the stone
5.ii. Find a substitute for the epoxy resin
Since 2009, Indonesia has continuously strived to improve the legal and institutional framework for protecting and managing the property and its surrounding area, particularly regarding the status of cultural protection and spatial planning.

Decree of the President of the Republic of Indonesia Number 58 Year 2014 Concerning Spatial Planning on Borobudur Area for ensuring and establishing the implementation of Law of National Spatial Planning Number 26 Year 2006 and Governmental Decree Number 26 Year 2008 Concerning National and Regional Spatial Planning. This Decree considers as an essential part of continued efforts for revising the existing legal framework (Presidential Regulation No. 1 of 1992 on Borobudur Tourist Center and Prambanan Tourist Center and the Preservation of Its Surrounding Area), in particular for integrating the different zoning system from JICA 1979 Zonation Plan to national spatial planning. In addition to this designation, Based on Presidential Regulation No. 50 of 2011 on Tourism Development Master Plan 2010-2025, Borobudur Temple Compound has been designated as one of the National Strategic Tourist Destination.

Decree of the Minister for Education and Culture of the Republic of Indonesia Number 286/M/2014 Concerning Borobudur geographical space unit as a national cultural heritage for ensuring and establishing the implementation of Law of Item Cultural Property Number 11 Year 2010.

Decree of the Coordinating Minister for Human Development and Culture Number 20 year 2016 on the establishment of a national-level Coordination Team for the Conservation and Management of Indonesian Cultural and Natural Heritage, for ensuring the protection and management of the world heritage properties in Indonesia at the national level. This national-level Coordination Team involves 12 relevant Ministries and Agencies (Decision Letter as attached in the Annex). To further optimize the function of the Coordination Team, the Government of Indonesia is currently revising the Decree by increasing the involvement of 13 other Ministries and Agencies into 25 Ministries and Agencies in total. The main responsibility of the Coordination Team is to synchronize policies on the protection and management of the Property across Line Ministries. This National level Coordination Team also has another priority which is to fully support the operationalization of the Coordination Forum at the Property. This Decree considers as an essential part of continued efforts for revising the existing legal framework (Presidential Decree Number 1 of 1992), in particular for managing the different zoning system from the JICA 1979 Master Plan.

The Statement of Outstanding Universal Value has been updated and adopted by the World Heritage Committee through Decree number 36COM 8E - Adoption of retrospective Statements of Outstanding Universal Value. Boundaries and Buffer updated (2021) through the activities of the Third Cycle of the Periodic Reporting (2018-2024) from those approved (2012) by the World Waits Committee through Decree number 36COM 8D - Clarifications of property boundaries and areas by States Parties in response to the Retrospective Inventory.

Stone Conservation of the Borobudur Temple Compounds is the main task and function of the Borobudur Conservation Office, the technical implementation unit for cultural protection of the Ministry of Education and Culture. Starting in 2010, the Borobudur Conservation Center has developed research on the use of natural materials for the conservation of cultural heritage. The Center also develops measures and activities for to prevent and reduce wear of building stones, and in this regard also involving the peoples from the surrounding of the Borobudur area in the development of visitors’ footwear to prevent wear of the temple stones in realizing the preservation of Borobudur Temple. All
the conservation practices that have potential adverse effects have been stopped or reduced gradually.

1. **Other current conservation issues identified by the State(s) Party(ies) which may have an impact on the property’s Outstanding Universal Value**

   [Note: this includes conservation issues which are not mentioned in the Decision of the World Heritage Committee or in any information request from the World Heritage Centre]

   There are no current conservation issues identified

2. **In conformity with Paragraph 172 of the Operational Guidelines, describe any potential major restorations, alterations and/or new construction(s) intended within the property, the buffer zone(s) and/or corridors or other areas, where such developments may affect the Outstanding Universal Value of the property, including authenticity and integrity.**

   Within the framework of the national tourism policy, Borobudur Temple Compounds and the surrounding area is one of the 88 National Tourism Strategic Areas stipulated by Presidential Regulation Number 50 of 2011 concerning the National Tourism Master Plan. This puts Borobudur Temple Compounds as the main attraction for tourist visits in Central Java Province. Borobudur Temple Compounds later is designated as one of the super-priority tourist destinations that need to be developed and utilized while preserving these Buddhist Monuments as one of National Cultural Heritage and World Heritage property.

   In 2019, the President of the Republic of Indonesia designated 5 super priority destinations: Lake Toba in North Sumatra, Borobudur in Central Java, Mandalika in West Nusa Tenggara, Labuan Bajo, Komodo Island in East Nusa Tenggara, and Likupang in North Sulawesi. The Presidential Instruction is the basis for the KemenPUPR to plan the arrangement and development of the Borobudur Temple Compound, consist of:

   A. Culture District Identity Gate (Zone 5 and outside of the JICA 1979 Zonation Plan)
   B. Mendut – Pawon – Borobudur Culture Axis Pathways (Zone 3 of the JICA 1979 Zonation Plan)
   C. Borobudur Concourse Area (Zone 2 of the JICA 1979 Zonation Plan), and
   D. Relocation of Commercial and Parking Area (Zone 2 of the JICA 1979 Zonation Plan) to the Borobudur Village Art Market at Kujon (Zone 3 of the JICA 1979 Zonation Plan).

   Then, meetings have been held to discuss the arrangement plan. The High-Level Ministerial Meeting produces decisions, among others.

   1. All concepts and designs for the arrangement and development of Borobudur Temple Compounds must be approved by the Ministry of Education and Culture, and
   2. The arrangement and development plan that is allowed to continue is
      a. improving the quality of environmental roads in Bojong Village,
      b. construction of the Elo River bridge,
      c. improving the quality of environmental roads in Wonorejo Village, and
      d. is improving the quality of Sendanglanang and Sendangwadon.
These projects are carried out to develop the village community's quality of life around the Culture Axis Pathway of Borobudur Temple Compounds.

1. The project that may be executed with restrictions is the arrangement of the Concourse Area.

2. Development projects that have been postponed until the publication of the ICOMOS recommendation on the reading of the HIA are:
   a) Palbapang Gate Arrangement
   b) Development of the Community Center of Kembanglimus
   c) Arrangement of Kembanglimus gate, Skywalk Development in Bojong Village, and
   d) Progo River Bridge Construction.

All development and structuring plans at BTC are available in the attached DED.

3. **Public access to the state of conservation report**

   [Note: this report will be uploaded for public access on the World Heritage Centre’s State of conservation Information System (http://whc.unesco.org/en/soc). Should your State Party request that the full report should not be uploaded, only the 1-page executive summary provided in point (1.) above will be uploaded for public access].

Uploading this report for public access on the World Heritage Centre’s State of Conservation Information System (http://whc.unesco.org/en/soc) is accepted without reservation.

Signature of the Authority

Hilmar Farid
Director General of Culture
BOROBUDUR TEMPLE COMPOUNDS
MANAGEMENT PLAN
Borobudur Temple Compounds was inscribed as a World Heritage through the World Heritage Committee decision number 15.COM XV at the 15th UNESCO World Heritage Committee meeting 1991 in Carthage, as a noble desire from the Indonesian people to preserve the largest Buddhist monument in the world as well as a reminder of the solidarity and contribution of various countries through international protection efforts.

Borobudur Temple Compounds situated in the Kedu Basin, located right in the middle of Java Island, Indonesia. Volcanoes and hills surround this basin. There are Mount Merbabu and Mount Merapi, which are still active, while along its south side stretches a series of Menoreh Hills from east to west. Mount Sumbing and Mount Sindoro seem to limit this basin on the west and northwest sides, continuing with Tidar Hill in the north. Meanwhile, Mount Andong and Mount Telomoyo are to the northeast of the basin. As a World Heritage, Borobudur Temple Compounds consists of three temples with a Buddhist background, erected in a straight line from west to east. Borobudur Temple, the largest, is on the west side. To the east, there are the smallest Pawon Temple and the slightly larger Mendut Temple, respectively. Between the Mendut and Pawon Temples, two large rivers, namely the Progo River and the Elo River, are imagined to be the Gangga and Yamuna Rivers, two sacred rivers in India.

Founded on the orders of Sri Maharaja Samarattungga of the Sailendra dynasty in around 800 AD, then abandoned for hundreds of years, Borobudur became a rubble shrouded in thickets forest. When it was rediscovered in 1814 by Sir Thomas Stamford Raffles, Governor-General of the Dutch East Indies during British rule, this place was named Bumisegoro. From the reign of the Dutch East Indies to the Republic of Indonesia, Borobudur Temple Compounds became the subject of a sustainable conservation of cultural heritage.

The management of the Borobudur Temple Compounds is regulated by a number of regulations at the national level, including Law of the Republic of Indonesia Number 11 of 2010 concerning Cultural Heritage for the status of the National Cultural Heritage Area of Borobudur and its Surroundings (2014), Law Number 10 of 2009 concerning Tourism as a Destination National Tourism and National Tourism Strategic Areas (2011), and Law Number 26 of 2007 concerning Spatial Planning as a National Strategic Area for Borobudur and its Surroundings (2014).
Apart from the national level, at the international level, the Borobudur Temple Compounds was designated and protected as a World Heritage through the ratification of the UNESCO Convention in 1972 concerning the Convention Concerning the Protection of the World Cultural and Natural Heritage by the Republic of Indonesia in 1989, and strengthened by Presidential Decree Number 26 years 1989 which ratified the Convention; Decree of the UNESCO World Heritage Committee number SC-91 / CONF.002 / 15 on 12 December 1991 regarding the inclusion of the Borobudur Temple Compounds into the list of World Heritage Sites number 592; UNESCO Convention 1954 in The Hague on Protection of Cultural Property in the Event of Armed Conflict.

In addition, the success of the restoration program at the Borobudur Temple Compounds in 1973-1983, which is very well documented as an archive at the Borobudur Conservation Center, has also been designated as Memory of the World in 2017. This determination further strengthens the importance of the Borobudur Temple Compounds which needs to be appreciated not only as a monument but as a site where conservation activities have been going on for a long time and can be a source of knowledge and inspiration for the general public as well as academics and practitioners in related fields of science.

Jakarta, 24 March 2021
Director General of Culture

Hilmar Farid
The Borobudur Temple Compound covers three temples, namely Borobudur Temple and two other temples to the east, namely Pawon and Mendut temples. These three temples are in an imaginary straight line, with Pawon Temple being the closest to Borobudur Temple. Borobudur Temple has a step pyramid shape which is a common form of pre-Hindu and Buddhist buildings. The complete form of the temple is a unique blend of ancestor worship and the attainment of Nirvana for Buddhists. The reliefs and statues show high artistic value as a form of the long-known tradition of stone carving. The Borobudur Temple Compounds was added to World Heritage Sites in 1991 and restored with help from UNESCO in the 1970s.

Referring to the SOUV retrospective, the attributes of the Borobudur Temple Compound are as follows:

1) Three buildings of Borobudur, Mendut and Pawon temples, along with all their elements (shape, material, terrace arrangement, relief, stupa);
2) An imaginary corridor connecting the three temples as a symbol of the attainment of Nirvana;
3) Borobudur Cultural Landscape, which consists of elements of the natural environment and culture of the people (including rural, traditional, and agricultural), nearby temples that have been discovered or not, and a scenic view from Borobudur to the mountains. All are “historical settings” of the Borobudur Temple Compounds;
4) Traces of the Ancient Lake as evidence of the Borobudur Temple Compound being in a water environment (lake) like a lotus (flower symbol of Buddha’s greatness);
5) Architectural and artistic elements in the Borobudur Temple Compound, including spatial arrangement, stone arrangement, temple construction technology, artistry, arrangement of a distinctive terraces, material selection, arrangement of statues position, water channel system (Jaladwara), sculpture, art (variety) of decoration, art of sculpture, and art of symbolism;
6) The ability to combine old and new cultural elements as well as multicultural/inclusive traits.

This Management Plan is intended to be a shared framework for all stakeholders to preserve the Borobudur Temple Compounds sustainably. In preparing this Management Plan, various problems faced in conservation, stakeholders, policies, and strategies that can be taken have been mapped. It will serve as a direction for all parties in carrying out protection, utilization, development, and interpretation and presentation of the Outstanding Universal Values. The policies, strategies, and programs formulated in this Management Plan have taken into account many factors, including environmental, social, economic, cultural, and natural.

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### Glossary

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<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Borobudur Temple Compounds</strong></td>
<td>Site properties as defined in the UNESCO WHC decree in the list of World Heritage Sites Number C-592. The boundaries of the property area refer to the decision adopted by UNESCO WHC in 2012, as well as the JICA Master Plan as the basis for its management.</td>
</tr>
<tr>
<td><strong>Borobudur National Strategic Area</strong></td>
<td>Areas around Borobudur which spatial planning is prioritized because it has a very important national influence which has been designated as a world heritage (with Number C-592). This area covers an area within a radius of at least five kilometers from the center of Borobudur Temple and includes the Palbapang Corridor which is outside a five kilometer radius from the center of Borobudur Temple. Borobudur National Strategic Area is divided into Conservation Subregion 1 and Conservation Subregion 2. As regulated in Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surrounds.</td>
</tr>
</tbody>
</table>
| **Borobudur National Strategic Tourism Area** | A tourism development area which development is under the Borobudur Authority Agency as regulated in Presidential Decree Number 46 of 2017 and Decree of the Minister of Tourism Number 10 of 2017. The scope of the Borobudur Tourism Area includes:  
  a. Borobudur National Tourism Destination Area - Yogyakarta and its surroundings, Solo National Tourism Destination - Sangiran and its surroundings, Tourism Destination - National Tourism Semarang - Karimun Jawa and its surroundings as stated in Government Regulation Number 50 of 2011 concerning the National Tourism Development Master Plan 2010-2025;  
  b. The Borobudur area as regulated in Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surroundings;  
  c. An area of at least 300 (three hundred) hectares outside the area, which is a forest area located in Purworejo Regency which is managed by Perum Perhutani. |
<p>| <strong>Cultural Heritage</strong> | Cultural heritage is material in the form of cultural objects, buildings, structures, sites, and areas on land and/or in water which existence needs to be preserved because they have important values for history, science, education, religion, and/or culture through a provision process. |
| <strong>Cultural Heritage Area</strong> | A geographic space unit having two or more Cultural Sites which are located close together and/or a Structure as a result of human activities or evidence of past events. |</p>
<table>
<thead>
<tr>
<th>Cultural Heritage Sites</th>
<th>locations that are on land and/or in water containing Cultural objects, buildings and/or structures as a result of human activities or evidence of past events.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preservation Area 1</td>
<td>National Cultural Heritage Area and world cultural heritage, which are the main conservation areas for Cultural Heritage sites, which urgently control the growth of the built-up areas in order to preserve the Borobudur, Pawon, and Mendut temples and their environment.</td>
</tr>
<tr>
<td>Preservation Area 2</td>
<td>buffer zone of the National Cultural Conservation Area and world cultural heritage, which is an area to protect the distribution of undeveloped sites directed at controlling the growth of the built-up area in order to maintain the existence of the potential for the distribution of the undeveloped Cultural Heritage and visibility.</td>
</tr>
</tbody>
</table>
| Masterplan JICA        | master plan prepared by JICA (Japan International Cooperation Agency) based on a request from the Indonesian government as the basis for the management of the Borobudur area in 1979 The JICA Master Plan divides the Borobudur area into 5 (five) zones:  
  1) Zone 1, the archaeological environment preservation zone. This zone has an area of 44.8 ha including the core zone of Ngawen and Mount Wukir.  
  2) Zone 2, archaeological park zone (Archaeological Park Zone). This zone is created as a buffer zone and as a park facility and service area for visitors, covering an area of 87.1 ha.  
  3) Zone 3, the land use regulation zone. This zone covers all 3 villages, namely Borobudur Village, Wanurejo Village and Mendut Village covering an area of 10.1 km2.  
  4) Zone 4, the zone for preserving historical scenery (Historical Scenery Preservation). The total area of zone 4 is 26 km2.  
  5) Zone 5, the national archaeological park zone (National Archaeological Park Zone). This zone covers an area of 78.5 km2 within a 5 km radius of Borobudur Temple. |
| World Heritage Committee (WHC) | The World Heritage Committee is a UNESCO sub-agency established to implement the UNESCO World Heritage Convention 1972, consisting of 21 member countries. This Committee has the right to determine the provision and write-off of a heritage from the World Heritage List. |
Reactive Monitoring | a monitoring and surveillance mechanism through reporting on the state of conservation of a world heritage which faces serious problems. Reporting can be made by the advisory body of the WHC, the World Heritage Secretariat, or other sectors of the UNESCO organization to the WHC (article 169 Operational Guidelines for the Implementation of the World Heritage Convention). Reactive Monitoring is often done as a procedure before putting a property in the world heritage list in danger or even deleting it from the World Heritage list.

Outstanding Universal Value (OUV) | Outstanding Universal Value, namely the outstanding values possessed by a property (cultural heritage or natural heritage) that transcends national recognition and has an important role for current and future generations of all mankind. Therefore, it is recognized as a world heritage which protection is very important for the entire international community.

Buffer Zone | An area around the nominated property and allocated for an additional layer of protection for the property by applying special binding regulations.

Sustainable Development | Development based on the idea that people must live and meet their needs without sacrificing resources that will also be needed by future generations. In other words, development that is oriented towards conservation.

State of Conservation | The condition of the preservation of a world heritage at a time can be measured from the authenticity and integrity of the attributes of the Outstanding Universal Value, including the presence or absence of threats to these attributes.
Chapter 1

INTRODUCTION
I.1 Background

Borobudur Temple Compounds was inscribed as a World Heritage at the UNESCO World Heritage Committee (WHC) session in 1991. Borobudur Temple, which is one of the attributes of this complex, is recognized as the largest work of art and Buddhist heritage monument, which, together with the whole complex, meet the criteria (i), (ii), and (vi). In order to fulfill the mandate of the Operational Guidelines for the Implementation of the World Heritage Convention (hereinafter referred to as the Operational Guidelines), so that each World Heritage has a clear and directed management plan, at that time the Indonesian Government proposed the Borobudur-Prambanan National Park Archaeological Masterplan in 1979 compiled by the Japan International Cooperation Agency/JICA (hereinafter referred to as the JICA Master Plan) to be used as the basis of the management plan.

In the JICA Masterplan concept, Borobudur Temple Compounds covers the entire conservation area consisting of three main temples, namely Borobudur-Pawon-Mendut, buffer zones, and cultural landscapes that also protect the potential for hidden archaeological remains. The entire area is divided into five protection zones named Zone-1 to Zone-5, which have their respective functions with a total area of 78.5 KM2. During its development, the preservation directives programmed in the 1979 JICA Masterplan were not consistently applied, causing several problems that received WHC UNESCO's attention. Several notes on the State of Conservation were given by the committee in 1995, followed by Reactive Monitoring in 2003 and some minor notes in 2004 and 2005. In 2006, WHC UNESCO again conducted Reactive Monitoring and provided several other notes in 2007, 2009, and 2012.

Issues that are of particular concern to the WHC UNESCO are as follows [See attachment 7.1: Summary of the UNESCO WHC documents relating to the Borobudur Temple Compounds for complete information]:

1. The emergence of new buildings with modern architecture in the protection zone that disturbs the landscape of the Borobudur Temple Compounds area,
2. The use of Borobudur, which is too commercially oriented, has disturbed its sustainability,
3. Negative impacts of tourism such as garbage, vandalism at temples and reliefs, visits that exceed their carrying capacity, absence of a visitor management plan, uncontrolled number of traders, and parking problems,
4. Lack of interpretation facilities and information regarding the Outstanding Universal Value (OUV) of the Borobudur Temple Compounds,
5. Management systems that are overlapping and less coordinated between sectors and there is no up-to-date management plan that can monitor its implementation,
6. The absence of a good land transportation infrastructure arrangement,
7. Considering that the Borobudur Temple Compounds is in a disaster-prone area, there needs to be a disaster risk reduction plan/disaster preparedness plan.
Considering the various problems of the Borobudur Temple Compounds above, the Government of Indonesia decided to conduct a study and evaluation to prepare a management plan that was more appropriate to the existing circumstances. After the 2006 Reactive Monitoring, the Government formed a team to review the JICA Master Plan and several other regulations related to the Borobudur Temple Compounds management. One of the regulations reviewed was Presidential Decree No.1 of 1992 concerning Management of the Borobudur Temple Tourism Park and Prambanan Temple Tourism Park and Control of the Area’s Environment, which became the primary basis and legal basis for the management of the World Heritage. The study results concluded that a more transparent and detailed new regulation on implementing the management of the Borobudur Temple Compounds was necessary to replace the Presidential Decree referred to above. A recommendation emerged to prepare a new Management Plan document under the dynamics of the development of community life without the need to change the concepts contained in the JICA Master Plan completely. The new Management Plan should be prepared in a participatory manner and can accommodate various parties’ interests in a balanced and fair manner. Besides, in the framework of preserving the cultural landscape, it is necessary to organize and control space use.

Following the UNESCO WHC program, the Statement of Outstanding Universal Value for Borobudur was reviewed and resulted in a Retrospective Statement of Outstanding Universal Value set in 2012. The boundaries of the core and buffer zones of the Borobudur, Pawon, and Mendut temples were adjusted, and several attributes were added in more detail than before (1991). One of the additions is Borobudur Temple’s statement as a lotus flower which is a sacred flower in Buddhism.

This statement is the basis for the preservation of traces of ancient lakes in the Borobudur Temple Compounds. Of course, this attribute’s preservation was not included in the JICA Master Plan because it could not be proven when the master plan was compiled. The existence of a Retrospective Statement of Outstanding Universal Value and the results of monitoring by the UNESCO WHC encourage the Government of Indonesia to adjust the management procedures for the Borobudur Temple Compounds so that its preservation can be maintained and various problems faced can be resolved.

As a follow-up, the Republic of Indonesia’s Government has formed at least two teams to prepare a Management Plan for the Borobudur Temple Compounds. One team was formed under the Ministry of Public Works and Housing to handle spatial planning matters. Another team under the Ministry of Culture and Tourism was assigned to conduct a Borobudur Temple Compounds Management System study.

The study of spatial planning was carried out based on the Law of the Republic of Indonesia Number 26 of 2008 concerning the National Spatial Plan, which has designated the World Heritage area of the Borobudur Temple Compounds as a National Strategic Area. Meanwhile, the team formed by the Ministry of Culture and Tourism carries out its duties based on the Law of the Republic of Indonesia Number 5 of 1992 concerning Cultural Heritage Objects.
The study of the spatial planning of the Borobudur Temple Compounds as National Strategic Area resulted in Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur and Surrounding Areas. This regulation is still the primary legal basis for controlling the spatial layout in the Borobudur Temple Compounds. Meanwhile, the management study team had since previously (2010) prepared an integrated management system for the Borobudur Temple Compounds by involving other stakeholders. The study resulted in an integrated management plan for the World Heritage of the Borobudur Temple Compounds, whose principles have been agreed upon by stakeholders. These results were then also contained in a Draft Presidential Regulation. However, unfortunately, due to various changes in institutions and laws, and regulations in the Republic of Indonesia, this study's results have not been translated into a binding regulation.

In terms of statutory regulations, the amendment is the enactment of Law of the Republic of Indonesia Number 11 of 2010 concerning Cultural Heritage to replace Law of the Republic of Indonesia Number 5 of 1992 concerning Cultural Conservation Objects. This new law has a different paradigm of conservation from the previous one, namely prioritizing cultural heritage preservation for the most significant benefit of the community. This new regulation also regulates the management procedures for cultural heritage areas. Thus, the needs arise to adjust the management system that has been prepared previously.

Before enacting Presidential Decree in 2011, there was a change in the Government of the Republic of Indonesia’s cabinet structure. The cultural sector, which was initially part of the Ministry of Culture and Tourism, became part of the Ministry of Education and Culture. This institutional change certainly impacted efforts to establish a new management system for the Borobudur Temple Compounds. The Ministry of Education and Culture’s organizational structure, which oversees the management of cultural heritage, continues to change so that the establishment of a new management system for the Borobudur Temple Compounds continues to be delayed.

However, lately there are more and more plans and efforts to utilize/develop the Borobudur Temple Compounds that can have an unfavorable impact on this World Heritage. Therefore, it is realized that the preparation of an Integrated Management Plan is very urgent to be done. This revised Management Plan is expected to provide maximum protection for the Borobudur Temple Compounds and direct the use/development efforts following its objectives as World Heritage so that the Outstanding Universal Value and its attributes are not diminished or lost.
I.2 General Purpose

As mandated by the Operational Guidelines, each World Heritage must have an adequate Management Plan or management system document. The management system should clearly describe the steps to be taken to ensure the preservation of the Outstanding Universal Value of the World Heritage. The main objective of developing and implementing a management system is to ensure the World Heritage’s adequate protection for present and future generations.

Based on the above mandate, this Management Plan is intended to be a shared framework for all stakeholders to preserve the Borobudur Temple Compounds sustainably. In preparing this Management Plan, various problems faced in conservation, stakeholders, policies, and strategies that can be taken have been mapped. This Management Plan will serve as a direction for all parties in carrying out protection, utilization, development, and interpretation and presentation of the Outstanding Universal Values possessed by the Borobudur Temple Compounds. The policies, strategies, and programs formulated in this Management Plan have taken into account many factors, including environmental, social, economic, cultural, and natural. This Management Plan is prepared based on the commitment of all stakeholders involved, both at the national, provincial, district, and local community levels.

I.3 Vision

This Management Plan is prepared based on the vision to make the Borobudur Temple Compounds a sustainable, educating, and prosperous World Heritage for humanity.

Sustainable: means that all the noble values of cultural heritage, both material and intangible, contained in the Borobudur Temple Compounds as extraordinary evidence of human wisdom and creativity in the form of monuments characterized by Buddhist architecture and art and their environment, will continue to be passed on to present and future generations. This vision follows the mandate of the 1972 UNESCO Convention and the Law of the Republic of Indonesia Number 11 of 2010 concerning Cultural Heritage.

Educating: is the primary function of the Borobudur Temple Compounds since these temples were erected more than thirteen centuries ago. This World Heritage must become a center of excellence for humanity to learn and get enlightenment about the God-Human-Nature relationship, multiculturalism, and humanity’s nature as contained in the Outstanding Universal Value of this World Heritage. Besides, the Borobudur Temple Compounds can become an encyclopedia for various sciences, technology, and arts.

Welfare: means that the Borobudur Temple Compounds is a source of life that brings happiness to humans. This World Heritage must be a resource for improving the quality of life (wellbeing), including promoting economic growth and independence, overcoming unemployment, and eliminating poverty.
I.4 Approach

Since the inscription of Borobudur Temple Compounds as a World Heritage in 1991, culture and society have developed and changed rapidly at the global, regional, and local levels. Of course, these changes present new challenges for conservation. These reflect a paradigm shift in viewing World Heritage and its conservation efforts which are also very complex and dynamic.

Therefore, the Borobudur Temple Compounds management can no longer rely entirely on the JICA Master Plan. Adjustments are needed that can accommodate various needs, interests and also address the increasing threat. This Management Plan is prepared by considering various approaches, namely:

**Multidisciplinary:** The complexity of the problem and the many needs for the preservation of the Borobudur Temple Compounds requires support from various fields of science, be it engineering, nature, as well as social and cultural sciences. The management and preservation of this World Heritage does not only focus on temple buildings but also includes the cultural landscape in the surrounding area, which consists of the natural and cultural environment of the community, including the rural atmosphere, traditions, and culture, land and agricultural activities, forests, archaeological sites, and scenery view from Borobudur to the surrounding mountains.

The Borobudur Temple Compounds is in a multi-hazard disaster area that requires comprehensive and holistic disaster management. Therefore, preparing this Management Plan pays close attention to the results of recent studies from various fields of science.

**Multisector:** So far, the management of the Borobudur Temple Compounds has been carried out by various sectors both independently and in collaboration, including the socio-cultural, economic, defense, regional space, agriculture, and public works sectors. These sectors are under several ministries/agencies and agencies at the provincial, district, and village levels. Thus, to compile this Management Plan, efforts have been made to communicate well between sectors to jointly solve various problems and map the needs needed to manage this World Heritage. This Management Plan is prepared based on the harmonization results and agreements from these various sectors.

**Participatory:** The process of managing and preserving the Borobudur Temple Compounds requires good cooperation between all parties. During developing the Management Plan, many meetings were held to understand and agree on policies and programs to be implemented. Therefore, this Management Plan is the result of all parties’ work and is a form of their commitment to remain involved in the implementation and supervision of the management and preservation of this World Heritage area.
Legality: The base for preparation of this Management Plan is the latest regulations and other provisions concerning preserving and managing cultural heritage at the international, national, provincial, and district levels. In Indonesia itself, since 1991, there have been two changes to the law regarding preserving cultural heritage. What is currently in effect is the Law of the Republic of Indonesia No. 11 of 2010 concerning Cultural Heritage. Also, several new regulations related to the preservation of environmental and spatial resources have been enacted. All these legal products have an essential influence in determining policies for preserving and managing cultural heritage. Since 2008, the Borobudur Temple Compounds has been designated as a National Strategic Area, and in 2014 Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Temple Area and its Surroundings was enacted as an effort to protect and control spatial use. Therefore, this Management Plan is prepared using the latest legality principles.

New Paradigm: the changing world situation has brought about a paradigm shift in development, tourism, and preserving natural resources and the cultural environment, including cultural heritage. The world now increasingly understands the importance and urgency of preserving cultural heritage in the context of sustainable development. Likewise, tourism is now more developed towards tourism that does not destroy resources but instead participates in protecting resources, including cultural heritage. The world is increasingly aware that the protection of cultural heritage is not only to show evidence of the past but is a resource that should be able to improve the quality of life of the community. Therefore, the preservation of World Heritage focuses not only on physical heritage but also on its more expansive area, be it the cultural or natural environment. Any development that will be carried out needs to be avoided by its negative impacts through a mechanism for analyzing the impact of cultural heritage (Heritage Impact Assessment). All these new paradigms are essential considerations in formulating this Management Plan.

Lesson learned: This Management Plan is a revision of the previous management plan and has taken valuable lessons from implementing the JICA Master Plan. Guidelines and strategies that are still appropriate and effective will still be used, while those that are no longer relevant certainly need to be revised. The monitoring and decisions of the UNESCO WHC are also valuable lessons for identifying and finding solutions to various problems and improving the quality of this Management Plan.

Retrospective SOUV: In 2012, WHC UNESCO established a Retrospective Statement of Outstanding Universal Value (SOUV) for the Borobudur Temple Compounds. The defined statements have brought about changes in attributes that need to be preserved. Therefore, this Management Plan has been prepared based on the new SOUV.
1.5 Scope and Status

a. This Management Plan outlines the issues faced in managing the Borobudur Temple Compounds, which is limited to Borobudur Temple, Mendut Temple, and Pawon Temple sites as monuments and covers its cultural and natural landscapes. Those temples form a good cosmological and physical spatial unity in Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surroundings. Solutions in the form of management policies will be provided for each mapped issue,

b. This Management Plan will also serve as a reference for collaborative work between sectors, stakeholders, and the surrounding community to achieve better coordination and communication,

c. This Management Plan will be strengthened in legal status through a presidential regulation and will be evaluated every five years with adjustments to the latest changes occurring in the field.
Chapter 2

LOCATION AND SIGNIFICANCE
II.1 Location and Description

Borobudur Temple Compounds situated in the Kedu Basin, located right in the middle of Java Island, Indonesia. Mountains and hills surround this basin. There are Mount Merbabu and Mount Merapi, which are very active to the east of the basin, while along its southern side stretches a series of hills from the Menoreh Mountains from east to west. Mount Sumbing and Mount Sindoro seem to limit this basin on the west and northwest sides, continuing with Tidar Hill in the north. Meanwhile, Mount Andong and Mount Telomoyo are to the northeast of the basin.

Borobudur Temple Compounds as a World Heritage consists of three temples with a Buddhist background erected in a straight line from west to east. Borobudur Temple, the largest, is on the west side. To the east, there are the smallest Pawon Temple and the slightly larger Mendut Temple, respectively.

Between the Mendut and Pawon temples, there is a confluence of two large rivers: the Progo River and the Elo River, which are imagined to be the Ganges and Yamuna Rivers’ confluence, two sacred rivers in India. The coordinates of the three temples can be seen in the table below:

<table>
<thead>
<tr>
<th>Borobudur Temple Compounds</th>
<th>Latitude</th>
<th>Longitude</th>
<th>49 MT</th>
<th>UTM/MU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borobudur Temple</td>
<td>07°36’28”</td>
<td>110°12’13”</td>
<td>412178</td>
<td>9158971</td>
</tr>
<tr>
<td>Mendut Temple</td>
<td>07°36’15”</td>
<td>110°13’49”</td>
<td>415055</td>
<td>9159330</td>
</tr>
<tr>
<td>Pawon Temple</td>
<td>07°36’22”</td>
<td>110°13’10”</td>
<td>413903</td>
<td>9159169</td>
</tr>
</tbody>
</table>

Around the three temples, there are several other temples, both with Hindu and Buddhist backgrounds. The potential to find other hidden temples in the area is enormous. The existence of some temples shows that this area was a sacred area when the temples were founded.
Borobudur Temple is the largest temple with a floor plan measuring 123 M x 123 M, with a height of 37 M from the surrounding land surface. The stone volume in the temple, as much as 55,000 M³, is arranged on top of a natural hill. Vertically, this building consists of nine terraces and one large stupa building on it. The nine terraces can be divided into three parts, each representing the levels of the world in Buddhist cosmology, namely Kamadhatu (feet), Ruphadatu (square terraces), and Arupadhatu (circular terraces). At the foot of Kamadhatu, there are 160 Karmavibhangga relief panels covered by stones surrounding the temple’s foot. The Rupadhatu section consists of five terraces surrounded by a hallway. The hallway and balustrade walls (outer wall of the hallway) are carved a total of 1300 relief panels that tell stories in Buddhism and 1312 decorative panels. The stories carved in relief are Lalitavistara (biography of Buddha Sidharta), Jatakamala (Sidharta’s previous lives), Avadana (examples of actions performed by Bodhisattvas in previous lives), and Gandavyuha (the story of Sudhana seeking enlightenment).

In the Rupadhatu section, there are 432 Buddha statues placed in recesses on the five terraces. The number of statues on each terrace is different, namely Terrace I (bottom) 104 statues, Terrace II 104 statues, Terrace III 88 statues, Terrace IV 72 statues, and Terrace V 64 statues. The gestures of hands of statues are also different. In the eastern niche, the statue is in bhumisparsamudra gesture (touching the earth), in the southern niche is in varamudra gesture (teaching), in the western niche is in dhyanamudra gesture (samadi), and in the northern niche is in abhayamudra gesture (calming).

The Arupadhatu consists of three circular terraces. There is a stupa with holes in the walls on each terrace, and inside, there is a Buddha statue that has dharmacakramudra (turning the world) hand gesture. The Arupadhatu is getting narrow to the top, so the number of stupas in each terrace is getting smaller, namely the lower terrace of 32 stupas, the middle consist of 24 stupas, and the upper consist of 16 stupas. At the very top of the temple, there is a main stupa. This main stupa stands on a base in the form of a lotus flower with a diameter of approximately 10 M. Inside the main stupa, there is a hollow space.
Overall, Borobudur Temple has a stepped pyramid shape which is a common form of pre-Hindu-Buddhist buildings. The complete form of the temple is a unique blend of ancestor worship and the attainment of Nirvana for Buddhists. During the restoration of the Borobudur Temple from 1975 to 1982, researchers who dismantled the temple base discovered a very advanced technique in its era. The distribution of the temple’s weight was carried out in a calculated manner so that the natural and artificial hills could support the weight of the temple for more than a thousand years. Borobudur Temple is in an area prone to earthquakes.

Pawon Temple, which is located between Mendut Temple and Borobudur Temple, is the smallest. The plan measures 10 M x 10 M, with a height of 13.3 M from the ground. The shape of the Pawon temple is slender, with the temple base in a 1.5 M high base. At the foot of this temple, there are many ornaments such as flowers and vines. The top part is in the form of a stupa. In the temple room now, there are no statues, although experts suspect that at first there was a Bodhisattva statue.

The entrance to Pawon Temple faces west with steps leading to the door decorated with Makara, and on the doorway, there are Kala decorations. Below the relief, there is a relief of Kuvera in a standing position. Meanwhile, on the north and south walls, the same relief depicts Kinara and Kinari — a half-bird human flanking a Kalpataru tree in a vase. At the top was a pair of humans who were flying. Above the relief, two small windows function as ventilation with a relief of Kumuda in between.

Figure 4. Pawon Temple

Figure 5. Map of Pawon Temple showing the core and buffer zones.
Source: Borobudur Conservation Office (2020)
Mendut Temple, which is located at the easternmost of the three temples, has a basic plan of 28 M x 24 M. Architecturally, Mendut Temple is also divided into three parts: the legs, body, and roof. The base (foot) of the temple is relatively high, namely 3.7 M, and the entire height of the building is estimated to be around 26 AD. However, now most of the roof of the temple is no longer there. There is a 1 m high ledge and 2.48 m wide veranda on top of the temple platform. The entrance to the temple faces northwest. The fable reliefs are carved on the main door’s cheeks’ outer wall, while there are other reliefs on the entrance hall wall. On the temple body walls, there are carvings of divine figures of Buddhism and Kalpataru trees.

Inside the temple room, there are three large stone statues. The largest statue that reaches three meters high is the statue of Jina Sakyamuni. On the left and right, there is one smaller statue each, namely the Bodhisattva Vajrapani and Avalokitesvara statues. Under Jina Sakyamuni’s statue, on the statue’s base, there are carvings in the form of a wheel and two deer, which are reminiscent of when the Buddha first taught in Deer Park, Benares. The statues found in Mendut Temple are examples of exquisite and delicate sculptures.
II.2 Outstanding Universal Value and Attributes

Based on the Retrospective Statement of Outstanding Universal Value in 2012, the Borobudur Temple Compounds meets the following criteria (i), (ii), and (vi), which are as follow:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>Borobudur Temple Compounds with its stepped, unroofed pyramid consisting of ten superimposing terraces, crowned by a large bell-shaped dome is a harmonious marriage of stupas, temple and mountain that is a masterpiece of Buddhist architecture and monumental arts.</td>
</tr>
<tr>
<td>(ii)</td>
<td>Borobudur Temple Compounds is an outstanding example of Indonesia’s art and architecture from between the early 8th and late 9th centuries that exerted considerable influence on an architectural revival between the mid-13th and early 16th centuries.</td>
</tr>
<tr>
<td>(vi)</td>
<td>Laid out in the form of a lotus, the sacred flower of Buddha, Borobudur Temple Compounds is an exceptional reflection of a blending of the very central idea of indigenous ancestor worship and the Buddhist concept of attaining Nirvana. The ten mounting terraces of the entire structure correspond to the successive stages that the Bodhisattva has to achieve before attaining to Buddhahood.</td>
</tr>
</tbody>
</table>

Figure 8. Borobudur Temple is located in the middle of a landscape surrounded by the former ancient lake, like a lotus. Photo: Mishachal Munir (2011)

Figure 9. Agricultural activity near Borobudur Temple. Source: Borobudur Conservation Office (2021)
Referring to the entire contents of the Retrospective Statement of Outstanding Universal Value, the attributes of the Borobudur Temple Compounds can be formulated as follows:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute 1</td>
<td>The three Buildings of Borobudur Temple, Mendut Temple, and Pawon Temple, along with all its elements, namely form, material, terrace arrangement, relief, and stupa. These three temple buildings are protected in SP-1 of Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surroundings.</td>
</tr>
<tr>
<td>Attribute 2</td>
<td>Imaginary Corridor connecting Mendut Temple, Pawon Temple, and Borobudur Temple symbolizes attaining Nirvana. The Corridor, also known as the Borobudur - Pawon - Mendut super corridor, is protected in SP-1 of Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surroundings.</td>
</tr>
<tr>
<td>Attribute 3</td>
<td>Borobudur Cultural Landscape consists of elements of the natural environment and community culture, including rural atmosphere, traditions, agriculture, surrounding temples that have been discovered or not, and views from Borobudur to the surrounding mountains. These elements are historical settings for the Borobudur Temple Compound, protected in and SP-2 in Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surroundings.</td>
</tr>
<tr>
<td>Attribute 4</td>
<td>Traces of the Ancient Lake show that the Borobudur Temple Compounds is in a water environment like a lotus flower (Buddha’s sacred flower). The traces of this ancient lake are protected as a historical setting in Presidential Regulation Number 58 of 2014 concerning the Spatial Plan for the Borobudur Area and Its Surroundings.</td>
</tr>
<tr>
<td>Attribute 5</td>
<td>Elements of architecture and art in the Borobudur Temple Compounds, including spatial arrangement, stone arrangement, temple construction technology, work on the arrangement of a distinctive terraces, material selection, arrangement of statues position, water channel system (Jaladwara), sculpture, art of various ornamental, figurine art, and symbolic art. These elements are protected in SP-1 Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surroundings and preserved as inspiration in the present and future.</td>
</tr>
<tr>
<td>Attribute 6</td>
<td>Ability to integrate old and new cultural elements and multicultural or inclusive traits. This attribute is preserved through sustainable development policies and inclusive policies in using the Borobudur Temple Compounds for religion, research, education, tradition, tourism, and other interests.</td>
</tr>
</tbody>
</table>
Chapter 3

MANAGEMENT OBJECTIVE
The main objective of this management plan of the Borobudur Temple Compounds is to ensure the integrity and authenticity of the attributes listed before, both tangibles and intangibles. In order to achieve these main objectives, there are at least three aspects that are of more significant concern in the preparation of this management plan, namely (i) education, (ii) Welfare, and (iii) Management Organization. These three aspects must be emphasized because they are the core of the management objectives themselves, especially in dealing with the many problems in the Borobudur Temple Compounds. More detail below will be describing these three aspects.

### III.1 Educational Aspect

a. The aims of the management of the Borobudur Temple Compounds is to develop existing resources so that they can become a means of education and learning for the community and all humanity,

b. The purpose of management of the Borobudur Temple Compounds is to increase awareness of the balanced relationship between God-man-nature, human identity, human rights, and multiculturalism which are the values contained in the Borobudur Temple Compounds,

c. The direction of management of the Borobudur Temple Compounds is towards developing the area as a vehicle for the preservation of the nation’s history and culture,

d. The management of the Borobudur Temple Compounds must be able to develop the area as a learning center for the nation’s cultural values and science, technology, and art to improve the intelligence of the nation’s life and foster a sense of nationality,

e. The management of the Borobudur Temple Compounds must be able to provide benefits for improving the quality of education of the local community,

f. The management of the Borobudur Temple Compounds must be able to present best the important values contained in existing cultural resources so that it can become a means of education for the community and visitors,

g. The Borobudur Temple Compounds management must create a safe, orderly, and clean atmosphere in the area by maintaining polite behavior from the community, visitors, and managers,

h. The management of the Borobudur Temple Compounds must include visitor arrangements in order to provide education to visitors and preserve existing resources,

i. To develop Borobudur Temple Compounds management in becoming an example (best practice) of proper management based on equality by paying attention to local wisdom.
III.2 Welfare Aspect

a. Borobudur Temple Compounds management is carrying an integrated manner. It aims primarily to preserve nature, the environment, and various existing resources to improve the community’s welfare,

b. The management of the Borobudur Temple Compounds must be able to improve the welfare of the community by: (i) improving people’s living standards, (ii) promoting economic growth and independence, (iii) overcoming unemployment, and (iv) reducing poverty,

c. The management of the Borobudur Temple Compounds as much as possible contributes to an increase in state revenue,

d. The management of the Borobudur Temple Compounds must be used to strengthen national identity and improve the Indonesian nation’s image in the eyes of the world,

e. The management of the Borobudur Temple Compounds must be able to improve the quality of Indonesian culture,

f. The management of the Borobudur Temple Compounds must be used to empower the local community.

Figure 10. A man dancing in front of a Balkondes
Source: Peta Industri Kreatif dan Kawasan Cagar Budaya Borobudur (2019)
a. Management of the Borobudur Temple Compounds can ensure integration between sectors, regions, central and local governments, and stakeholders.

b. The management of the Borobudur Temple Compounds is carried out in a professional, transparent, accountable manner and involves community participation from the planning, implementation, monitoring, and evaluation processes, and the development of area functions.

c. The management of the Borobudur Temple Compounds can guarantee the protection of strategic locations in maintaining the function and carrying capacity of the environment and having a role in preserving cultural assets.

d. The management of the Borobudur Temple Compounds must pay attention to the cultural, social, and religious aspects of the local community.

e. The management of the Borobudur Temple Compounds must pay attention to the local community’s priority rights to become workers in the management institution according to their abilities and levels of education.

f. The Borobudur Temple Compounds management can organize, supervise, and control tourism activities to prevent and overcome various negative impacts in the broader community.

g. The Borobudur Temple Compounds Management Body must consist of the following elements: stakeholder forums, executors, supervisors (auditors), and technical units.

h. The Borobudur Temple Compounds Management Body must at least have units that handle: (i) community development and empowerment, (ii) resource conservation, (iii) research and education, (iv) administration and finance, and (v) promotion and fundraising.
Chapter 4

LEGAL PROTECTION
The Borobudur Temple compounds was designated and protected as a World Heritage through:

a. UNESCO Convention in 1972 Concerning the Protection of the World Cultural and Natural Heritage and strengthened by Presidential Decree No. 26 of 1989, which ratified the Convention,

b. Decision of the UNESCO World Heritage Committee number SC-91 / CONF.002 / 15 on 12 December 1991 regarding the inclusion of the Borobudur Temple Compounds into World Heritage Sites number C 592,


Documentations of the restoration program at the Borobudur Temple Compounds (1973-1983), in Borobudur Conservation Office, inscribed as Memory of the World in 2017. This inscription further strengthens the importance of the Borobudur Temple Compounds, which needs to be appreciated as monuments and a site. Conservation activities have been going on for a long time. They can be a source of knowledge and inspiration for the general public and academics and practitioners in related fields.
IV.2 National Level of Protection

a. Law of the Republic of Indonesia Number 24 of 2007 concerning Disaster Management

This Law contains introductory provisions in the context of disaster management which include parties who are responsible for and have authority in disaster management, community rights in its implementation, and also the stages covering pre-disaster, during emergency response, and post-disaster. This regulation is relevant as a reference for the Management Plan because the location of Borobudur Temple Compounds is in an area prone to disasters, including earthquakes, volcanic eruptions, and fires.

b. Law of the Republic of Indonesia Number 41 of 2009 concerning Protection of Sustainable Food Crops Farmland

This regulation is an instrument to guarantee food as every citizen’s fundamental right so that the state is obliged to guarantee food independence, security, and sovereignty. Considering population growth and economic development, the use of agricultural resources requires sustainable protection of agricultural land to be as helpful as possible for the people’s welfare. This rule is relevant for the management of the Borobudur Temple Compounds because of the nature of the area, which also includes landscapes that have agricultural land managed by the local community.

“...the management of cultural heritage...must not conflict with the interests of the community and social life...“
c. Law of the Republic of Indonesia Number 10 of 2009 concerning Tourism

This regulation contains guidelines for implementing tourism to achieve its goals, namely preserving nature, the environment, resources, and promoting culture. Therefore, the implementation of tourism must have principles, among others, to uphold cultural diversity, local wisdom, provide benefits for the welfare of the people, and preserve nature and the environment. This regulation is relevant for the management of the Borobudur Temple Compounds to ensure that the tourism policies taken do not conflict with the primary objective, namely the protection of the site and the area as a whole.

d. Law of the Republic of Indonesia Number 11 of 2010 concerning Cultural Heritage

This regulation controls the authorization, ownership, and management of Cultural Heritage in Indonesia. It was also stated that the management of cultural heritage, which the government facilitates, must not conflict with the interests of the community and social life and be carried out by a management body consisting of various elements of society. Until now, the Borobudur Temple Compounds does not yet have a management body, and its formation must be carried out immediately to fulfill the mandate of this law.

e. Law of the Republic of Indonesia Number 2 of 2012 concerning Land Acquisition in Public Interest

This regulation guarantees the implementation of development for the public interest in the form of land acquisition which is carried out by prioritizing the principles of humanity, democracy, and justice. This regulation also explains that land acquisition for the public interest must pay attention to the balance between the interests of development and the community's interests and be carried out by providing appropriate and fair compensation. This rule is relevant in the management of the Borobudur Temple Compounds because it relates to the provision of land for public interests related to the functions and objectives of managing the area itself, namely as a Cultural Heritage site and tourist destination,
f. Law of the Republic of Indonesia Number 23 of 2014 concerning Regional Government

This regulation was issued to clarify the administration of local government. It is hoped that local governments will become more responsive, accountable, transparent, and efficient. This regulation also regulates the formation of local governments to suit the conditions of their respective regions better. Also, it regulates the relationship between the central government and local governments in the system of the Unitary State of the Republic of Indonesia.

g. Law of the Republic of Indonesia Number 5 of 2017 concerning the Advancement of Culture

The purpose and objective of this regulation is to realize the ideals of the nation's founder so that Indonesia becomes a nation with a cultural personality, economically independent, and politically sovereign society. This rule is relevant for managing the Borobudur Temple Compounds because the management of this area must prioritize community participation and not only focus on monuments, buildings, and physical infrastructure. The community must be involved in the process.

h. Law of the Republic of Indonesia Number 11 of 2020 concerning Job Creation

This regulation aims to create jobs and increase foreign investment in the country by reducing business permits and land acquisition requirements. The Borobudur Temple Compounds is a National Strategic Area with much potential for investment and business operations that have the opportunity to give rise to many land acquisition practices, for example, for the development of tourism supporting infrastructure. Therefore, this rule must be examined with other prevailing laws and regulations in order to maintain the preservation of the natural and cultural landscape in the Borobudur Temple Compounds.

This government regulation provides directions in the procedures for ownership, control, and efforts to bring cultural heritage objects outside the Republic of Indonesia's territory. This government regulation also regulates the implementation of their utilization while still paying attention to the provisions for preserving cultural heritage objects. Although Law of the Republic of Indonesia Number 5 of 1992 has been replaced with Law of the Republic of Indonesia Number 11 of 2010, this Government Regulation remains in effect because it does not conflict with new laws and regulations.

j. Government Regulation Number 13 of 2017 concerning Amendments to Government Regulation Number 26 of 2008 concerning National Territorial Spatial Planning

Appendix X Government Regulation Number 26 of 2008 concerning National Spatial Planning has designated Borobudur Temple as a National Strategic Area from a socio-cultural perspective. Then in Government Regulation Number 13 of 2017 concerning Amendments to Government Regulation Number 26 of 2008 concerning National Spatial Planning Article 1 number 38 mandates that the National Strategic Area Spatial Plan is regulated in a Presidential Regulation. As a follow-up, in 2014, the RTR for the KSN of Borobudur Temple was made legal through Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surroundings (see explanation in section IV.4 point c).
IV.3 Provincial and Regency Level of Protection

a. Regional Regulation Number 6 of 2010 concerning Regional Spatial Planning of Central Java Province for 2009-2029

This regulation was made as a form of implementation of Law Number 26 of 2007 concerning Spatial Planning. In this regulation, the Borobudur Area is included as a Strategic Area from social and cultural interests. Following this regulation, the development strategy of the Borobudur Area must include: increasing people's love for cultural values that reflect a virtuous national identity, implementing the application of national cultural values in people's lives, and preserving the nation's cultural heritage sites.

b. Regional Regulation Number 10 of 2013 concerning Preservation and Management of Cultural Heritage Sites in Central Java Province

This regulation emphasizes the importance of local governments' role in planning, implementing, and monitoring in the preservation and management of cultural heritage. So far, the local government's role is still lacking or limited in managing the Borobudur Temple Compounds. Therefore, in proposing the establishment of a Management Body, local governments will be involved so that the preservation and management of cultural heritage can fulfill the interests of the local community and form synergies with other policies in the area related to the preservation of cultural heritage itself, for example, policies regarding tourism.

c. Regional Regulation Number 5 of 2011 concerning Magelang Regency Spatial Planning 2010-2030

This regulation discusses spatial planning in Magelang Regency, which is the location of the Borobudur Temple Compounds. Spatial planning aims to realize the district space as a center for agribusiness based on agriculture, tourism, and industry that prioritizes the utilization of local potential through the synergy of rural-urban development, which considers the preservation of the function of the area as a water catchment area. This regulation is relevant for the management of the Borobudur Temple Compounds primarily to protect the natural and cultural landscape's character.

“...local governments will be involved so that the preservation and management of cultural heritage can fulfill the interests of the local community...“
IV.4 Site Specific Protection

a. JICA Master Plan 1979

As mentioned in the previous section, when the Borobudur Temple Compounds was proposed as a World Heritage, the Republic of Indonesia submitted the Masterplan for Borobudur Prambanan National Archaeological Park 1979, which was compiled by the Japan International Cooperation Agency (JICA) as a management plan. Several recommendations put forward in the JICA Master Plan are as follows:

(i) An archaeological monument does not stand alone, but covers its surroundings;

(ii) Development of parks integrated with the empowerment of local communities and settlements; and

(iii) Archaeological parks are developed for conservation, research, study, education, and tourist attraction facilities.

b. Presidential Decree No.1 of 1992 concerning Management of Borobudur Temple Tourism Park and Prambanan Temple Tourism Park as well as Environmental Control of the Area

One year after the Borobudur Temple Compounds was declared a World Heritage, the President of the Republic of Indonesia issued Presidential Decree No.1 of 1992 concerning Management of the Borobudur Temple Tourism Park and Prambanan Temple Tourism Park and Environmental Control of the Area. In essence, this decree regulates the authority to manage the zones within the Borobudur Temple Compounds as determined by the JICA Master Plan.

However, this Presidential Decree does not regulate the distribution of income from management profits. The income for temple maintenance is determined more based on allocation of funds and not needs. In other words, commercial use of the Borobudur Temple Compounds takes precedence over protection. Based on legal review, this Presidential Decree is no longer enforceable because it has expired. This is due to its legal basis, namely the Monumenten Ordonantie (Staatsblad 1931 Number 238)* is no longer valid and has been replaced by Law of the Republic of Indonesia Number 11 of 2010 concerning Cultural Heritage.

* The Dutch East Indies government made legal rules to protect ancient objects or relics in the Dutch East Indies territory.
The zoning in the JICA Master Plan is as follows:

<table>
<thead>
<tr>
<th>Zone</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone-1</td>
<td>This zone is the core zone (Sanctuary Area). In this zone, efforts are made to protect and prevent damage to the physical environment of the archaeological site. Apart from the existing temple buildings, no new structures are allowed in this zone.</td>
</tr>
<tr>
<td>Zone-2</td>
<td>This zone is an archaeological tourist park zone (Archaeological Park Zone) and is intended for environmental protection areas of historical sites and park supporting facilities such as museums, office areas, parking lots, and limited trading places.</td>
</tr>
<tr>
<td>Zone-3</td>
<td>This zone is a zone for site protection and development control through the application of certain rules, particularly land use (Land Use Regulatory Zone). This zone is only designated for limited settlements, green lines, agricultural areas, rural areas, and special facilities established to support the preservation of temples, including Mendut and Pawon Temples.</td>
</tr>
<tr>
<td>Zone-4</td>
<td>This zone is a protection area for historical landscapes (Historical Scenery Preservation Zone) to prevent disturbing the authenticity of the landscape.</td>
</tr>
<tr>
<td>Zone-5</td>
<td>This zone is a protection zone for historical archaeological remains. This zone is also designated as an archaeological survey area to find hidden cultural heritage (National Archaeological Park Zone).</td>
</tr>
</tbody>
</table>

Figure 12. Zoning map of the Borobudur Temple Compounds according to the JICA Master Plan. Source: Borobudur Prambanan National Archaeological Park, JICA (1979)
The zone functions and division of authority regulated in the Presidential Decree No.1 of 1992 can be summarized in the following table:

<table>
<thead>
<tr>
<th>JICA MASTERPLAN</th>
<th>PRESIDENTIAL DECREE NUMBER 1 OF 1992</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Zone-1</strong></td>
<td><strong>ZONE</strong></td>
</tr>
<tr>
<td>Core zone (Sanctuary Area): zone of protection and</td>
<td>Zone I</td>
</tr>
<tr>
<td>prevention of physical damage to the temple. Not</td>
<td>Archaeological environment for the protection and maintenance of</td>
</tr>
<tr>
<td>allowed to build anything.</td>
<td>physical preservation of the temple</td>
</tr>
<tr>
<td></td>
<td>Borobudur Conservation Office</td>
</tr>
<tr>
<td><strong>Zone-2</strong></td>
<td><strong>ZONE</strong></td>
</tr>
<tr>
<td>Archaeological Park Zone: site environmental</td>
<td>Zone II</td>
</tr>
<tr>
<td>protection zone and supporting facilities such as</td>
<td>The area around Zone I of each temple is designated for tourism,</td>
</tr>
<tr>
<td>parks, museums, offices, parking lots, and limited</td>
<td>research, culture, and environmental preservation of the temple.</td>
</tr>
<tr>
<td>commercial areas.</td>
<td>PT Taman Wisata Candi Borobudur dan Prambanan (PT TWC).</td>
</tr>
<tr>
<td><strong>Zone-3</strong></td>
<td><strong>ZONE</strong></td>
</tr>
<tr>
<td>Land Use Regulation Zone: site environmental</td>
<td>Zone III</td>
</tr>
<tr>
<td>protection zone and control with land use rules for</td>
<td>Areas outside Zone II of each temple. The area is designated for</td>
</tr>
<tr>
<td>limited settlements, green lines, agriculture,</td>
<td>limited settlements, green lines, agriculture, or other facilities in</td>
</tr>
<tr>
<td>rural areas, and temple preservation facilities.</td>
<td>order to create harmony and balance and to support the preservation of</td>
</tr>
<tr>
<td></td>
<td>temples and the function of tourist parks in particular.</td>
</tr>
<tr>
<td></td>
<td>Local Government of Magelang Regency</td>
</tr>
<tr>
<td><strong>Zone-4</strong></td>
<td><strong>ZONE</strong></td>
</tr>
<tr>
<td>Historical Scenery Preservation Zone: cultural</td>
<td>No party has been appointed yet, so it is unprotected and cannot be</td>
</tr>
<tr>
<td>landscape protection zone.</td>
<td>controlled</td>
</tr>
<tr>
<td></td>
<td>Not mentioned</td>
</tr>
<tr>
<td><strong>Zone-5</strong></td>
<td><strong>ZONE</strong></td>
</tr>
<tr>
<td>National Archaeological Park Zone: protection and</td>
<td>No party has been appointed yet, so it is unprotected and cannot be</td>
</tr>
<tr>
<td>survey area for archaeological remains.</td>
<td>controlled</td>
</tr>
<tr>
<td></td>
<td>Not mentioned</td>
</tr>
</tbody>
</table>
c. Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surroundings

This regulation was made to improve the zoning system of the JICA Master Plan by making adjustments to the conditions and developments that occurred. This regulation serves as a guideline in controlling spatial use or area development activities per hamlet based on the Outstanding Universal Value of the Borobudur Temple Compounds. The main principles of regulation in this spatial plan include:

1) protection of the sites of Borobudur Temple, Pawon Temple and Mendut Temple;
2) protection of the distribution of unexplored historical and archaeological sites; and
3) controlling the viewpoint from the top of Borobudur Temple towards the mountains that surround the Borobudur Temple Compounds.

The zoning in the JICA Master Plan is combined into two main zones to adjust to the latest conditions, namely Preservation Area 1 (PA-1) and Preservation Area 2 (PA-2). The preservation provisions in PA-1 and PA-2 are explained respectively in articles 36 and article 38.

The division of PA-1 and PA-2 is the main guideline in preparing the Spatial Plan for the Borobudur Area and its Surroundings. The area's space is divided into spatial patterns and spatial structure plans so that there are zoning regulations directives in each hamlet and an indication of the main program for regional development that is in line with the principles of the Outstanding Universal Value of the Borobudur Temple Compounds.

Figure 13. Map of the Spatial Pattern Plan for Borobudur and Its Surroundings. Source: Ministry of Public Works (2014)
Preservation Area 1 (PA-1)
The main preservation areas are cultural heritage sites that urgently control the growth of the built-up areas in order to preserve the Borobudur, Pawon, and Mendut temples.

The provisions in this zone are divided into three levels of preservation:
1. Level I, done without change and by maintaining the original object.
2. Level II, changes can be made very limited to development or development activities that do not physically disturb the Cultural Conservation Site and the surrounding ecosystem.
3. Level III, can be carried out with limited changes to development or development activities that do not physically disturb the Cultural Conservation Site and the surrounding ecosystem.

Preservation Area 2 (PA-2)
The buffer zone serves as a protection area for the distribution of undeveloped sites by controlling the growth of the built-up area in order to maintain the potential distribution of untapped cultural heritage and visibility.

Development arrangements in this zone must pay attention to several things, including:
1. Scenery view from Borobudur Temple;
2. Protection of the distribution of unexplored historical and archaeological sites;
3. Control over the conversion of agricultural land functions;
4. Arrangement of buildings and environment; and
5. Control of watershed areas and their tributaries.
d. Minister of Education and Culture Decree Number 286/M/2014 concerning Borobudur Geographic Spatial Unit

In 2014, the Minister of Education and Culture issued this decree which states that within the geographic spatial unit of Borobudur, several sites and locations must be preserved in addition to Borobudur, Mendut, and Pawon temples. Other sites and locations referred to include: Candi Ngawen site, Yoni Brongsongan site, Dipan Temple site, Bowongan Temple site, Samberan Temple site, Yoni site in Plandi, and Bojong Dutch Cemetery in Mendut.

e. Minister of Education and Culture Regulation Number 29 of 2015 concerning the Organization and Administration of the Borobudur Conservation Office

This regulation describes the position, duties, and functions of the Borobudur Conservation Office. According to this regulation, Borobudur Conservation Office is the technical implementation unit of the Ministry of Education and Culture in the conservation and preservation of Borobudur Temple, responsible to the Director-General of Culture. Borobudur Conservation Office's task is to carry out the conservation and preservation of Borobudur Temple and the Borobudur cultural heritage area, including conducting studies, safeguarding, maintaining and restoring, developing, and utilizing, documenting, and implementing partnerships at Borobudur Temple, Mendut Temple, and Pawon Temple.

f. Standard Operational Procedure of Borobudur Conservation Office

The Borobudur Conservation Office has established and followed several standard operating procedures (SOP) in carrying out its duties. Among others are:

- Maintenance SOP,
- Disaster Mitigation SOP,
- Utilization SOP.
Chapter 5

FACTORS AFFECTING PROPERTY

BOROBUDUR TEMPLE COMPOUNDS MANAGEMENT PLAN
V.1 Spatial and Development Pressure

The Borobudur Temple Compounds is an area that is vulnerable to residential development, tourism supporting infrastructure, and other massive and large-scale commercial activities. The Borobudur Temple Compounds’ spatial arrangement should be endeavored to maintain the surrounding area’s natural beauty surrounding mountains, hills, rivers, forests, rice fields, and rural areas. The beauty and harmony of the cultural landscape is one of the Borobudur Temple Compounds’ attributes as a World Heritage. Not only that, for Buddhists, the atmosphere of peace and calm arising from the beauty and harmony of the cultural landscape is very desirable for pilgrims when they perform pre-maximalism to the top of Borobudur Temple. At this peak, pilgrims see the green panorama as far as the eye can see, consisting of hills, mountains, and rivers that symbolize nirvana. Therefore, this landscape must be maintained because it is an attribute that supports the criteria (vi).

However, in reality, there are various problems related to spatial planning and development, such as:

a. There has been a change in spatial use that is not following Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surroundings, namely 8.11 HA in the PA-1 and 86.803 HA in the PA-2 area*. Based on the provisional evaluation results, the suitability level of the use of spatial structures in the Borobudur Temple Compounds shows a value of 75%, while the use of spatial patterns is at a value of 40%. The achievement of this mismatch in spatial use is due to the inadequate application of Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surroundings,

*Ministry of Agrarian Affairs and Spatial Planning, 2019

Figure 15. Bukit Dagi is now used as a hotel with pavilions. This hill is supposed to be a buffer zone to ensure the preservation of Borobudur Temple.
Source: Borobudur Conservation Office (2020)
a. Transfer of land ownership status has also occurred, resulting in significant changes in land use due to the tendency of new owners to change the function of agricultural land into developed land,

b. The development of infrastructure, private and commercial buildings in this area has caused many disturbances to Borobudur Temple’s scenery towards Mount Sindoro, Mount Telomoyo, Mount Andong, Mount Merbabu, Mount Merapi, Menoreh Hills, Mount Ayamayam, Tidar Hill, and Mount Sumbing. Evidence of violations of this provision is found along the Palbapang corridor in the form of an out of context building architectural design, the Tower Based Transmission System (BTS), as seen from the top of Borobudur Temple, the height of commercial buildings that exceeds the provisions, and inappropriate advertising display (billboards). It also threatens the aesthetics of the area because it covers the panoramic views of rice fields and mountains,

c. In residential areas, the community still does not understand new construction or renovation of old buildings that should be built with the nuances of traditional Javanese architecture, not buildings with modern/contemporary architecture, especially those on the main road corridor of PA-1. Repairing the facade of the house in the Mendut-Pawon-Borobudur pilgrimage corridor dominated by red exposed bricks is not appropriate because it creates an impression of "Majapahitan" style,

d. Deforestation and the felling of trees on the slopes of Menoreh Hills reduce the function of water catchment. Besides, there are often severe droughts in the dry season, and many critical lands are prone to landslides,

e. The absence of awareness and understanding of the importance of maintaining the Outstanding Universal Value of the Borobudur Temple Compounds has reduced former ancient lakes areas. Some of these areas have now turned into built-up areas even though the rice fields of the former ancient lake are part of the historical setting of Borobudur Temple’s location.
As reflected in the Statement of Outstanding Universal Value of Borobudur Temple Compounds, this World Heritage attribute consists of the temple building and the cultural landscape around it, which is the historical setting of its existence. These attributes can be both material and intangible, including the existing archaeological remains, the rural atmosphere, and the people's traditions. The temples of Borobudur, Pawon, and Mendut are made of andesite stones and arranged with the technique of arranging stones that are interconnected to become the most prominent attribute of objects.

The three temples—connected by an imaginary corridor from west to east—are so beautifully carved that they are recognized as masterpieces of Buddhist architecture and art in the 8th and 9th centuries in Java. These three temples have undergone significant renovations and are continuously maintained and protected with various government efforts so that they can be passed on to future generations. In addition to the physical temple, maintenance efforts are also made on the cultural landscape, the historical setting, namely the surrounding environment, accommodating views towards the mountains as a complete unit with the temple.

However, various efforts to maintain the property attributes of the Borobudur Temple Compounds have also encountered a number of obstacles, which can be mapped as follows:

a. Many environmental factors can damage andesite, such as moss, mold, algae, lichen, wind, water, temperature, and humidity. If these factors are not appropriately managed, the process of stone damage can run quickly and impact the reliefs' condition and the structure of the temple as a whole,

b. Volcanic eruptions that often occur can cause the temple stones to suffer damage due to the mountain ash's acidity that covers the temples. Even though efforts to protect have been carried out, more comprehensive efforts are still needed to overcome them,

c. The large number of visitors resulted in inadequate surveillance from the insufficient number of security personnel. This problem can cause some inappropriate behavior from visitors such as vandalism and littering,
d. Intensive contact between the visitor's footwear with the temple stones causes stone's deterioration at several points on the temple, such as stairs and hallways,

e. The decline in environmental quality in Borobudur Temple Compounds' surrounding area affects the decline in the cultural landscape quality,

f. So far, the government's attention has only focused on maintaining tangible things and has not focused too much on intangibles, even though both are equally important.
V.3 Visitation and Tourism

Based on data from the Central Statistics Office of Magelang Regency, in 2019, there were 4 million domestic and foreign tourists visiting Borobudur Temple. This number is expected to increase due to the high exposure on social media of the beauty of Borobudur Temple and the opening of new access to Magelang, namely the new airport in Kulon Progo. The increase in the number of tourists without proper management raises concerns about the temple’s condition and its environment.

Apart from being for tourism purposes, the Borobudur Temple Compounds — especially the three temples and their imaginary corridors — also plays host to various religious, social, and commercial activities such as music concerts, Vesak celebrations, Borobudur Marathon, and other community activities. The implementation of these activities should also be arranged, especially for the activity stage, event security, and accessibility. Moreover, organizing social events at Borobudur Temple invites merchants’ entry of goods and services, which needs to be regulated.

Based on the facts listed above, problems that occur related to visits and tourism in the Borobudur Temple Compounds are as follows:

1. **The number of tourists exceeds the capacity**, especially at Borobudur Temple when visitors directly go up to the temple building. This situation puts a strain on the temple structure and threatens its physical condition. The average number of visits is 10,000 people per day and increases to 50,000 on holidays. About 30% of the number of visitors are teenagers whose behavior is less orderly. Most visitors who go up to the temple go straight to the top without going around each terraces. Research conducted by the Borobudur Conservation Office in 2009 resulted that the Borobudur Temple has an ideal capacity (with a recovery factor) of 128 people. This finding means that, at the same time, ideally, the temple building is only worthy of being visited by 128 people so that tourists can enjoy the majestic and beauty of Borobudur Temple and comfortably reading and examining the reliefs carved on the walls,
The capacity without a recovery factor is 1,391 people. However, this condition will certainly cause inconvenience for visitors due to overcrowding, and of course, it also has the potential to threaten the physical temple in the long term. The same problem also applies to the Borobudur Temple courtyard. Ideally and comfortably, the temple courtyard only has a capacity of 523 people (with a recovery factor) and 5,670 people (without a recovery factor).

Meanwhile, the buffer zone or Zone 2 (JICA Master Plan version) has a capacity of 10,308 people (with a recovery factor) and 111,666 people (without a recovery factor). This finding illustrates that Borobudur Temple, the temple grounds, and gardens have limited capacity to provide comfort to visitors and ensure temple protection. The application of visitor restrictions has not been implemented because of the interest in maximizing revenue from Borobudur Temple as a tourist attraction by the Tourism Park manager (Zone 2).

The increase in the number of visitors from time to time, which exceeds the limited carrying capacity, has been proven to reduce the state of conservation of Borobudur Temple as a World Heritage. On the other hand, Mendut and Pawon Temples, as part of the Borobudur Temple Compounds, have not been visited by many people. Based on the 2018 Central Java Province Tourism statistical data, the number of visitors to Mendut and Pawon Temples in 1 day is approximately 259 people or has not exceeded their carrying capacity.

b. **There is visitor behavior that damages the maintenance of the temple.** For example, there are still many visitors who sit or lean against the temple walls. There is also damage in the form of erosion of the temple stones caused by friction on visitors' shoes. Until now, littering is still found in the temple building. A study compiled by the Borobudur Conservation Center in 2009 noted differences in the behavior of foreign and domestic tourists. Foreign visitors tend to walk around the temple's various levels, seeing the relief gradually from the bottom up in an orderly manner. In contrast, domestic tourists tend to go straight up.
This information is reinforced by a visitor survey conducted in the 2018 during Integrated Tourism Master Plan (ITMP) study; 64% of tourists tend to go straight up and spend a few minutes between the stupas. The circulation for each layer of the temple is regulated with directions near the entrance to the temple gate. However, visitors do not pay attention to these instructions to use their direction patterns. As a result, visitors walk straight to the top of the temple, 

c. Inadequate interpretation and presentation of Outstanding Universal Values causes a lack of understanding by visitors. The name that is better known by the public, especially domestic visitors, is Borobudur Temple Tourism Park, not a World Heritage site. Generally, visitors' perceptions about Borobudur Temple are tourist attractions. This image is strengthened by www.borobudurpark.com, which further promotes it as a tourist spot, not as a World Heritage site that should be properly appreciated. Besides, the available interpretation facilities are also not communicative and engaging in conveying the Outstanding Universal Value, which is the basis for the inscription of the World Heritage of the Borobudur Temple Compounds.

d. Infrastructure related to transportation facilities and is inadequate. Large numbers of tourist visits have caused transportation problems such as road congestion, limited parking areas, and air pollution, which can harm the temple and its people.

e. Poor management of hawkers. The aggressive and disorderly behavior of hawkers in offering their sales creates a frenetic atmosphere and disturbs visitors' comfort. Only a few of the goods sold are local products of the Borobudur community. Most of them are imported goods and are not unique and of high quality. From social studies, the high interest of the community to become hawkers is partly due to the limited capacity to participate as human tourism resources, within the scope of the formal economic sector, as well as the underdevelopment of production centers based on local resources that can absorb labor and enable hawkers to switch to production activities. Besides, visitors are still concentrated at one point, namely in the Borobudur Temple Tourism Park area, adding to the concentration of hawkers who have to compete tightly,
f. Uncontrolled development of tourism facilities. In the form of amenities and accommodation for visitors, the need for tourism facilities has not been adequately accommodated. These facilities are generally provided by the local community, such as inns, hotels, restaurants, food stalls, grocery stores, transit places, and public toilets, especially for group visitors. Various facilities are mainly packed in the area around the entrance to the Borobudur Temple Tourism Park. Generally, the facilities' quality and design are not sufficient and in tune with the sacred atmosphere and majestic of Borobudur Temple as a world heritage.

g. The existence of three different management agencies in the Borobudur Temple Compounds makes it difficult for good management. This situation is because the three managers are under different ministries with different missions. The Borobudur Conservation Office manages the Core Zone under the Ministry of Education and Culture with a protection mission; the Buffer Zone is managed by PT Taman Wisata Candi Borobudur Prambanan and Ratu Boko under the Ministry of State-Owned Enterprises (BUMN) with a mission to gain as much profit as possible; and in outside the Core Zone and Buffer Zone are managed by the Regional Government of Magelang Regency under the Ministry of Home Affairs. As a result, the policies that are taken are often conflicting. Also, there is no clarity regarding the tourism profits allocated for protection, so what ultimately happens is that tourism activities do not contribute to protection.
Several regulations control the Borobudur Temple Compounds, both at the national, provincial, and district levels. However, some of these regulations are not in harmony and even conflict with one another. This situation has caused confusion and uncertainty in its implementation. Also, the implementation of a regulation is not followed by the enforcement of existing provisions, partly because of the unclear distribution of authority. Some of the problems that cause this confusion include the following:

a. The Borobudur Temple Compounds is designated as a National Strategic Area for the socio-cultural sector and in the tourism sector. This decision often creates a conflict of interest in its use. Although this regulation also states that tourism should not interfere with the protection function, in reality, this provision is often violated,

b. The spatial use that has been regulated in Presidential Regulation Number 58 of 2014 has not been effectively enforced due to lack of socialization and has not been harmonized with other regulations under it. Besides, provisions are still needed that can provide guidance and guidelines for its implementation,

c. Strict supervision and law enforcement efforts have not been running optimally. This condition is due, among others, because (a) there has been no harmonization or amendment with the Regional Regulation (Perda) of Magelang Regency Number 5 of 2011 concerning the 2010-2030 Magelang Regency Spatial Planning; (b) the mechanism for enforcing control over space utilization has not been agreed upon; (c) the absence of a master plan for the preservation of the Borobudur area as mandated by Presidential Regulation Number 58 of 2014; (d) attention to the sites in the Borobudur Temple Compounds is still minimal so that the development carried out does not consider the accessibility and security of the existing sites,

d. Presidential Decree No.1 of 1992, which no longer has a solid legal basis, is still used to manage this World Heritage area. On the other hand, the provisions in Law of the Republic of Indonesia Number 11 of 2010 concerning Cultural Heritage, which mandates a Management Body, have not been realized.
The complexity of the legal regulations for managing the Borobudur Temple Compounds has made the coordination mechanism between stakeholders less effective. For that, it is necessary to conduct a review of legal regulations, including:

1) Presidential Decree Number 1 of 1992 concerning Management of the Borobudur Temple Tourism Park and Prambanan Temple Tourism Park as well as controlling the area’s environment,

2) Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and its surroundings,

3) Presidential Regulation Number 46 of 2017 concerning the Borobudur Tourism Authority Agency

The master plan prepared by JICA needs to be revised and adjusted to the latest developments. This Management Plan can be used as the main alternative to replace the master plan.

The issue of legal regulations that arises is that there are overlapping rules in managing the Borobudur Temple Compounds, including legal rules related to spatial planning, preservation of cultural heritage, management, and tourism. As a World Heritage, WHC UNESCO also provides recommendations in its arrangement. Several plans are needed to solve the problem of overlapping legal regulations, such as:

1) Review of Presidential Regulation Number 58 of 2014 to suit current conditions, including clarifying the mapping boundaries of PA-1 and PA-2,

2) Compiling provincial regulations of the Province of D.I. Yogyakarta and of Central Java Province regarding areas included in the Borobudur Temple Compounds, especially those in the Menoreh Hills,

3) Review of Presidential Decree No. 1 of 1992,

4) Harmonization between tourism regulations on national, provincial, and regencies level,

5) Improved law enforcement,

6) Community outreach on regulations.
Managing Borobudur Temple Compounds is still complicated because there are many parties involved with different interests, lack of coordination, and overlapping authority. Therefore, the current management is deemed ineffective in protecting the Borobudur Temple Compounds as a World Heritage as mandated in the Operational Guidelines, particularly paragraphs 108 s.d. 118 (2019 edition). This complexity has attracted serious attention from the WHC UNESCO, which stated several decisions (i.e., 2003, 2004, 2005, 2006, and 2009). In the SOUV established in 2012, it also mentioned the need for an integrated management of the Borobudur Temple Compounds currently being undertaken by the Government of the Republic of Indonesia. Several problems related to management that can be identified are as follows:

a. Based on Presidential Decree No.1 of 1992, the Borobudur Temple Compounds is managed by at least three parties under three different ministries, namely the Borobudur Conservation Office (BKB) Ministry of Education and Culture; PT Taman Wisata Candi Borobudur, Prambanan, and Ratu Boko. (PT TWC) under the Ministry of State-Owned Companies; and the Regional Government of Magelang Regency under the Ministry of Home Affairs. Each of them carries its mission: the Borobudur Conservation Center (BKB) with a safeguarding mission, PT TWC with a profit-oriented mission, and the Regional Government of Magelang Regency mission to organize local government. Meanwhile, no community representatives were involved in this management,
b. There is an unfair redistribution of income from the utilization of this World Heritage among the parties in the current management system. On the one hand, Borobudur Conservation Office is the party that always incurs costs (cost-center) for preservation. On the other hand, PT TWC is the maximum profit beneficiary (profit-center). Meanwhile, there is no explicit obligation regarding the mechanism for allocating these benefits for protection efforts. The benefits of this tourism have not been felt by the community at large, although in recent years, efforts to empower the community have been carried out by three managers in their respective capacities,

c. The management of tourism which generates profits becomes dominant so that there is a tendency to develop various tourism facilities, and it is often carried out by ignoring the provisions already regulated in Presidential Regulation Number 58 of 2014,

d. The fundamental issue of the legality of Presidential Decree No.1 of 1992 also received attention from UNESCO, as stated in the 2007 decision. Based on the study, the Presidential Decree is no longer valid because a new regulation has replaced the legal basis used in drafting it,

e. Law of the Republic of Indonesia Number 11 of 2010 concerning Cultural Heritage, article 97 mandates a management body's establishment to manage the Cultural Conservation Area. This mandate also applies to the Borobudur Temple Compounds, strengthened by Presidential Regulation Number 58 of 2014 article 42. This regulation states that this area's management is carried out by the minister in charge of the cultural sector, related ministers, governors, regents, and other institutions/agencies according to their authority based on legislation. In the Law of the Republic of Indonesia Number 11 of 2010, it is also stated that the Management Body can consist of elements from the Government, Regional Government, the business world, and the community. However, until now, the Management Body has not been formed due to various obstacles.
The Borobudur Temple Compounds, located on an active fault and surrounded by Mount Merapi, Merbabu, Sindoro, and Sumbing, makes it vulnerable to potential natural disasters such as volcanic eruptions, earthquakes, landslides, and disasters due to human negligence such as fires. After the eruption of Mount Merapi in 2010, a Standard Operating Procedure (POS) regarding disaster mitigation was immediately developed along with a periodic monitoring mechanism so that site managers can act quickly and appropriately in a disaster situation. In the future, as a super-priority destination, the Borobudur Temple Compounds must also be prepared for global disasters such as pandemics and climate change. Based on the preceding, several disaster issues that can be identified are:

a. Shift in the position of temple elements due to active faults, earthquakes, and landslides,
b. Recurring landslides in Menoreh Hills threaten the preservation of the landscape as a unity of the Borobudur Temple Compounds,
c. The absence of a comprehensive Multi-Hazards Disaster Resilience Plan covering Disaster Risk Reduction, Disaster Preparedness, Contingency Plan, Pre-Disaster Recovery Plan and Business Continuity Plan for the scope of the Borobudur Temple Compounds,
d. The absence of an institution that becomes a bridge for partnerships between stakeholders in preparing, planning, and implementing disaster resilience.
Changes in spatial use and land use also significantly affect the Borobudur Temple Compounds’ environment's quality. Besides, the increase in tourism activity has led to the high development of supporting facilities and brings substantial environmental burdens to attention. Some of the things that become problems in this environmental issue are:

a. High levels of pollution; a lot of dust and trash that got into the crevices of the temple stone,
b. High levels of air pollution, noise and waste generated from tourism activities that are a burden to the environment,
c. Climate change which has an impact on the preservation of the temple and its elements (relief),
d. The decline in the quality of water availability (which is also a development impact) causes the carrying capacity of agriculture to decrease,
e. The decline in the quality of the rural atmosphere and the disruption of the cultural landscape of the Borobudur Temple Compounds,
f. Forest clearing in Menoreh has resulted in landslides, drought, and increased degraded land (which also creates disaster risks as described above).
It is the mandate of Law Number 11 of 2010 concerning Cultural Heritage which, among other things, mentions the importance of community participation and that the preservation of cultural heritage is aimed at the greatest possible prosperity of the people. However, the community’s conservation and welfare often do not go hand in hand and sometimes even create conflicts of interest. In managing the Borobudur Temple Compounds, several problems that arise can be identified as follows:

a. The lack of ownership of the community as stakeholders in the management of the Borobudur Temple Compounds as a world heritage because they feel that they are not much involved and benefit from managing this cultural heritage. The community also feels that they have been excluded from access to cultural heritage that was initially part of their life,
b. The policy for the development of the Borobudur Temple Compounds that has not been oriented towards improving the surrounding community’s quality of life has caused gaps.
c. People do not yet understand the importance of preserving the Borobudur Temple Compounds, so that their various activities do not pay attention to the preservation of this world heritage,
d. The large number of development activities in the Borobudur Temple Compounds are not carried out with sustainable development and community empowerment principles. The community does not feel the impact of welfare and improving their quality of life,
e. The natural increase in population and the number of migrants have resulted in increased competition for access to limited resources and an increased need for job opportunities that are not available. It has generally resulted in increasing overcrowding of the local population, resulting in land ownership transfer and ultimately encouraging land-use change,
f. Development policies are often set top-down without involving participation and taking into account the interests of the community. As a result, people feel left out, and development is considered not for them but for other parties' needs (tourism) while their needs are not being met. It has led to apathy in various conservation activities,
g. The rise of tourism activities has indeed opened up more various job opportunities for the community. However, on the other hand, these opportunities have made most of the younger generation reluctant to continue their parents’ farming profession. Working in the tourism sector is considered to be easier to earn income.
Chapter 6

OBJECTIVES, POLICIES, AND STRATEGIES
VI.1 Spatial and Development Pressure

The vision of the Management Plan to create a sustainable, educating, and prosperous Borobudur Temple Compounds will be pursued by implementing various policies based on a more appropriate approach. The approach that has been practiced so far, which is proven to be more directed towards commercializing existing resources, must be changed to an experience economy approach based on the Outstanding Universal Value. Through this policy, it is hoped that the development and utilization will no longer exploit the Borobudur Temple Compounds but will be directed with the principle of maintaining integrity and authenticity, which will create a more impressive and quality visiting experience.

The atmosphere created by the authenticity and integrity of the Borobudur Temple Compounds’ entire property and the background of the cultural landscape will give a distinctive "sense of a place" with an enlightening educational nuance. The experiential economic approach will increasingly provide a strong impetus for this World Heritage protection effort. Thus, the sustainability of natural and cultural resources will also be more guaranteed to be enjoyed by present and future generations. This policy is believed to be effective in achieving sustainable development goals that improve the welfare of society and humanity in general.

Objective: protecting the cultural landscape and its scenic view of the Borobudur Temple Compounds from the development and utilization of space that is not following the provisions of Presidential Regulation Number 58 of 2014. The main principle needed is to regulate and control development activities through strengthening and enforcing regulations related to regional spatial planning. The regulation and control of development activities are not intended to hinder society's progress but rather to harmonize development with the preservation of existing resources, including the Outstanding Universal Value's attributes by referring to the principles of sustainable development.
More specifically, the principles in regulating and controlling spatial use/development are:

- Protecting the sites of Borobudur Temple, Mendut Temple, and Pawon Temple, including the buffer zone,
- Protecting the distribution of unexplored historical and archaeological sites,
- Control the scenic view from the top of Borobudur Temple towards the mountains that surround it,
- Increase compliance and enforcement of regulations through public education and outreach that will raise awareness.

**Policies:** Regional spatial planning to overcome spatial planning problems and development pressures is to regulate, control, and improve all development and spatial use activities by strengthening and enforcing Presidential Regulation Number 58 of 2014. This policy be realized with the following strategies:

- Adjusting the plan for the development and utilization of space in the Borobudur Temple Compounds with the provisions of Presidential Regulation Number 58 of 2014,
- Strengthening law and regulation enforcement and institutional coordination related to spatial planning.
# SPATIAL AND DEVELOPMENT PRESSURE

**Objective:** Protecting the cultural landscape and viewpoint of the Borobudur Temple Compounds from the development and utilization of space that is not in accordance with the provisions of Presidential Regulation Number 58 of 2014.

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<th>POLICIES</th>
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</table>
| Regulate, control, and improve all spatial development and utilization activities through strengthening and enforcing Presidential Regulation Number 58 of 2014 | Adjusting the plan for the development and utilization of space in the Borobudur Temple Compounds with the provisions of Presidential Regulation Number 58 of 2014 | Compile / revise and enact regional regulations on RTRW, RDTR, and RTBL in Magelang and Kulon Progo Regencies which are in line with Presidential Regulation Number 58 of 2014 and the Extraordinary Universal Value of the Borobudur Temple Compounds and its attributes | 2021-2025 | Arrangement of documents of local regulations governing RTWR, RDTR, and RTBL in Magelang and Kulon Progo Regencies | • Ministry of Spatial Planning  
• BPN Magelang Regency  
• Central Java Provincial Government  
• Magelang regency government  
• DIY Provincial Government  
• Kulon Progo Regency Government |
| Develop, determine, and implement a Master Plan for the Improvement of Sustainable Food Land Agriculture to protect former ancient lake rice fields and improve community welfare in the agricultural sector | | | 2022-2024 | Compilation of the Master Plan document for the Improvement of Sustainable Food Land Agriculture | • Ministry of Agriculture  
• Magelang regency government  
• Central Java Provincial Government |
| Prepare, determine, and implement an integrated Borobudur Area Infrastructure Master Plan to protect untapped archaeological potential, geological structures and viewpoints in the Borobudur Temple Compounds | | | 2022-2024 | Preparation of the Infrastructure Master Plan document | • Magelang regency government  
• Central Java Provincial Government  
• Ministry of Transportation  
• Ministry of PUPR |
| Integrate geospatial data and statistics on the Borobudur Temple Compounds in accordance with Presidential Regulation Number 38 of 2019 concerning One Indonesian Data | | | 2022-2024 | Implementation of integration of geospatial data and statistics of the Borobudur Temple Compounds | • Management Body  
• Ministry of SPATIAL PLANNING  
• Ministry of Education and Culture  
• Ministry of Creative Economy  
• Ministry of PUPR  
• Magelang regency government |
# SPATIAL AND DEVELOPMENT PRESSURE

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<td></td>
<td></td>
<td>Implementing the Monitoring and Evaluation Mechanism of Borobudur, Mendut and Pawon Temples as stated in attachment VIII.6</td>
<td>Routine</td>
<td>The implementation of the Monitoring and Evaluation Mechanism in the Borobudur Temple Compounds</td>
<td>Management Body, Ministry of Education and Culture, Magelang regency government</td>
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**SPATIAL AND DEVELOPMENT PRESSURE**

Objective: Protecting the cultural landscape and viewpoint of the Borobudur Temple Compounds from the development and utilization of space that is not in accordance with the provisions of Presidential Regulation Number 58 of 2014.

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</table>
|          | Strengthening law and regulation enforcement as well as institutional coordination related to spatial planning | Disseminating existing regulatory changes effectively to all stakeholders in the Borobudur Temple Compounds | 2022-2024 | The realization of an understanding of legal certainty in spatial planning | • Management Body  
• Ministry of Spatial Planning  
• Magelang regency government |
|          | Increase the socialization of laws and regulations related to the spatial layout of the Borobudur Temple Compounds to stakeholders and the public | 2022-2024 | The reduced number of cases of spatial planning violations in the Borobudur Temple Compounds | • Management Body  
• Ministry of Spatial Planning  
• Magelang regency government |
|          | Ensure that any spatial changes that have the potential to threaten the authenticity and integrity of the Borobudur Temple Compounds are complemented by a Heritage Impact Assessment | 2022-2031 | Preparation of HIA documents for each spatial change plan in the Borobudur Temple Compounds | • Management Body  
• Ministry of Spatial Planning  
• Ministry of Education and Culture  
• Ministry of PUPR  
• Magelang regency government |
|          | Increase the capacity of policy makers and implementers at the central and regional levels as well as law enforcement officials related to enforcement of laws and regulations regarding spatial planning and protection of Cultural Heritage | 2022-2024 | Availability of law enforcement officers related to spatial planning regulations and protection of Cultural Heritage | • Management Body  
• Ministry of Spatial Planning  
• Ministry of Education and Culture  
• Ministry of PUPR  
• Magelang regency government  
• POLRI |
## SPATIAL AND DEVELOPMENT PRESSURE

Objective: Protecting the cultural landscape and viewpoint of the Borobudur Temple Compounds from the development and utilization of space that is not in accordance with the provisions of Presidential Regulation Number 58 of 2014.

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</table>
| Prepare and run remedial programs to restore and strengthen the cultural landscape of the Borobudur Temple Compounds | Conduct a comprehensive review of the layout, building layout and environment in the Borobudur Temple Compounds | 2022-2023 | Compilation of review documents on spatial planning, building layouts, and the existing environment in the Borobudur Temple Compounds | • Management Body  
• Ministry of Spatial Planning  
• Magelang regency government |
| | Creating a pilot project for the improvement program, in collaboration with key stakeholders in the Borobudur Temple Compounds | 2022-2025 | Implementation of a repair program to restore the cultural landscape of the Borobudur Temple Compounds | • Management Body  
• Ministry of Environment and Forestry  
• Magelang regency government  
• Public |
| Maintain the integrity of the site and natural conditions in the location of the former ancient lake as the historical setting of the Borobudur Temple Compounds | Clearly map the delineation of ancient lakes | 2022-2023 | Compilation of delineation documents of former ancient lakes | • Management Body  
• Ministry of Education and Culture |
| | Preserving rice fields and rivers which are the remains of ancient lakes | 2022-2026 | Protected rice fields of the former ancient lake as a geological heritage | • Management Body  
• Ministry of Spatial Planning  
• Ministry of Education and Culture  
• Magelang regency government |
| | Reconstructing and structuring the river bank which is the remnants of ancient lake mud sediment | 2022-2026 | Maintenance of river cliffs which are remnants of ancient lake sediments | • Management Body  
• Ministry of Education and Culture  
• Magelang regency government  
• Public |
**VI.2 Conservation**

**Objective:** maintaining the integrity and authenticity of the Borobudur Temple Compounds' attributes through careful monitoring, proper planning, and accurate implementation of proven treatment methods based on valid studies.

The policies taken are as follows:

1) Maintaining the physical condition of the Borobudur Temple Compounds,

2) Maintaining the condition of the cultural landscape of the Borobudur Temple Compounds,

Implementation of a comprehensive and integrated maintenance program with other programs. It aimed at reducing direct and indirect negative impacts that threaten the authenticity and integrity of all the Borobudur Temple Compounds' attributes. The maintenance program is carried out with the support of studies and the application of appropriate and proven technology. The use of the Borobudur Temple Compounds for the community's maximum welfare is carried out while upholding the principles of protection and avoiding acts of excessive exploitation.

Several things that need to be considered in implementing this policy include:

1) To conserve temple buildings following international standards,

2) Maintain the Borobudur Temple Compounds, including the former ancient lake as a historical setting and an imaginary corridor connecting Borobudur Temple, Pawon Temple, and Mendut Temple.

3) Preserving the cultural landscape of the Borobudur Temple Compounds,

4) Undertake minimum interventions to maintain the authenticity of the material and the integrity of the monument.
The Conservation-related Strategies are as follows:

1) Improve the quality of physical maintenance activities for Borobudur Temple, Pawon Temple, Mendut Temple, and other Cultural Heritage activities according to international standards,

2) Improving the environmental quality of the imaginary axis connecting Borobudur Temple, Pawon Temple, and Mendut Temple,

3) Maintaining the scenic view of the Borobudur Temple Compounds,

4) Maintaining the integrity of the site and natural conditions in the location of the former ancient lake as the historical setting of the Borobudur Temple Compounds,

5) Conducting a survey, excavation, reconstruction, and arrangement of archaeological potential in the Borobudur Temple Compounds.

The Borobudur Conservation Office is an implementing unit that is currently tasked with carrying out tasks related to preservation and conservation at the Borobudur Temple Compounds according to the Regulation of the Minister of Education and Culture Number 29 of 2015. BCO has compiled a Strategic Plan for the Borobudur Conservation Office (2020 - 2024) and various SOP. It is a reference for carrying out work tasks following government agencies' functions and performance appraisal tools based on technical, administrative, and procedural indicators following work procedures, work procedures, and work systems in the unit concerned.

Some of these POS include the Standard Operational Procedure for Disaster Management for Borobudur Temple (2015), various POS for maintenance such as connecting loose statues, joining stones and repairing floors, Guidelines for Licensing and Utilization of Borobudur Temple, Mendut Temple and Pawon Temple (2020). During the Covid-19 pandemic, a Fixed Procedure for Visits to the Core Zone of the Borobudur Temple in the New Normal Era had been prepared.
## CONSERVATION

Objective: Maintain the integrity and authenticity of the attributes of the Borobudur Temple Compounds through careful monitoring, proper planning, and accurate implementation as well as proven treatment methods based on valid studies.

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<tbody>
<tr>
<td>Maintaining the maintained physical condition of Borobudur Temple Compounds</td>
<td>Improving the quality of physical maintenance activities of Mendut Temple, Pawon Temple, Borobudur Temple, and other Cultural Heritage in accordance with international standards</td>
<td>Establishing Maintenance Standards for Borobudur Temple Compounds includes updating conservation methods, techniques, and materials</td>
<td>2023-2024</td>
<td>Standard Maintenance document of Borobudur Temple Compounds</td>
<td>• Management Body&lt;br&gt; • Ministry of Education and Culture</td>
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<tr>
<td></td>
<td></td>
<td>Improving Facilities and Infrastructure and Human Resources Maintenance</td>
<td>Routine</td>
<td>Availability of quality facilities, infrastructure, and human resources</td>
<td>• Management Body&lt;br&gt; • Ministry of Education and Culture</td>
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<td></td>
<td></td>
<td>Conduct regular monitoring and evaluation of cultural and environmental heritage conditions (geohidrology)</td>
<td>Routine</td>
<td>The composition of documents monitoring the condition of cultural and environmental heritage</td>
<td>• Management Body&lt;br&gt; • Ministry of Education and Culture</td>
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<td></td>
<td></td>
<td>Has a state-of-the-art conservation laboratory with the latest technology</td>
<td>2023-2027</td>
<td>Availability of conservation laboratories to support maintenance</td>
<td>• Management Body&lt;br&gt; • Ministry of Education and Culture&lt;br&gt; • Ministry of Finance&lt;br&gt; • Bappenas</td>
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<td></td>
<td>Developing a Cultural Heritage Conservation Center in Borobudur Temple Compounds</td>
<td>2023-2027</td>
<td>Establishment of Cultural Heritage Conservation Center in Borobudur Temple Compounds</td>
<td>• Management Body&lt;br&gt; • Ministry of Education and Culture&lt;br&gt; • Ministry of Finance&lt;br&gt; • Bappenas</td>
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<td>Monitoring and evaluation of the stability of borobudur temple and hill structure</td>
<td>Routine</td>
<td>The establishment of documents monitoring the stability of borobudur temple and hill structure</td>
<td>• Management Body&lt;br&gt; • Ministry of Education and Culture</td>
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<tr>
<td></td>
<td></td>
<td>Monitoring and evaluation of the utilization of Borobudur Temple Compounds</td>
<td>Routine</td>
<td>The composition of documents monitoring the utilization of Borobudur Temple Compounds</td>
<td>• Management Body&lt;br&gt; • Ministry of Education and Culture</td>
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**CONSERVATION**

Objective: Maintain the integrity and authenticity of the attributes of the Borobudur Temple Compounds through careful monitoring, proper planning, and accurate implementation as well as proven treatment methods based on valid studies.

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<tr>
<td>Development and improvement of archaeological potential to spread the visit</td>
<td></td>
<td>Conducting surveys, excavations, reconstructions, and arrangement of archaeological potential in Borobudur Temple Compounds</td>
<td>incidental</td>
<td>Increasing number of archaeological potentials that have been organized in Borobudur Temple Compounds</td>
<td>Management Body, Ministry of Education and Culture, Government of Magelang Regency</td>
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<td></td>
<td></td>
<td>Cultural heritage rescue</td>
<td>incidental</td>
<td>Increased number of saved cultural reserves</td>
<td>Management Body, Ministry of Education and Culture, Government of Magelang Regency</td>
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<td>Develop, implement, and supervise the revitalization plan and land arrangement of the site in Borobudur Temple Compounds</td>
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<td>Management Body, Ministry of Education and Culture, Government of Magelang Regency</td>
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<td>Arranging, implementing, and supervising land arrangement in Mendut Temple, Pawon Temple, and Borobudur Temple</td>
<td>2022-2026</td>
<td>Land arrangement held in Mendut Temple, Pawon Temple, and Borobudur Temple</td>
<td>Management Body, Ministry of Education and Culture, Ministry of PUPR, Government of Magelang</td>
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<td>Monitoring and Evaluating the Maintenance Condition of Mendut, Pawon and Borobudur Temples as stated in the Borobudur Visitor Management Plantable 45</td>
<td>Routine</td>
<td>Monitoring and Evaluation of Maintenance Conditions of Mendut, Pawon, and Borobudur Temples in BVMP</td>
<td>Management Body, Ministry of Education and Culture</td>
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VI.3 Visitation and Tourism

The Borobudur Temple Compounds has long been a tourist destination with many visits, both from domestic and foreign tourists. The number of visits appears to have increased, especially after the temple was completely restored in 1983. The JICA Master Plan predicted this by estimating the visiting rate to reach 3.5 million people in 1998 (JICA, p. 208). In 2019, data from the Central Statistics Agency of Magelang Regency showed that the number of visitors had reached four million people.

The JICA Masterplan has compiled a plan to disseminate the visit by utilizing Zone 2 of the Borobudur Temple. However, the current tourist visits pattern is more centered on Borobudur Temple, and visitors immediately go up to the temple. As a result, there is a high visitation that exceeds the carrying capacity, which harms the state of conservation of this World Heritage attributes. The Borobudur Temple Compounds is part of the National Tourism Strategic Area based on Government Regulation Number 50 of 2011 concerning the National Tourism Development Master Plan (RIPPARNAS) and is part of the super-priority destination of the Borobudur-Yogyakarta-Prambanan Area (BYP). This policy is expected to continue to increase visits to Borobudur Temple. If visitor management is not carried out properly, the threat to the Extraordinary Universal Value and World Heritage attributes will increase as well. Therefore, a better tourism policy and visitor management are needed.

The objectives of the management of visitation and tourism are as follows:

1) Enhancing the protection of natural resources and cultural landscapes,

2) Increase the experience, appreciation, and understanding of visitors to the Extraordinary Universal Value of the Borobudur Temple Compounds through adequate interpretation and presentation, including raising awareness and concern for its fragility,

3) Minimizing the negative impacts of tourism through education, management of flows, and distribution of visitors that are not only centered on the temple.
4) Strengthening local values to support the protection of the natural and cultural landscape of the Borobudur Temple Compounds as an integral part of the temple building,

5) Encouraging local economic growth by utilizing various potential resources to improve community welfare,

6) Improve people's quality of life to overcome economic problems, unemployment and eradicate poverty.

The tourism policy in general for the Borobudur Temple Compounds is based on tourism principles implemented in cultural heritage sites by prioritizing the sustainability of cultural heritage and the welfare of local communities. For this Management Plan, the principles used are extracted from several documents, including Managing Tourism at Places of Heritage Significance (1999), Sustainable Tourism for Development Guidebook (2013), and Tourism Management at UNESCO World Heritage Sites*.

The main points of tourism policy at the Borobudur Temple Compounds are as follows:

1) The implementation and development of tourism activities must prioritize the sustainable protection of existing resources, cultural resources, and the natural environment. Tourism should be directed towards protecting and maintaining the local ecology, including cultural landscapes, including cultural heritage (tangibles and intangibles), local people's lives, and biodiversity.

2) The implementation and development of tourism activities must respect the norms, traditional values, customs, diversity of beliefs (religions), and the interests of the local community and be able to make a significant contribution to the preservation of the cultural works of the community, and both built culture and art expression.

3) The implementation and development of tourism must improve the quality of life and welfare of local communities sustainably, including increasing economic independence, providing employment opportunities, eliminating poverty, and providing benefits to all stakeholders involved, including preserving existing resources.

4) The implementation and development of tourism must be participatory by involving local communities as active stakeholders from the planning, implementation, monitoring and evaluation processes.

5) The administration and development of tourism must provide a memorable experience for visitors by creating a distinctive atmosphere while maintaining natural and cultural elements and containing educational and enlightening content.

The policy of visiting the Borobudur Temple Compounds is based on calculating the carrying capacity and the experiences visitors will get. Given that the carrying capacity of each attraction in this area is limited and varies, while the current tendency of visitors to focus on Borobudur Temple, three policy principles will be applied as follows:

1) Visiting activities are regulated by taking into account the carrying capacity of each attraction. Thus, direct visits to Borobudur Temple must be reduced to follow its carrying capacity and diverted to other attractions in the Buffer Zone and distributed to surrounding villages according to their respective carrying capacities.
2) Development of the Buffer Zone’s visiting facilities (buffer zone) of Borobudur Temple must continue to provide impressive experiences with nuances of education and enlightenment and be held to strengthen the interpretation and presentation of the Extraordinary Universal Value of the Borobudur Temple Compounds.

3) The distribution of visits outside the three temples in the Borobudur Temple Compounds must remain based on the principles adhered to in general tourism policies described above and not in conflict with efforts to protect the Extraordinary Universal Value of this World Heritage and its attributes.

The policy for organizing religious activities is based on studies and public consultations, which indicate the need to carry out religious activities or other traditions in the Borobudur Temple Compounds. By taking into account the interests of many parties, as well as the principles of preserving religious nuances in cultural heritage—as outlined in the Québec Declaration on the Preservation of the Spirit of Place and the Statement on the Protection of Religious Properties within the Framework of the World Heritage Convention—the policy the implementation of religious activities or other traditions in the Borobudur Temple Compounds must be based on the principles of openness through dialogue with the religious community to build mutual understanding, respect, and cooperation.

Given that during the process of compiling this Management Plan, the Integrated Tourism Management Plan for Borobudur-Yogyakarta-Prambanan (ITMP BYP) was also being developed, the visitor management planning policy for the Borobudur Temple Compounds was specifically produced on a Borobudur Visitor Management Plan (BVMP). Meanwhile, the strategy for managing visits and tourism activities is as follows:

1) Implementing a Visitor Management Plan, including limiting the number of visitors who climb to the temple in accordance with the capacity set by the Borobudur Conservation Office (BCO) and setting limits on the number of visitors who come in groups so that they can be maximally accompanied and supervised by guides,
2) Development of a Visitor Information Center which is oriented towards the service and management of visitors as one of the main touchpoints during the visit,

3) Controlling the physical development of tourism facilities according to zoning,

4) Develop interpretation and presentation strategies,

5) Develop special interest tours that strengthen the protection of the Borobudur Temple Compounds and its cultural landscape.

6) Prioritizing the designation of the Borobudur Temple Compounds as a particular event destination with educational content,

7) Develop rural tourism and strengthen the institutional capacity of community-based tourism,

8) Increase community capacity through certified training, for example, in food production, hygiene, and sanitation,

9) To develop tourism activities and facilities that are sustainable for the environment and increase public awareness of economic opportunities related to environmental conservation,

10) To develop tourism activities that are economically sustainable and just,

11) To develop tourism activities that are socially and culturally acceptable to the community by increasing community involvement through the holding of annual or biennial meetings on issues in the Borobudur Temple Compounds and its surroundings that involve academics, community representatives, NGOs, and representatives of the tourism industry.
### VISITATION AND TOURISM

Objective: Increase the experience, appreciation, and understanding of visitors about the extraordinary universal value of the Borobudur Temple Compounds through adequate interpretation and presentation, including raising awareness and concern for its fragility.

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| Develop and organize sustainable tourism that supports the protection of the Borobudur Temple Compounds and the welfare of the community | Implementing the Borobudur Visitor Management Plan | Develop and apply rules, flow / circulation, and schedule of visits | 2021-2022 | Implementing the rules, flow / circulation, and schedule of visits | • Management Body  
• Ministry of Creative Economy |
| | | Establish days without visits | 2021-2022 | The implementation of a day without visits | • Management Body  
• Ministry of Creative Economy |
| | | Restrictions on visitor access to the Borobudur Temple | 2021-2023 | Implementing visitor access restrictions | • Management Body  
• Ministry of Creative Economy |
| | | Provide easy access for visitors with special needs | 2022-2024 | Availability of access for visitors with special needs | • Management Body  
• Ministry of Creative Economy |
| | Develop special interest tours | Development of archaeotourism or archaeological tourism to promote public archaeology that focuses on education and provides a meaningful visiting experience at archaeological sites | 2022-2024 | Increasing interest in archaeotourism | • Management Body  
• Ministry of Creative Economy |
| | | Developing interactive educational tourism activities by involving communities of history and heritage activists, for example: Night at the Temple, Amazing Race, etc. | 2022-2024 | • Increasing interest in interactive educational tours  
• Increasing the number of communities involved in educational tourism | • Management Body  
• Ministry of Creative Economy |
| | | Making a heritage ride and a heritage walk | 2022-2024 | Availability of heritage ride lines and heritage walks | • Management Body  
• Ministry of Creative Economy  
• Ministry of PUPR |
Objective: Increase the experience, appreciation, and understanding of visitors about the extraordinary universal value of the Borobudur Temple Compounds through adequate interpretation and presentation, including raising awareness and concern for its fragility.

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<tr>
<td>Making the Borobudur Temple Compounds a quality MICE destination</td>
<td>Coordinating the implementation of religious rituals in order to increase benefits for the community and minimize negative impacts</td>
<td>Routine</td>
<td>The implementation of religious rituals well and smoothly</td>
<td>Management Body, Ministry of Religion, Ministry of Education and Culture, Magelang regency government, TNI and POLRI</td>
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<tr>
<td>Coordination of organizing special events in order to increase benefits for the community and minimize negative impacts</td>
<td>Routine</td>
<td>The implementation special events well and smoothly</td>
<td>Management Body, Ministry of Creative Economy, Ministry of Education and Culture, Magelang regency government, TNI and POLRI</td>
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<tr>
<td>Develop facilities to support MICE activities that are in line with the protection of the spatial and cultural landscape of the Borobudur Temple Compounds</td>
<td>2022-2026</td>
<td>The availability of MICE facilities that are in harmony with the protection of the spatial and cultural landscape of the Borobudur Temple Compounds</td>
<td>Management Body, Ministry of PUPR, Ministry of Education and Culture, Magelang regency government, TNI and POLRI</td>
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</tr>
<tr>
<td>Develop rural tourism and strengthen the institutional capacity of community-based tourism</td>
<td>Develop a calendar of activities in order to support and protect local traditions, customs and values as an intangible cultural heritage that is important as an element forming the cultural landscape</td>
<td>2021-2022</td>
<td>Arrangement of a calendar of cultural activities held by the community</td>
<td>Management Body, Ministry of Creative Economy, Ministry of Education and Culture, Magelang regency government, Public</td>
<td></td>
</tr>
</tbody>
</table>
## VISITATION AND TOURISM

**Objective:** Increase the experience, appreciation, and understanding of visitors about the extraordinary universal value of the Borobudur Temple Compounds through adequate interpretation and presentation, including raising awareness and concern for its fragility.

<table>
<thead>
<tr>
<th>POLICIES</th>
<th>STRATEGY</th>
<th>ACTION PLAN</th>
<th>TIME</th>
<th>INDICATOR</th>
<th>IMPLEMENTER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Develop and implement a master plan for the revitalization of tourist villages</td>
<td>2022-2023</td>
<td>The compilation of master plan documents for the revitalization of tourist villages</td>
<td>Management Body, Ministry of Villages, PDT and Transmigration, Ministry of Education and Culture, Ministry of Creative Economy, Magelang regency government</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Determination and determination of villages that have the potential to become tourism villages</td>
<td>2022-2023</td>
<td>Availability of a list of tourist villages</td>
<td>Management Body, Ministry of Creative Economy, Magelang regency government</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Developing local superior products from the villages around the Borobudur Temple Compounds with raw materials preferably from the local environment</td>
<td>2022-2024</td>
<td>Availability of local superior product centers</td>
<td>Management Body, Ministry of Agriculture, Ministry of Cooperatives and UMKM, Magelang regency government, Public</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Empowering and increasing community capacity to support tourism villages in Sapta Pesona insight, excellent service, tour management, and CHSE (Cleanliness, Health, Safety and Environment Sustainability)</td>
<td>2022-2024</td>
<td>Increasing the number of people/community groups who received the CHSE certification</td>
<td>Management Body, Ministry of Creative Economy, Magelang regency government, Public</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical revitalization and management of tourist villages in accordance with the principles of overall preservation</td>
<td>2022-2024</td>
<td>Increase the capacity of community institutions in the management of tourist villages</td>
<td>Management Body, Ministry of Creative Economy, Magelang regency government, Public</td>
</tr>
</tbody>
</table>
## VISITATION AND TOURISM

Objective: Increase the experience, appreciation, and understanding of visitors about the extraordinary universal value of the Borobudur Temple Compounds through adequate interpretation and presentation, including raising awareness and concern for its fragility.

<table>
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<tr>
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<th>STRATEGY</th>
<th>ACTION PLAN</th>
<th>TIME</th>
<th>INDICATOR</th>
<th>IMPLEMENTER</th>
</tr>
</thead>
</table>
| Revitalization of traditional Javanese architecture houses | | | 2022-2024 | The number of houses with traditional Javanese architecture that have been revitalized | • Management Body  
• Ministry of Creative Economy  
• Magelang regency government  
• Public |
| Development of village MSMEs that support tourism | | | 2022-2031 | Increasing the quantity and quality of Borobudur's signature products | • Management Body  
• Ministry of cooperatives and SMEs  
• Magelang regency government  
• Public |
| Creating a positive, educational, and inspirational visiting experience based on the Extraordinary Universal Value of the Borobudur Temple Compounds and its attributes | Developing new attractions to compensate for the restriction of visitor access to Borobudur Temple | Improvement of facilities and infrastructure to support educational attractions using modern technology and new media | 2022-2026 | Availability of facilities and infrastructure to support educational attractions that use new technology and media | • Management Body  
• Ministry of Education and Culture  
• Ministry of Creative Economy  
• Ministry of PUPR |
| | Revitalizing the Borobudur Market area as an alternative to relocating the souvenir stalls and new parking centers | | 2022-2026 | The realization of the arrangement of the market environment as a center for trade in goods and services as well as a shopping tourism location in Borobudur | • Management Body  
• Central Java Provincial Government  
• Magelang regency government  
• Ministry of PUPR  
• Public |
| | Developing eco-friendly tourism activities and facilities | | 2022-2026 | Availability of eco-friendly tourism activities and facilities | • Management Body  
• Central Java Provincial Government  
• Magelang regency government  
• Ministry of PUPR |
## VISITATION AND TOURISM

**Objective:** Increase the experience, appreciation, and understanding of visitors about the extraordinary universal value of the Borobudur Temple Compounds through adequate interpretation and presentation, including raising awareness and concern for its fragility.

<table>
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<tr>
<th>POLICIES</th>
<th>STRATEGY</th>
<th>ACTION PLAN</th>
<th>TIME</th>
<th>INDICATOR</th>
<th>IMPLEMENTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>View point location development</td>
<td>2021-2023</td>
<td>Availability of tourist locations to view Borobudur from a distance</td>
<td>Management Body, Central Java Provincial Government, Magelang regency government, Ministry of PUPR, Public</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revitalization of museum, theater and audio-visual materials</td>
<td>2022-2025</td>
<td>The availability of museums, theaters, and audio-visual materials as a means of education, interpretation and information</td>
<td>Management Body, Ministry of Creative Economy, Ministry of PUPR, Magelang regency government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Updating of interpretation boards and information</td>
<td>2022-2025</td>
<td>Increased level of visitors' understanding of the World Heritage of the Borobudur Temple Compounds</td>
<td>Management Body, Ministry of Creative Economy, Ministry of PUPR, Magelang regency government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing a service-oriented Smart Pavilion and visitor management as one of the main touch points in the visit</td>
<td>Creating a design with the principles of servicescape or a user-friendly physical environment</td>
<td>2022-2023</td>
<td>The compilation of the DED of the Smart Pavilion with the servicescape principle</td>
<td>Management Body, Ministry of Creative Economy, Ministry of Education and Culture, Magelang regency government, Central Java Provincial Government</td>
<td></td>
</tr>
<tr>
<td>POLICIES</td>
<td>STRATEGY</td>
<td>ACTION PLAN</td>
<td>TIME</td>
<td>INDICATOR</td>
<td>IMPLEMENTER</td>
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<tr>
<td></td>
<td>Develop interpretation facilities to provide preliminary information for</td>
<td>2023-2024</td>
<td>The availability of an informative, educational, inspirational Smart Pavilion with service orientation to visitors</td>
<td>Management Body</td>
<td></td>
</tr>
<tr>
<td></td>
<td>visitors prior to visiting World Heritage</td>
<td></td>
<td></td>
<td>• Ministry of Creative Economy</td>
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<td></td>
<td>• Ministry of Education and Culture</td>
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<td></td>
<td></td>
<td>• Magelang regency government</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>• Central Java Provincial Government</td>
<td></td>
</tr>
<tr>
<td>Improve the quality of security</td>
<td>Improve facilities and infrastructure as well as security human resources</td>
<td>2022-2023</td>
<td>The availability of facilities, infrastructure, and quality security human resources</td>
<td>Management Body</td>
<td></td>
</tr>
<tr>
<td>activities at the Borobudur Temple</td>
<td></td>
<td></td>
<td></td>
<td>• TNI and POLRI</td>
<td></td>
</tr>
<tr>
<td>Compounds</td>
<td></td>
<td></td>
<td></td>
<td>• Magelang regency government</td>
<td></td>
</tr>
<tr>
<td>Conduct routine security patrols at</td>
<td></td>
<td>Routine</td>
<td>The implementation of routine security patrols</td>
<td>Management Body</td>
<td></td>
</tr>
<tr>
<td>the Borobudur Temple Compounds</td>
<td></td>
<td></td>
<td></td>
<td>• POLRI</td>
<td></td>
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<td></td>
<td>• Magelang regency government</td>
<td></td>
</tr>
</tbody>
</table>
Objective, Policies, and Strategy related to

VI.4 Regulations

Objective: To ensure the harmony and consistency of the regulations established to regulate and control development and preservation activities in the Borobudur Temple Compounds.

Policy: Harmonizing and compiling consistent regulations in regulating and controlling development and conservation activities must be carried out jointly with all parties in a participatory manner so that the result is a collective agreement that has considered the interests of all parties. Likewise, law enforcement efforts must be carried out as fairly as possible and accompanied by efforts to raise public awareness continuously.

Strategies related to Legal Protection

1) Maintaining good communication between the central, provincial and district governments as well as the community to synchronize, harmonize and disseminate various regulations that are enforced,

2) Carry out an appropriate advocacy program, namely efforts to increase compliance by carrying out various kinds of persuasive communication patterns,

3) Overturning or canceling regulations that no longer have an adequate legal basis,

4) Realizing the mandate of Law Number 11 Year 2010 article 97 to establish the Borobudur Temple Compounds Management Body as a World Heritage and National Cultural Heritage Area.
## Regulations

**Objective:** Ensuring the harmony and consistency of the regulations established to regulate and control development and preservation activities in the Borobudur Temple Compounds.

<table>
<thead>
<tr>
<th>Policies</th>
<th>Strategy</th>
<th>Action Plan</th>
<th>Time</th>
<th>Indicator</th>
<th>Implementer</th>
</tr>
</thead>
</table>
| Compile, harmonize, and enforce regulations consistently as fairly as possible in order to regulate and control development and preservation activities in the Borobudur Temple Compounds | Establish good communication between the central, provincial and district governments as well as the community to synchronize, harmonize and disseminate various regulations that are enforced | Harmonization between tourism regulations on national, provincial, and regency level | 2022-2026 | Arrangement of tourism regulations that are synchronous and harmonious | • Ministry of Creative Economy  
• Central Java Provincial Government  
• Magelang regency government |
| Conducting appropriate advocacy programs, namely efforts to increase compliance by carrying out various kinds of persuasive communication patterns | Dissemination of regulations / regulations to stakeholders including the public | Routine | Decreased number of violation cases at the Borobudur Temple Compounds | • Management Body  
• POLRI  
• Magelang regency government |
| Overturning or canceling regulations that no longer have a sufficient legal basis | Review of Presidential Decree No.1 of 1992 | 2022 | Formulation of relevant regulations related to PT TWC | • Ministry of Education and Culture  
• Ministry of BUMN |
| Realizing the mandate of the Law of the Republic of Indonesia Number 11 of 2010 Article 97 to establish the Borobudur Temple Compounds Management Body | Establishment of an integrated management institution | 2021 | Establishment of a Management Body at the Borobudur Temple Compounds | • Ministry of Education and Culture  
• Ministry of Creative Economy  
• Ministry of BUMN  
• Ministry of Finance  
• Ministry of PAN-RB  
• Bappenas |
Objective, Policies, and Strategy related to

VI.5 Management

Objective: To carry out integrated management under one management body that has the authority and responsibility in planning, implementing, monitoring, and evaluating all conservation activities within the Borobudur Temple Compounds.

Policy: Establishing a non-profit Borobudur Temple Compounds Management Body based on the mandate of Law of the Republic of Indonesia Number 11 of 2010, article 97, which states that the Government must facilitate the management of Cultural Conservation Areas. Area management is carried out by a Management Body established by the Government, Local Government, and customary law communities.

The management body may consist of elements from the Government and Regional Government, the business world, and the community. Besides, Presidential Decree No.1 of 1992 is no longer usable because the legal basis on which it is based is no longer valid.

The strategies to implement the above policies are:
1) Prepare an academic paper for the establishment of the Borobudur Temple Compounds Management Body,
2) Harmonizing the legal basis for the establishment of the Borobudur Temple Compounds Management Body with other laws and regulations,
3) Ensuring the involvement of stakeholders in managing the Borobudur Temple Compounds,
4) Coordinate with ministries/agencies, especially the Ministry of Finance and the Ministry of State Apparatus Empowerment-Bureaucratic Reform in the establishment of the Borobudur Temple Compounds Management Agency,
5) Developing facilities and infrastructure that support the Borobudur Temple Compounds Management Body in a sustainable manner.

The primary duties and functions of the Management Body are as follows:

1) Providing goods/services for the preservation of cultural resources in the Borobudur National Strategic Area (Borobudur Temple Compounds) for the maximum benefit of the welfare of the community,

2) Carrying out the management of the Borobudur Temple Compounds in a professional, transparent and accountable manner by involving community participation from the planning, implementation, monitoring and evaluation processes, as well as the development of area functions,

3) Ensuring the protection of strategic locations in maintaining the functions and carrying capacity of the environment, and having a role in efforts to conserve cultural assets and World Heritage,

4) Organizing, supervising, and controlling tourism activities in order to prevent and overcome various negative impacts in the broader community,

5) As a coordinator that ensures integration between sectors, between regions, between the government and local governments, and other stakeholders.

Following its duties and functions, the Borobudur Temple Compounds Management Body is a BLU under the Ministry of Cultural Affairs. The proposed organizational structure consists of a Supervisory Board, Internal Examiner (auditor), Executive Board of Directors, Finance (and administration), and technical implementing units (in accordance with Minister of Empowerment of the State Apparatus Regulation No.2 of 2007 concerning Guidelines for the Organization of Work Units in Institutions Government Implementing Public Service Agency Financial Management Pattern). Given its duties and functions, it is proposed that the Management Body at least have the following Technical Units:
Given its duties and functions, it is proposed that the Management Body at least have the following Technical Units:

1) Community Development and Empowerment Unit
2) Resource Conservation Unit
3) Research and Education Unit
4) Promotion and Fundraising Unit

Figure 24. Organizational chart of the proposed Management Body
The following is a description of the elements of the Management Body Organization, according to their duties and functions:

<table>
<thead>
<tr>
<th>POSITION</th>
<th>JOB AND FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stakeholder Forum</strong></td>
<td>• A place to accommodate aspirations, hearings, and exchange ideas between all stakeholders, especially the local community regarding recommendations for directions, policies, strategies, and evaluation of the management of the Borobudur Temple Compounds;</td>
</tr>
<tr>
<td></td>
<td>• Carry out a fit and proper test on prospective members of the Supervisory Board;</td>
</tr>
<tr>
<td></td>
<td>• Provide recommendations for the appointment and dismissal of prospective members who will sit on the Supervisory Board based on the principles of deliberation and representation to the Minister in charge of cultural affairs;</td>
</tr>
<tr>
<td></td>
<td>• Carry out a fit and proper test of the candidate for the Managing Director;</td>
</tr>
<tr>
<td></td>
<td>• Provide recommendations for the appointment and dismissal of a candidate for Managing Director based on the principle of deliberation to the Minister in charge of cultural affairs;</td>
</tr>
<tr>
<td></td>
<td>• Prepare recommendations for the Organization’s Vision and Mission, and Management Plans (general policies, strategic plans and long-term work programs) to be stipulated by the Minister in charge of cultural affairs,</td>
</tr>
<tr>
<td></td>
<td>• Together with the Minister in charge of cultural affairs and the Minister in charge of state finance, we can appoint a public accountant to evaluate the Management Body’s overall performance.</td>
</tr>
<tr>
<td>POSITION</td>
<td>JOB AND FUNCTION</td>
</tr>
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<td>---------------------</td>
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</tr>
<tr>
<td>Supervisory Board</td>
<td>• Determined by the Minister in charge of cultural affairs with a recommendation from the Stakeholder Forum to oversee the overall performance of the Management Body;</td>
</tr>
<tr>
<td></td>
<td>• Appoint a public accountant as a Supervisory Unit who will evaluate the performance of the Management Body including financial administration management, performance achievements, and the suitability of work programs with the Management Plan;</td>
</tr>
<tr>
<td></td>
<td>• Provide an annual report on the performance of the Managing Director of the Managing Agency to the Stakeholder Forum and the Minister in charge of cultural affairs</td>
</tr>
<tr>
<td>Supervisory Unit</td>
<td>• Is a public accountant appointed by the Supervisory Board to evaluate the performance of the Managing Director including financial administration management, performance achievements, and the suitability of work programs with the Management Plan;</td>
</tr>
<tr>
<td></td>
<td>• Provide reports on monitoring and recommendations for improvement of the Managing Director’s performance to the Supervisory Board.</td>
</tr>
<tr>
<td>Managing Director</td>
<td>• Implement Ministerial decrees in charge of cultural affairs based on the recommendations of the Stakeholder Forum, whether in the form of Organizational Vision and Mission, master plans, general policies, strategic plans, and long-term work programs as well as other decisions that are submitted to the Executive Director for implementation;</td>
</tr>
<tr>
<td></td>
<td>• Provide annual reports on financial administration management, performance achievements, and implementation of work programs to the Supervisory Board and the Minister in charge of cultural affairs.</td>
</tr>
<tr>
<td>Administration and Finance Unit</td>
<td>• Organizing an administrative system that supports the implementation of all program activities mandated by the Management Body;</td>
</tr>
<tr>
<td></td>
<td>• Managing Human Resources and organizational infrastructure of the Management Body.</td>
</tr>
<tr>
<td>POSITION</td>
<td>JOB AND FUNCTION</td>
</tr>
<tr>
<td>----------------------------------------------</td>
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</tr>
<tr>
<td>Community Development and Empowerment Unit</td>
<td>• Providing media and conflict resolution mechanisms in multidimensional and cross-sectoral management;</td>
</tr>
<tr>
<td></td>
<td>• Participate in facilitating the availability of infrastructure and facilities needed to develop the Borobudur Temple Compounds and the people who live in it by coordinating with the Ministry in charge of infrastructure development, public facilities, and infrastructure;</td>
</tr>
<tr>
<td></td>
<td>• Planning and implementing programs aimed at improving the welfare of society economically, socially, and culturally; To plan and implementing community capacity-building programs.</td>
</tr>
<tr>
<td>Conservation of Resources</td>
<td>• Developing the primary function of the area as a cultural heritage protected area;</td>
</tr>
<tr>
<td></td>
<td>• Maintain and conserve ecological and archaeological resources;</td>
</tr>
<tr>
<td></td>
<td>• Rehabilitating (remedial program) protected areas that are increasingly pushed back by development and utilization activities;</td>
</tr>
<tr>
<td></td>
<td>• To control the development and utilization of the Borobudur Temple Compounds and other cultural heritage (tangible and intangible) following the principles of sustainable development;</td>
</tr>
<tr>
<td></td>
<td>• Ensuring the implementation of the policy on the use of area space following the principles of regulation contained in Presidential Regulation Number 58 of 2014;</td>
</tr>
<tr>
<td></td>
<td>• Provide directions for the implementation of development to regions and sectors;</td>
</tr>
<tr>
<td></td>
<td>• Carry out monitoring of the implementation of policies to control the use of area space carried out by the government and the community;</td>
</tr>
<tr>
<td></td>
<td>• To conduct a Cultural Heritage Impact Assessment on development and utilization plans in the Borobudur Temple Compounds.</td>
</tr>
<tr>
<td>POSITION</td>
<td>JOB AND FUNCTION</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Research and Education Unit      | • Developing research programs to increase understanding and development of cultural and natural resources in the Borobudur Temple Compounds;                                                                                           
|                                  | • Conduct research for the development and improvement of organizational, management, and community performance;                                                                                                              
|                                  | • To develop Borobudur Temple Compounds as a source of education that can improve inspirational science, technology, art, and prosperity and enhance the dignity of the nation and state of Indonesia.                                                                                                                                          |

| Promotion and Fundraising Unit   | • Cooperating generates benefits in order to achieve financial independence. Included in this activity are fundraising and Corporate Social Responsibility.                                                                                                                                  
|                                  | • Planning the community-based tourism sector's management and development with a conservation and education perspective and empowerment and gives welfare to the community.                                                                                                           |
Managing a World Heritage site is a big responsibility that needs to be balanced with dedication and expertise in specific fields in order to carry out its function properly. UNESCO has published a guide entitled UNESCO's Competency Framework for Cultural Heritage Management (2020) which can be used as a guide to determine the minimum competence of the Management Body.

In general, the World Heritage Management Body must have the following minimum competencies:

1) Able to provide support for the preservation and effective management under the applicable laws, regulations, and policies,

2) Able to provide practical supporting administrative support,

3) Able to provide adequate Human Resources and financial support for the protection of the cultural heritage in question.

The competencies that members or officeholders must possess in the Management Body are:

| Core Competencies | • Obey laws and regulations  
|                   | • Understanding of the policies, principles, processes, and ethics of preserving cultural heritage  
|                   | • Understanding of the community, its rights, and knowledge  
|                   | • Understanding of education and interpretation of cultural heritage  
|                   | • Understanding of sustainable development  
| Institution Level | • Able to provide support for conservation and effective management following applicable laws, regulations, and policies  
|                   | • Able to provide practical administrative support  
|                   | • Able to provide adequate human resources and financial support for the protection  
| Managing Director level | • Able to manage large organizations  
|                       | • Able to develop policies on national and regional development planning, strategic and financial planning  
|                       | • Able to carry out cross-sectoral coordination  
|                       | • Directing and planning programs for the preservation and management of cultural heritage and implementing them consistently  
| Head of Unit | • Directing and managing mid-level organizations  
|             | • Planning and managing strategic programs and activities  
|             | • Lead and implement complex cultural resource management according to their specialist areas  
| Level of Functional Personnel (Implementing Intermediate) | • Manage, organize, and lead sections or working groups in implementing plans or activities  
|             | • Able to complete fairly complex technical tasks required for the preservation or management of cultural heritage  
| Technical Personnel (Executor) | Able to complete assigned tasks related to the preservation and management of cultural heritage |
Objective: Carry out integrated management under one management body which has the authority and responsibility in planning, implementing, monitoring, and evaluating all conservation activities within the Borobudur Temple Compounds in order to improve the governance of the Borobudur Temple Compounds.

<table>
<thead>
<tr>
<th>POLICIES</th>
<th>STRATEGY</th>
<th>ACTION PLAN</th>
<th>TIME</th>
<th>INDICATOR</th>
<th>IMPLEMENTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage the Borobudur Temple Compounds in an integrated manner under one management body that has the authority and responsibility for planning, implementing, supervising and evaluating all conservation activities</td>
<td>Forming a professional, transparent, accountable and participatory organization</td>
<td>Prepare an academic paper for the Management Body with all stakeholders</td>
<td>2021</td>
<td>Preparation of academic manuscript documents for the establishment of the Management Agency</td>
<td>• Ministry of Education and Culture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Obtained approval for the establishment of the Management Body from the Ministry of Finance and the Ministry of Empowerment of the State Apparatus</td>
<td>2021</td>
<td>Establishment of the Management Body</td>
<td>• Ministry of Education and Culture • Ministry of Creative Economy • Ministry of BUMN • Ministry of Finance • Ministry of PAN-RB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Integrate stakeholders related to the Borobudur Temple Compounds, including the community, in the Management Body</td>
<td>2021</td>
<td>Integration of all stakeholders in the Management Body</td>
<td>• Ministry of Education and Culture • Ministry of BUMN • Magelang regency government • Public</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Developing facilities and infrastructure that support the sustainable management of the Borobudur Temple Compounds</td>
<td>2022-2026</td>
<td>Availability of facilities and infrastructure that support the sustainable management of the Borobudur Temple Compounds</td>
<td>• Ministry of Education and Culture • Ministry of Creative Economy</td>
</tr>
</tbody>
</table>
VI.6 Disaster Risk

**Objectives:** Increasing resilience against natural and human disasters by increasing capacity, reducing the risk of adverse impacts of disasters on the integrity of the Borobudur Temple Compounds, and also ensuring the safety of sites, visitors, and tourism support facilities in the event of a disaster, and ensuring the sustainability of conservation, tourism and post-disaster economic activities.

The Principles for Implementing Multi-Hazard Disaster Resilience Management include:

1) Disaster risk management must ensure people’s safety, property, health, and livelihoods, especially the integrity of the Borobudur Temple Compounds.

2) Disaster risk management upholds the principles of disaster risk reduction and "building back better," which reflects possible disasters, whether due to natural or human-made events.

3) Disaster risk management planning is comprehensive and integrated, covering the entire disaster cycle consisting of pre, during and post-disaster stages.

4) Disaster risk management ensures the sustainability of conservation activities, tourism, and the post-disaster economy as soon as possible.

5) Disaster risk management encourages, accommodates, and optimizes the sharing of responsibilities and the involvement and partnership of all communities and stakeholders.

The Multi-Hazard Disaster Resilience Management Implementation Policy is:

1) Encouraging comprehensive and comprehensive disaster risk management planning that includes the entire disaster cycle consisting of pre, during and post-disaster stages that are oriented towards maintaining the sustainability of the Outstanding Universal Value,

2) Mainstreaming of disaster resilience for each level of stakeholders involved in the preservation of the Borobudur Temple Compounds,

3) Encouraging, accommodating, and optimizing the sharing of responsibilities and the involvement and partnership of all communities and other stakeholders.
Thus, the Disaster Management Strategy can be described as follows:

1) Emergency Response Planning,

2) Reducing disaster risk and increasing disaster preparedness that reflects multi-hazard disasters by respecting the principles of preserving the Borobudur Temple Compounds,

3) Planning for multi-hazard disaster recovery before a disaster occurs,

4) Ensuring the sustainability of conservation, tourism, and economic activities as soon as possible after a disaster,

5) Ensuring smooth communication and coordination between stakeholders,

6) Accommodating the division of roles among stakeholders in disaster management.
**DISASTER RISK**

Objective: Increase resilience against natural and human disasters by increasing capacity, reducing the risk of negative impacts of disasters on the integrity of the Borobudur Temple Compounds, ensuring the security of the site, visitors and tourism support facilities in the event of a disaster, and ensuring the sustainability of conservation, tourism and economic activities after a disaster.

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<tbody>
<tr>
<td>Encouraging disaster risk management planning as a whole and comprehensively, covering the entire disaster cycle consisting of pre, during and post-disaster stages that are oriented towards maintaining the sustainability of the Extraordinary Universal Value of the Borobudur Temple Compounds</td>
<td>Emergency Response Planning</td>
<td>Compiling Contingency Plans for the Borobudur Temple Compounds</td>
<td>2022-2023</td>
<td>Compilation of the Contingency Plan document for the Borobudur Temple Compounds</td>
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<td>Prepare Standard Operational Procedure (SOP) for Disaster Management</td>
<td>2022</td>
<td>Preparation of Disaster Management POS documents</td>
<td>• Management Body</td>
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<td>Conducting a disaster emergency response simulation</td>
<td>Routine</td>
<td>Implementation of disaster response simulations per semester at the Borobudur Temple Compounds</td>
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<td>Prepare an emergency response task force when a disaster occurs</td>
<td>2022-2023</td>
<td>Establishment of an Emergency Response Task Force</td>
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# DISASTER RISK

**Objective:** Increase resilience against natural and human disasters by increasing capacity, reducing the risk of negative impacts of disasters on the integrity of the Borobudur Temple Compounds, ensuring the security of the site, visitors and tourism support facilities in the event of a disaster, and ensuring the sustainability of conservation, tourism and economic activities after a disaster.

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</thead>
</table>
|          |          | Additional reinforcement in the Menoreh Hill fault area | 2022-2024 | Reduced disaster risk in Menoreh Hill | • Management Body  
• TNI and Polri  
• Magelang District BPBD  
• Central Java BPBD |
|          |          | Disaster mitigation measures for visitors | 2022-2024 | The implementation of disaster mitigation for visitors | • Management Body  
• Ministry of Health  
• TNI and Polri  
• Magelang District BPBD  
• Central Java BPBD |
|          |          | Updating the supporting data for disaster resilience planning on a regular basis | Routine | Availability of data to support Tangguh disaster plan | • Management Body |
|          |          | Conducted studies and developed a multi-hazards disaster risk reduction strategy for the Borobudur Temple Compounds | 2022-2023 | Compilation of documents and a multi-hazards disaster risk reduction strategy for the Borobudur Temple Compounds | • Management Body |
|          |          | Prepare facilities, equipment, facilities, infrastructure, and human resources related to multi-hazards disaster preparedness | 2022-2024 | Availability of facilities, equipment, facilities, infrastructure and human resources related to multi-hazards disaster preparedness | • Management Body  
• Ministry of Health  
• Ministry of Social Affairs  
• TNI and Polri  
• Magelang District BPBD  
• Central Java BPBD |
## DISASTER RISK

**Objective:** Increase resilience against natural and human disasters by increasing capacity, reducing the risk of negative impacts of disasters on the integrity of the Borobudur Temple Compounds, ensuring the security of the site, visitors and tourism support facilities in the event of a disaster, and ensuring the sustainability of conservation, tourism and economic activities after a disaster.

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<tbody>
<tr>
<td>Planning for multi-hazards disaster recovery before a disaster occurs</td>
<td>Develop an early warning system</td>
<td></td>
<td>2022-2024</td>
<td>Availability of an early warning system at the Borobudur Temple Compounds</td>
<td>• Management Body</td>
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<td></td>
<td>Increase the capacity of the temple buildings by retrofitting in accordance with preservation principles</td>
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<td>2022-2024</td>
<td>The implementation of retrofitting activities at the temple building</td>
<td>• Management Body</td>
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<td></td>
<td>Conducted a study to formulate a multi-hazards disaster scenario at the Borobudur Temple Compounds</td>
<td></td>
<td>2022-2023</td>
<td>Compilation of a multi-hazards disaster scenario document at the Borobudur Temple Compounds</td>
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<td></td>
<td>Conducting focused group discussions to prepare a Pre-Disaster Recovery Plan for the Borobudur Temple Compounds</td>
<td></td>
<td>2022</td>
<td>The holding of a focused group discussion to prepare a Pre-Disaster Recovery Plan at the Borobudur Temple Compounds</td>
<td>• Management Body • Public</td>
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<td></td>
<td>Strengthening networks with all stakeholders to support the implementation of the Pre-Disaster Recovery Plan in the event of a disaster</td>
<td></td>
<td>2022</td>
<td>An agreement was reached with all stakeholders to implement the Pre-Disaster Recovery Plan in the event of a disaster</td>
<td>• Management Body • Ministry of Health • TNI and Polri • Magelang District BPBD • Central Java BPBD • Public</td>
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<td></td>
<td>Carrying out the Disaster Mitigation of the Borobudur Temple Compounds as stated in the Borobudur Visitor Management Plan</td>
<td></td>
<td>2022-2026</td>
<td>Implemented Disaster Mitigation for the Borobudur Temple Compounds</td>
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## DISASTER RISK

Objective: Increase resilience against natural and human disasters by increasing capacity, reducing the risk of negative impacts of disasters on the integrity of the Borobudur Temple Compounds, ensuring the security of the site, visitors and tourism support facilities in the event of a disaster, and ensuring the sustainability of conservation, tourism and economic activities after a disaster.

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<tr>
<td>Mainstreaming of disaster resilience for every level of stakeholders involved in the preservation of the Borobudur Temple Compounds</td>
<td>Ensure the sustainability of conservation, tourism and economic activities as soon as possible after a disaster</td>
<td>Prepare a Business Continuity Plan document for all stakeholders involved in the preservation of the Borobudur Temple Compounds</td>
<td>2023</td>
<td>Preparation of a Business Continuity Plan document for the Borobudur Temple Compounds</td>
<td>• Management Body</td>
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</tbody>
</table>
| | Encouraging, accommodating, and optimizing the sharing of responsibilities as well as the involvement and partnership of all communities and stakeholders | Forming a disaster-aware conservation forum for the Borobudur Temple Compounds | 2023 | The formation of a disaster awareness forum for the conservation of the Borobudur Temple Compounds | • Management Body  
• Ministry of Social Affairs  
• TNI and Polri  
• Magelang District BPBD  
• Central Java BPBD  
• Public |
| | Accommodate and elaborate stakeholder ideas that support the preservation of the Borobudur Temple Compounds | | 2023 | The preparation of an annual stakeholder activity plan for planning and implementing the disaster resilience plan for the Borobudur Temple Compounds | • Management Body  
• Ministry of Health  
• Ministry of Social Affairs  
• TNI and Polri  
• Magelang District BPBD  
• Public |
| | Conducting a discussion forum among stakeholders for the implementation of the Multi-Hazard Disaster Resilience Plan in the Borobudur Temple Compounds | | 2023 | The implementation of a discussion forum among stakeholders for the implementation of the Multi-Hazard Disaster Resilience Plan in the Borobudur Temple Complex | • Management Body  
• Ministry of Health  
• TNI and Polri  
• Magelang District BPBD  
• Central Java BPBD  
• Public |
VI.7 Environmental Pressure

Objectives related to environmental issues are:

1) Improve the quality of the environment and natural resources in the Borobudur Temple Compounds, especially those related to protecting green lines and water resources,

2) Reducing the impact of air pollution, noise, and garbage that will damage temples and disrupt people’s lives,

3) Obtain complete periodic data on environmental changes that occur to anticipate the impact of climate change on the temple,

4) Protecting forests from deforestation.

Policy: controlling activities and facilities that produce air, noise, and waste pollution in an integrated manner in the development regulation program, tourism with a protection perspective, and restoring and improving the quality of the environment and natural resources in the Borobudur Temple Compounds.

In this case, the Borobudur Conservation Center has started by compiling a Strategic Plan for 2020-2024 to overcome these problems by increasing supervision and warning measures for visitors who take destructive actions, monitoring environmental conditions climatology such as rainfall and direction. Wind, as well as monitoring air pollution levels.

To overcome deforestation and reduced water resources as a result of development, the principles of sustainable development in the form of environmental restoration programs through sustainable tourism activities, including the Sustainable Forest Program, are applied. The strategies to be pursued are as follows:

1) Increasing activities to restore (revitalize) the environment and restore natural resources by involving local communities and visitors in tour packages with a view to protection,

2) Developing integrated primary data on climate change, pollution, natural resources, and changes in land use, as a reference in anticipating environmental changes that will affect the condition of the temple and people’s lives,

3) Strengthening effective monitoring and evaluation systems.
## ENVIRONMENTAL PRESSURE

Objective: Improve the quality of the environment and natural resources in the Borobudur Temple Compounds, especially those related to protecting green lines and water resources and reducing the impact of pollution and waste that will damage the temple and disrupt people's lives.

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</table>
| Improve the quality of the environment and natural resources in the Borobudur Temple Compounds | Increase activities to restore (revitalize) the environment and natural resources | Maintain the vegetation of the Borobudur Temple Compounds by paying attention to the types of vegetation which are sourced from the reliefs, texts, and local wisdom | 2022-2026 | The realization of planting vegetation in the Borobudur Temple Compounds in accordance with reliefs, texts, and local wisdom | • Management Body  
• Ministry of Education and Culture  
• Ministry of Environment and Forestry  
• Magelang regency government  
• Local community |
| | | Carrying out reforestation / reforestation, especially in Menoreh Hills with types of plants that can capture and store rainwater so as to improve the quality of community forests and revitalize water sources | 2022-2026 | The realization of reforestation on the slopes of Menoreh Hills | • Management Body  
• Ministry of Education and Culture  
• Ministry of Environment and Forestry  
• Magelang regency government  
• Local community |
| | | Integrating reforestation activities with various sectors | 2022-2023 | Realizing the integration of reforestation activities with various sectors | • Management Body  
• Ministry of Education and Culture  
• Ministry of Environment and Forestry  
• Magelang regency government  
• Local community |
**ENVIRONMENTAL PRESSURE**
Objective: Improve the quality of the environment and natural resources in the Borobudur Temple Compounds, especially those related to protecting green lines and water resources and reducing the impact of pollution and waste that will damage the temple and disrupt people's lives.

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|          |          | Maintaining the environmental quality of the road corridors with shady green lanes and comfortable pedestrian paths to make it easier for people who are doing the pilgrimage on foot | 2022-2026 | Maintaining the environmental quality of corridors with green lanes and comfortable pedestrian paths | • Management Body  
• Ministry of Education and Culture  
• Ministry of Environment and Forestry  
• Magelang regency government  
• Local community |
|          |          | Doing reforestation in the core zone with tree types in accordance with the preservation of the temple | 2022-2026 | The realization of a green, beautiful and quality core zone | • Management Body  
• Ministry of Education and Culture  
• Ministry of Environment and Forestry  
• Magelang regency government |
|          |          | Using renewable energy in the conservation activities of the Borobudur Temple Compounds | 2022-2025 | The implementation of efficient and environmentally friendly energy use | • Management Body  
• Ministry of PUPR  
• Ministry of Energy and Mineral Resources  
• Magelang regency government |
|          |          | Integrated water management to minimize water wastage, reduce excessive groundwater use, and reuse gray water (non-leach waste) | 2022-2025 | The implementation of efficient and efficient water use | • Management Body  
• Ministry of PUPR  
• Magelang regency government |
### ENVIRONMENTAL PRESSURE

Objective: Improve the quality of the environment and natural resources in the Borobudur Temple Compounds, especially those related to protecting green lines and water resources and reducing the impact of pollution and waste that will damage the temple and disrupt people's lives.

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<td></td>
<td>Developing an integrated database of climate change, pollution, natural resources, and changes in land use, as a reference in anticipating environmental changes that will affect the maintenance of temples and people's lives</td>
<td>Conduct periodic monitoring to determine climatological conditions and make a study of its impact on the physical condition of the Borobudur Temple Compounds</td>
<td>Routine</td>
<td>Compilation of a document that studies the impact of climatology on the physical temple</td>
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<td>Conduct a study on the impact and future predictions of pollution at the Borobudur Temple Compounds</td>
<td>2022-2026</td>
<td>Compilation of a document on the impact of pollution in the Borobudur Temple Compounds</td>
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<td>Develop a mitigation system against the impacts of climate change and pollution that may occur</td>
<td>2022-2026</td>
<td>Availability of a mitigation system for the impact of climate change and pollution at the Borobudur Temple Compounds</td>
<td>Management Body</td>
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<td></td>
<td>Strengthening an effective monitoring and evaluation system</td>
<td>Prepare a plan for monitoring and evaluation of environmental conditions and natural resources</td>
<td>2022</td>
<td>The compilation of plans for monitoring and evaluation of environmental conditions and natural resources</td>
<td>Management Body</td>
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<td>Conduct regular monitoring of environmental conditions and natural resources</td>
<td>Routine</td>
<td>Compilation of documents for monitoring environmental conditions and natural resources</td>
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<td>Ensuring the implementation of Environmental Documents is in accordance with the Heritage Impact Assessment</td>
<td>Incidental</td>
<td>The implementation of Environmental Document directives in accordance with HIA on development and utilization plans</td>
<td>Management Body, Magelang regency government</td>
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<td>Forming a task force to maintain the quality of the environment and natural resources.</td>
<td>2023</td>
<td>The establishment of a task force to protect the quality of the environment and natural resources</td>
<td>Management Body, Magelang regency government, Public</td>
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<td>Enforcement of rules regarding cleanliness and order</td>
<td>Routine</td>
<td>Decreased cases of violations of cleanliness and order</td>
<td>Management Body, POLRI, Magelang regency government, Public</td>
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<td></td>
<td></td>
<td>Enforcement of rules regarding cleanliness and order</td>
<td>Incidental</td>
<td>Decreased cases of violations of cleanliness and order</td>
<td>Management Body, POLRI, Magelang regency government, Public</td>
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## ENVIRONMENTAL PRESSURE

Objective: Improve the quality of the environment and natural resources in the Borobudur Temple Compounds, especially those related to protecting green lines and water resources and reducing the impact of pollution and waste that will damage the temple and disrupt people's lives.

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<tr>
<td>Maintain the condition of the cultural landscape of the Borobudur Temple Compounds</td>
<td>Conduct regular monitoring of the quality of the landscape, the quality of the surrounding area and the cultural landscape</td>
<td>Routine</td>
<td>Compilation of documents for monitoring the quality of viewpoints and environmental quality in the Borobudur Temple Compounds</td>
<td>Management Body</td>
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<tr>
<td>Waste management in a reduce, reuse and recycle manner by involving visitors and the community</td>
<td>Routine</td>
<td>Reduced volume of waste disposed of at the TPA</td>
<td>Management Body, Magelang regency government, Public</td>
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<td>Development of environmentally friendly public transportation</td>
<td>2022-2026</td>
<td>Availability of environmentally friendly public transportation</td>
<td>Management Body, Ministry of Transportation, Magelang regency government</td>
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<td>Compiling the EIA and HIA modules to be used in development and utilization plans at the Borobudur Temple Compounds</td>
<td>2022</td>
<td>The compilation of the AMDAL and HIA modules</td>
<td>Management Body</td>
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<tr>
<td>Conservation of community forest areas in the Tangsi sub-watershed</td>
<td>2022-2031</td>
<td>Protected community forest area from threats of physical development</td>
<td>Management Body, Ministry of Environment and Forestry, Magelang regency government, Public</td>
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</table>
Objective, Policies, and Strategy related to

VI.8 Local Communities

Objective: Maintain and improve the quality of life of the people in the Borobudur Temple Compounds Policy: Empowering the community through the development of village potential to improve the quality of life of the community

The strategies that will be carried out are as follows:

1) Supporting and preserving local traditions, customs, culture, and values as intangible assets which are essential as elements forming the cultural landscape,

2) Strengthening non-governmental organizations in the field of preservation of the Borobudur Temple Compounds,

3) Management of the system for supplying and supervising food crop production facilities,

4) Development of community-based tourism
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<tbody>
<tr>
<td>Empowering the community through developing the potential of the village to improve the quality of life of the community</td>
<td>Supporting and preserving local traditions, customs, culture and values as intangible assets that are important as elements of the shaping of the cultural landscape</td>
<td>Assistance and fostering of people aware of creative tourism</td>
<td>2022-2026</td>
<td>An increasing number of people are aware of creative tourism</td>
<td>• Management Body • Ministry of Creative Economy • Magelang regency government • Public</td>
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<td>Developing folk art stages in several locations as a place for local cultural expression and the development of local artists’ creativity</td>
<td>2022-2024</td>
<td>The availability of a folk art stage as a place for local cultural expression and the development of the creativity of regional artists</td>
<td>• Management Body • Ministry of Education and Culture • Ministry of PUPR • Magelang regency government • Public</td>
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<td>Dissemination of the World Heritage of the Borobudur Temple Compounds</td>
<td>Routine</td>
<td>The implementation of the socialization of the Borobudur Temple Compounds</td>
<td>• Management Body • Public</td>
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<td></td>
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<td>Give appreciation to those who preserve and protect local wisdom</td>
<td>Routine</td>
<td>Increasing the number of people who receive awards</td>
<td>• Management Body • Ministry of Education and Culture • Magelang regency government • Public</td>
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<td>POLICIES</td>
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<td>Strengthening non-governmental organizations in the field of</td>
<td>Strengthening rural economic institutions</td>
<td>2022-2031</td>
<td>Availability</td>
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<td>preservation of the Borobudur Temple Compounds</td>
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<td>• Ministry of cooperatives and SMEs</td>
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<td>institutions</td>
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<td>Increase the capacity of local community</td>
<td>Increase the capacity of community businesses in terms of quantity and</td>
<td>2022-2026</td>
<td>Increase the</td>
<td>• Management Body</td>
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<td>businesses typical of Borobudur</td>
<td>quality</td>
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## LOCAL COMMUNITIES
Objective: Maintain and improve the quality of life of the people in the Borobudur Temple Compounds.

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## LOCAL COMMUNITIES

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Chapter 7

MONITORING AND EVALUATION
In line with the Borobudur Temple Compounds’ designation as a World Heritage, Indonesia’s responsibility is to conserve the Borobudur Temple Compounds and its area. Care and maintenance cannot be separated from UNESCO’s supervision as an institution that houses cultural heritage recognized by the world because the Borobudur Temple Compounds is an asset with essential values.

The Borobudur Temple Compounds location, which is located on a hill, is very vulnerable to environmental factors, weather and climate. Weather and climatic factors are natural factors that influence and can cause damage to the temple building and the surrounding environment. Therefore, to protect the Borobudur Temple Compounds, it is necessary to carry out maintenance and various monitoring and observation activities to observe developments in the physical temple and its surroundings.

Regarding the maintenance of Borobudur Temple, Mendut Temple, and Pawon Temple, the Borobudur Conservation Center conducts monitoring and evaluation activities which are carried out on an ongoing basis, among others:

1) Monitoring and evaluation of temple stone maintenance activities include: observation of waste contamination, leaks, alveoli, salt deposits, growth, corpses of microorganisms, rock cracks, cementation, exfoliation, postules, vandalism,

2) Monitoring and evaluating the stability of the temple and hill structures, activities include: measurement of control points, sample points, cracking meters, wall slopes, inclinometers, earthquake monitoring with accelerographs, data analysis and processing,

3) Environmental monitoring and evaluation activities include climate observation, registration of flora in core zone of Borobudur Temple, chemical analysis of control tub water, toxicological testing of control basin water for food plants and fish, testing of water quality in resident wells, measuring noise as well as data collection and flora mapping in core zone of Borobudur Temple,

4) Monitoring and evaluation of geohydrology, the activities include observation of the depth of the inclinometer groundwater level, the water level of the resident's well, the depth of the infiltration well, the water meter, the effectiveness of the filter layer,

5) Monitoring and evaluation of the use of the temple, including visit level, visitor interpretation, visitor satisfaction level,

6) Monitoring and evaluating the area, including demographic monitoring, development of development infrastructure, land use, building facades, and perspective changes.

The Borobudur Conservation Office is responsible for ensuring the management and preservation of world heritage per the UNESCO convention on protecting world cultural and natural heritage (Convention Concerning the Protection of World Culture and Nature Heritage) 1972. UNESCO carries out monitoring and evaluation through periodic reporting, reactive monitoring, and state mechanisms, of conservation report.
VII.1 Spatial and Development Pressure

As an institution whose duties and functions are to maintain the Borobudur Temple Compounds, the Management Body will carry out activities aimed at monitoring and evaluating developments in the temple and its surroundings. One of the critical values is the beauty of the panorama. The Borobudur Temple Compounds landscape is essential to protect because it is an attribute of the Borobudur Temple Compounds as a World Heritage. Therefore, it is necessary to observe the area.

The purpose of carrying out this activity is to find out everything in the area or developments in the Borobudur Temple Compounds that aims to protect the area. Activities carried out include:

Land Use

In 2014, Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and its surroundings was issued, which regulates the implementation of control and spatial use in the Borobudur Temple Complex, including the directions for the Zoning Regulations SP1 and SP2; licensing, incentives, disinsection and imposition of sanctions. Population pressure and development in the Borobudur Temple Complex can be a threat to the temple’s maintenance. Therefore, development in SP-1 and SP-2 must be under Presidential Regulation No. 58/2014. To find out the changes in land functions in the Borobudur Temple Complex, monitoring activities on land use changes need to be carried out. This monitoring target is the land in the Borobudur National Strategic Area, especially the SP-1 area covering an area of 1,344 HA. Meanwhile, the target to be achieved in this monitoring is mapping land-use changes in new buildings, including BTS that have occurred in agricultural areas, including rice fields, former lakes, and river boundaries.

Building Façade

The purpose of the building facade monitoring activity is to observe the Palbapang-Borobudur corridor building facades. The monitoring target is data collection on all building facades located on the roadside of the Palbapang-Borobudur corridor. The method used is field observation and data collection on the buildings’ shape on the roadside of the Palbapang-Borobudur corridor.

Changes in Landscape

The purpose of monitoring is to determine changes in the Borobudur Temple Compounds’s perspective when viewed from the Borobudur Temple’s top. The benefit of monitoring is to get the condition of the perspective covering PA-1 and PA-2. The data collected is in the form of data on changes in the perspective of the Borobudur Temple Compound when viewed from the top of the Borobudur Temple.
The implementation of monitoring and evaluation of the Borobudur Temple Compounds conservation includes two crucial aspects: archeological and technical. The archeological aspect is the preservation of archeological values that emerged when the temple was erected, used, and abandoned by its community. Meanwhile, from the technical aspect, what is expected is the preservation of the Borobudur, Mendut, and Pawon temples' structures, which is shown by the preservation of the andesite stones that make up the temple structure.

Monitoring and evaluation related to the temple building's stability begins with collecting primary data, including direct measurement of the required parameters and secondary data, which is the result of restoration data, both the first and the second. From this data collection, a complete evaluation of the stability of the temple will be carried out. The monitoring and evaluation results will later be a result that will be followed up in the efforts to preserve the temple so that this building remains magnificent throughout the ages.

**Leaks**

This monitoring aims to observe leaks in the temple walls and balustrades in the temple hallway. This leakage was caused by weathering of the temple stones, including the stones' quality, which was influenced by the level of porosity, environmental factors around the temple, and human factors during the temple maintenance process. The use of chemicals during treatment also affects the stones.

**Alveolus**

This monitoring aims to observe and record the alveoli holes in the temple stones, especially on the stone walls, hallway balustrades, and temple stupas. Alveolus are boils on the surface of rock that have broken and formed holes on the surface.

**Postule**

The purpose this monitoring is to observe and record postule on the temple stone. Postule is a type of corrosion that occurs on the surface of temple rocks caused by chemical and biological processes.

Postules are formed because the rock's pores are filled with dust and spores of algae or moss, then the pores are closed by salt deposits. The spores of algae or moss in the pores grow. The growth of these organisms will push the pore walls and push the surface of salt deposits so that it will form a kind of boil on the rock surface. This boil-like shape is called the postule. Furthermore, the postule will burst and form a larger pore hole called the alveoli.

**Stone Cracks**

This monitoring aims to observe and record the temple stones' cracks on the temple terraces' walls, balustrades, and stupas. The form of cracks is generally filled with salt deposits or has undergone a reconnection process. Some parts of the temple still have some cracks; the cause may be vertical or horizontal mechanical movement or uneven pressure or other causes such as too heavy a visitor load.
**Sediment**

Sediment monitoring aims to observe and record temple stones’ sedimentation on the hallway walls and terrace stupas. Sedimentation is the process when sediment grains are bonded by other materials, which can come from groundwater or the result of dissolving minerals in the sediment or the rock itself. Temporary materials can be carbonate (CO3), silica (Si), or oxide (Fe). Sedimentation is a type of corrosion of temple stones that has occurred over a long period. However, until now, there has not been found the most appropriate method for handling this problem.

**Exfoliation**

Monitoring of exfoliation aims to observe and record the exfoliation process on the temple stones. The exfoliation on the rock surface has a small stripping diameter, only in the range of millimeters to centimeters, but causes the carving to be unclear even though the original sculptural shape can still be seen. In other cases, the exfoliation occurs so that the original shape of the relief sculpture can no longer be known.

There is also flaking that occurs on the rock’s surface so that the stone looks like it has been crushed/looks like it is worn out.

**Salt Deposits**

This monitoring aims to observe and record salt deposits on temple stone on the walls, hallway balustrades, and temple stupas. Salt deposits on the rock’s surface look like streams of water drying on the rock surface. This form is an accumulation of crusted salt deposits on the rock surface. Salting found in a rock gap or filling in a cracked part of the rock so that it looks like cement is attached to the two stones in between (sedimentation).

**Temple Control Point Measurement**

This monitoring aims to determine the horizontal movement of the surface soil and the height of the temple structure. A control point is a point for monitoring deformation at the location where the point is located. In the temple structure, several control points were made, which were marked by the installation of yellow metal on the rock surface.

**Inclinometer Measurement**

This measurement is used to determine the horizontal motion of the ground. This measurement was carried out to analyze the post-restoration inclinometer data to date. The aim is to determine whether or not there is creeping that occurs in the temple area. The benefit of this measurement is to determine the soil condition of the temple base hill. Suppose there are ground movements of the hill under the temple that can affect the temple structure's condition. In that case, it will be detected early so that anticipatory steps can be taken to avoid further damage.

For this study not to deviate from the target and focus on the subject matter, it is also necessary to define the boundaries and scope of the study. The study will be carried out to analyze inclinometer data at the Borobudur Conservation Office after the second restoration to date.
Experts have conducted research that shows that the hill condition under Borobudur Temple is one of the causes of damage to Borobudur Temple. The temple's base hill's soil structure is a layer of clay soil; one of its characteristics is that it has a very low bearing capacity / compressive strength when exposed to water, which causes the walls of the temple to decline.

It is necessary to install a monitoring device on top of the Borobudur Temple by considering these conditions. The inclinometer itself is a device consisting of a casing in the form of an iron pipe buried in the ground at a certain depth and a transducer used to retrieve data that is then processed and aims to determine the subsurface ground motion in the X and Y directions.

**Measurement of the Movement of the Gap in the Temple Wall (Crackmeter)**

This monitoring and evaluation is to determine the movement of the gaps between the stones on the temple walls. The change in the gap between the rocks is calculated in Centimeters-Micron units.

**Wall Slope Measurement**

This measurement is carried out to determine the temple walls' level of slope in the horizontal direction of the X and Y axes. Measurement of the veranda and walls' slope is measured manually by using strings inserted in a glass filled with oil so that the position of the hanging threads is not carried away by the wind. Then the distances determined by their position are measured with a roll meter.
Deformation measurement with GPS

This measurement is carried out to determine the horizontal and vertical movements in the X, Y, and Z directions of the temple's stone structure. Geodetic observation methods for monitoring the temples have been carried out periodically since the completion of the major restoration in 1983, namely by carrying out measurements of polygons and flatters separately. Meanwhile, the development of positioning technology using satellite data (GPS) provides the opportunity for simultaneous 3D positioning with better accuracy.

Comprehensive analysis of GPS observation data, terrestrial observation data, and integrating the two data need to be optimized to obtain more accurate results. This study aims to determine Borobudur Temple's stability based on the integration of GPS observation data and the terrestrial-monitoring net of the temple deformation.

The data used in this study are GPS observation data, horizontal net measurement data using the polygon method, and vertical monitoring net height difference measurement data (leveling). Stability analysis is carried out by determining the magnitude and rate of the monitoring points' horizontal and vertical displacement. Deform the static model's deformation analysis applied to each of the observational data to determine the shift in horizontal and vertical positions between the scales. Meanwhile, the kinematic model analysis is applied to the GPS observation data to obtain the vector displacement velocity. The results of this analysis are used to predict the GPS monitoring points' position according to the observation of terrestrial data. The integration of GPS and terrestrial observation data is then carried out with the Procrustes solution. Stability analysis using the geometric method was carried out for GPS observation data and terrestrial observation data separately and from the integration results. The analysis results using this geometric method are then compared with the results of existing geotechnical studies qualitatively.
Borobudur, Mendut, and Pawon Temples are three temples included in the Borobudur Temple Compound inscribed by UNESCO as World Heritage. As a World Heritage, all conservation activities must be regulated and carried out following the provisions not to threaten their preservation. The use of Borobudur, Mendut, and Pawon temples must be under Law Number 11 of 2010 concerning Cultural Heritage. The scope of use includes religion, social, education, science, technology, culture, tourism, and utilization through reproduction.

1) Actions that threaten the maintenance of the temple, namely:
   1) Climbing the stupas, walls, balustrades of the temple, either directly or using tools,
   2) Smoking in the temple area,
   3) Littering,
   4) Scribble stones or temple walls with any means,
   5) Other activities that can disturb the condition of the temple.

Restrictions to build facilities and infrastructure and not to use heavy equipment in the core zone are to maintain the Borobudur Temple Compounds' structural condition. If these activities are carried out, they can cause damage to cultural heritage buildings, and the Ministry of Education and Culture has the right to revoke permits and even stop activities. The purpose of monitoring the temple’s use is to maintain the temple’s maintenance from exploitation activities that can have a negative impact. Several activities are carried out to monitor and evaluate the use of the temple, including:

### Vandalism
Vandalism is an act of destroying and destroying works of art and other valuables, such as natural beauty. Visitors often do inappropriate activities during their visit to the temple, including climbing the temple walls and stupas, throwing gum rubbish on the stone surface, droplets of wax from religious activities, scratches on the surface of the stones that make up the temple structure, by using wax/crayons/lipstick / other coloring agents, a small package tucked into a wall gap, and coins tucked into an open temple gap.

### Noise Level Measurement
Music concerts or other events that use an extensive sound system are often held at Borobudur Temple and other temples. It raises concerns among conservationists of cultural heritage about the harmful impact of loud voices generated by speakers on cultural heritage. It is necessary to measure the vibrations in the temple during concerts or other events using an extensive sound system to determine the impact. One of the factors that determine the magnitude of the vibrations arising from a vibration source is the attenuation and natural frequency. If the vibration source gets closer to the temple's natural frequency, the vibration resonance will be even greater. To be able to prove this, the noise level was measured. The method of measuring sound noise levels uses a sound level tool in Borobudur Temple's body, Borobudur Temple yard, at the performance location, in the Mendut Temple yard, and Mendut Temple. This measurement is carried out incidentally. The target to be achieved is the detection of noise levels.
Visitation Rate and Visitor Profile
The use of the Borobudur Temple Compounds in tourism has both positive and negative impacts, especially related to the maintenance of the temple's physical condition. The Borobudur Conservation Office strives to preserve this World Heritage to be still enjoyed by future generations. It is necessary to monitor visitation and visitor profiles to know the level of visits at the Borobudur Temple Compound.

Site Interpretation
The Borobudur Temple Complex as a World Heritage has the potential as a historical tourism area. Many historical values can be conveyed and known to become education that leads to human morals in the world. Many people do not know the historical values contained in the Borobudur Temple Complex. Monitoring of site interpretations is compiled to determine the level of experience visitors to the temple. The targets of this monitoring are visitors to Borobudur Temple, Mendut Temple, and Pawon Temple.

The targets to be achieved include:
1) Knowing the level of visits to information centers, audio-visuals, museums, and information boards,
2) Knowing the number of guides, the percentage of visitors who use guide services, and the quality of the guide services,
3) Determine the level of visitor satisfaction at the museum,
4) The methods used were questionnaires, field observations, and interviews.

Visitor Behavior and Distribution
The purpose of this monitoring is to obtain information about vandalism, distribution, or distribution of visitors. The targets for monitoring the behavior and distribution of visitors include: the distribution pattern of visits, the number and location of vandalism cases, the flow and timing of visits, and visitor behavior. The method used is in the form of field observations.

Visitor Satisfaction Level and Facility Evaluation
The aim is to determine visitor satisfaction with the management of the temple and garden and its facilities. The monitoring targets included map data on the terminal facilities’ location, questionnaires for 400 visitors to Borobudur Temple, and 50 visitors to Mendut and Pawon Temples. The method used is in the form of collecting data through questionnaires.

Other uses of Borobudur Temple Compounds
The aim is to determine the intensity and type of utilization activities at Borobudur Temple, Mendut Temple, and Pawon Temple. The target to be achieved in this monitoring is the monitoring of licensing data. The methods used include monitoring originating from licenses issued by the competent authority.
Borobudur Temple is the leading tourist destination in Indonesia, so that from year to year, the number of visits is increasing. Therefore, its sustainability must be maintained, including the threat of damage by disasters. As a world heritage site, Borobudur must have a disaster management system.

**Volcano**

The Borobudur Temple Compounds is located at an altitude of 265 M above sea level and in a hilly plain landscape in the Kedu area. To the east, there are Mount Merapi and Mount Merbabu; to the northwest, there are Mount Sumbing and Sindoro, while the Menoreh Mountains border this area from west to south. Among these volcanoes, Mount Merapi (± 2,968 m asl) is an active volcano that often causes eruptions that have been active since 1822 until now. No less than 33 eruptions with short periods of rest or rest (on average no more than 3.5 years), even according to some volcanic experts, Merapi erupted violently in 1006, which destroyed the ancient Mataram kingdom, which then moved to eastern Java.

Mount Merapi’s eruption has caused many disasters starting in 1672; there were 5,691 deaths, 1,480 houses destroyed, and 2,218 livestock died, not including the victims due to the lava disaster. The most significant eruption of the 20th century occurred in 1930, which resulted in 1,369 deaths, 1,109 houses destroyed, and 2,140 livestock died. In 1994, the eruption of Merapi occurred, with 64 people killed and 25 houses destroyed. A large eruption of Mount Merapi occurred again in 2010, which resulted in 347 casualties, 258 injured, and 410,338 people displaced. Other losses due to the eruption of Merapi are the death of livestock, damage to land, death of crops, and damage to buildings.

In general, volcanic eruptions pose a danger to human life and the environment. Hazard is a series of events caused by nature, humans or both resulting in victims and human suffering, loss of disaster assets, environmental damage, damage to public facilities and infrastructure, as well as disruption to the order of community life and national development, which cannot be overcome by local capabilities and need help and assistance (National SAR Guidelines).

Volcanic hazards are divided into primary hazards and secondary hazards. Primary hazards of direct hazards are based on the direct impact of the eruption products, including lava flows, pyroclastic flows, free-fall deposits, and gases. Secondary hazards or indirect hazards based on secondary consequences of eruptions include lahars, mass movement (slumps, slides, subsidence, block falls, debris avalanche), tsunamis, and acid rain/ash rain.

Based on the map of the Mount Merapi prone areas, the Borobudur Temple Compounds is outside the danger area of Mount Merapi. However, the impact of Mount Merapi activities is also felt in the Borobudur area. One example is Mount Merapi’s eruption in 2010, accompanied by volcanic ash rain to the Borobudur area. As a result, Borobudur Temple was covered by volcanic ash with a thickness of up to 2.5 cm. The same thing happened to Mendut and Pawon temples. The volcanic ash and sand that covered the temple turned out to contain sulfur compounds with acidity levels that could endanger the andesite stones that make up the temple structure.
Land Movement

Soil movement is one of the geological processes that occur due to influences between several conditions, including morphological, geological, geological structures, hydrogeology, and land use conditions. These conditions influence each other to create a slope condition that tends or has the potential to move. This slope condition is referred to as a prone condition to move. The definition of vulnerable means that it has the potential or tends to move but has not yet experienced movement. A slope that has been categorized as a slope-prone-to-movement is a slope with a mass of soil/rock ready to move, but it is not sure when the movement will occur. Movement on a new slope can occur if there is a trigger for the movement. Movement triggers are natural or non-natural processes that can change a slope from being vulnerable (ready to move) to starting to move. These triggers are generally in the form of rain, vibrations, or human activity on the slopes, or the process of entering water into the slope through a leak in the channel/pool.

Pyroclastic Rain

Merapi volcano is very famous for its periodic eruptions with a return period of 2-8 years. Every big eruption is always accompanied by pyroclastic rain (ash rain). When the Merapi Volcano erupted with a strong/fierce as happened in 2010, and the direction of the wind to the west, the Borobudur Temple Compounds was certainly covered by pyroclastic material, ranging from ash to sand, the thickness of which depends on the magnitude of the eruption and wind speed. The threat of hot pyroclastic material covering the temple will affect the stones' condition, possibly damage the reliefs. It can close the drainage channels in the temple building. When the rainy season arrives, if the roofing/drainage of the temple building is not good, there will be puddles that can trigger the temple walls' breakdown.

Hot Clouds

Apart from pyroclastic rain, Mount Merapi's eruption characteristics are hot clouds (local term wedhus gembel). Hot clouds do not necessarily occur in every eruption, but they have happened many times. Hot cloud glides that have occurred have varied ranges of distance, sometimes only up to the middle slope (as happened in 1994), sometimes as far as happened in 2010. The direction of glide varies, depending on the position of the vent. Even though Borobudur Temple's distance is still beyond the hot clouds that have occurred but in a powerful eruption, the possibility is still a threat with low probability.
Land Movement

Soil movement is one of the geological processes that occur due to influences between several conditions, including morphological, geological, geological structures, hydrogeology, and land use conditions. These conditions influence each other to create a slope condition that tends or has the potential to move. This slope condition is referred to as a prone condition to move. The definition of vulnerable means that it has the potential or tends to move but has not yet experienced movement. A slope that has been categorized as a slope-prone-to-movement is a slope with a mass of soil/rock ready to move, but it is not sure when the movement will occur. Movement on a new slope can occur if there is a trigger for the movement. Movement triggers are natural or non-natural processes that can change a slope from being vulnerable (ready to move) to starting to move. These triggers are generally in the form of rain, vibrations, or human activity on the slopes, or the process of entering water into the slope through a leak in the channel/pool.

Cold lava flows that are thought to have a threat (although unlikely) to the Borobudur Temple Compounds originate from river flows on the western and northwestern slopes of Mount Merapi, such as from Pabelan River, Blongkeng River, White River, and Batang River. The threat of rain lava passing through the four rivers does not directly threaten the Borobudur Temple Complex because it is blocked by Kali Progo, steep and plunging cliffs. Even so, there is the possibility to be affected side by side. When the lava flow with a large amount of sediment loads reaches Kali Progo, it will change the river's flow pattern. Changes in river flow patterns can result in erosion and riverbank landslides. If erosion and cliff landslides last a long time, the affected area will be wider, possibly reaching Borobudur Temple. Mendut and Pawon Temples have a greater likelihood of being affected by cold lava, given their location closer to the river's flow. The Progo River on the east side shows the remains of the old river channels to indicate that cold lava flows have been traversed.

Based on the analysis of the geomorphic process and location analysis, it can be stated that Borobudur Temple has a minimal level of threat and even tends to be safe against cold lava originating from the slopes of Mount Merapi.

Flash Flood

Flash floods in the Kedu Basin can occur based on natural environmental conditions, including high rainfall, high relief, steep slopes, intensive agricultural land, and relatively thin forest cover. Flash floods that may threaten the Borobudur Temple Complex originate from the Sileng watershed. The physical condition of the land in the Sileng watershed, which is located in the Menoreh Hills, has fulfilled most of the supporting factors for flash floods, namely steep slopes, intensive agricultural land, and relatively thin forest cover. The factor that has not been fulfilled is the intensity of rainfall.

Flash flood events require high rainfall intensity. As a result of global climate change, there is a tendency for the number of rainy days to be shorter and the intensity of rainfall to be higher. Based on the trend of changes in rain, flash floods may originate from Menoreh Hills.
Landslides

Most of the Kedu Basin area is prone to landslides, including areas in the Borobudur Temple Complex. The threat of landslides that may occur in the area comes from Menoreh Hills. The physical condition of Menoreh Hills, as described in the previous section, is also a factor in the threat of landslides. Multilevel faults in the Menoreh Hills are a phenomenon that allows large landslides to occur. Each fault block in a multilevel fault has a slope notch on the fault line, which can be a medium for the entry of surface water.

Surface water that enters through the slope notch on the fault block may trigger an avalanche. Although the probability of a large landslide occurring from Menoreh Hills is small, it should not be ignored. The multilevel faults in the Menoreh Hills are the result of tectonic processes, which often recur. Tectonic processes are often followed by earthquakes and become one of the triggers for landslides. The threat of landslides in the Borobudur Temple area still needs to be watched out.

One other type of landslide that may occur in the Borobudur Temple Complex is subsidence. The land around the Borobudur Temple building is covered by tight grass and arranged with terraces. The terraced land and tightly covered grass can absorb rainwater into the soil effectively. Rainwater that enters the soil in large quantities is very good for maintaining hydrological conditions, provided that the drainage or drainage is good. Without proper regulation, the large amount of water in the soil will increase the load, one of the causes of landslides. On land where the infiltration process is good, and the land-forming material is landfill material of various sizes, it is possible to trigger the subsidence process. The fill material varies in size, causing varying porosity. The variety of pores in the fill material provides the opportunity for faster water infiltration. Rapid infiltration can remove and transport fill material below the land surface. The possible consequence is subsidence; if it occurs in the long term, it will become a threat to the temple building. Therefore, if there is a rapid flow into the ground around the temple building, this needs to be prevented.

In addition to threats originating from the physical conditions of the Kedu Basin, many anthropogenic threats are caused by humans. It is possible given the relatively high population and population growth, mining sand and rock rife on riverbeds and in hills, land use that is not following its designation can become a threat to the Borobudur Temple Complex, which requires further study.

Epidemic/Pandemic

Apart from natural disasters, the Borobudur Temple Compounds is also prone to non-natural disasters, namely extraordinary events such as endemic / pandemic outbreaks. The coronavirus or Coronavirus Disease (COVID-19) outbreak in several regions in Indonesia impacts the tourism sector, including in the Borobudur Temple Compounds. Physical restrictions are needed for visitors to tourist attractions to reduce the spread of the Corona Virus. Therefore, various tourist objects were closed, including the Borobudur Temple Compounds.
The monitoring and evaluation is an effort to maintain the temple's physical conditions and its surrounding environment. In connection with these activities, the implementation of maintenance needs to be based on the principle of conservation, namely the science of materials and technology, because conservation activities cannot be separated from chemicals.

Chemicals have long been used in conservation activities to protect the physical building against the effects that can cause further damage or deterioration. It proves to be effective, but the next problem is whether the chemicals used affect the surrounding environmental conditions or not.

UNESCO has issued a provision to no longer use chemicals in conservation activities because it will be dangerous for maintaining the temple and the environment. As a follow-up to these recommendations, chemicals were stopped and then replaced with traditional methods. For example, cleaning moss, which previously used chemicals, is replaced by mechanical means, which is cleaned manually using a palm fiber broom.

For this reason, environmental impact analysis is needed in monitoring every activity carried out as an effort to maintain the temple and the environment around the temple.

Environmental pressure monitoring aims to identify and evaluate the environmental condition in the temple's core zone and its surroundings. The purpose of these activities is to provide direction and consideration in the event of impacts (especially negative ones) that may affect the condition of the cultural heritage and its environment. Impact monitoring activities include:

**Waste**

Waste is a factor that can decrease the level of conservation of the Borobudur Temple Compound. It is necessary to carry out monitoring related to waste in the temple's structure and yard to prevent this. This activity is intended to determine the volume and distribution of waste in the Borobudur Temple's core zone.

If the volume and distribution area are known, then follow-up activities and waste handling efforts will be technically arranged to minimize its negative impacts on the temple. In this monitoring, observation is carried out by collecting waste in the temple and its surrounding. Waste discarded by visitors, both in trash bins and scattered on the lawn, is collected into garbage collection sacks. After being collected, then the total amount of waste is calculated in M3 units. Collected waste is separated between easily degraded and not easily degraded waste. Waste that is easily degraded consists of leaves, carcasses of animals, and organic waste from living things.

Meanwhile, waste that is not easily degraded is waste consisting of plastic, paper, tissue, cigarette butts, and chewing gum. The treatment of the two wastes is different. Plastic waste is considered to have more economic value.
Waste monitoring aims to determine the volume of waste in the structure and yard of the temple. Based on the results, the most common type of waste found in the temple structure is inorganic waste, while the temple grounds are dominated by organic waste.

**Micro Climatology Measurement**

Climate is the average weather condition over a large area and is determined based on calculations over a long period (11-30 years). To monitor weather conditions at the Borobudur Temple Compounds, the Meteorology and Geophysics Agency installed a weather observation station on the Borobudur Conservation Office grounds with data collection carried out every day by the Borobudur Conservation Center. The purpose of micro-climatological measurements is to identify and evaluate the microclimate for one year. Meanwhile, this measurement's benefit is to determine the conditions of the microclimate in the core zone of Borobudur Temple. This measurement is carried out every day, from January to December.

The parameters observed include: air temperature, wind speed and direction, relative air humidity, the amount of sun exposure, the intensity of solar radiation, and the intensity of vaporization.

**Testing the Water Control Tub**

Control tub is a complete hollow tub with a lid on it, which generally needs to be placed in a drainage channel. Also, the control basin needs to be located in case of a change in the channel's size and a change in the slope of the channel. The control tub is located in the Borobudur Temple drainage channel. The function of the control tub is to simplify maintenance and prevent blockages in the drainage channels. Besides, if there is sediment, it can be controlled and cleaned easily. The purpose of testing control tub water is to determine the physical properties and chemical composition of the water of the Borobudur Temple's surrounding area. With this test, we can find out the water content that enters the structure and hill of Borobudur Temple.

This test is carried out once a year using water content data in 7 (seven) control tanks and three infiltration wells on the north side, two tanks on the west side, one tub on the south side, and one tub on the east side of Borobudur Temple.

**Air Quality Measurements Including Sox and Nox**

This measurement aims to determine the air quality, including the Sox and Nox content in the Borobudur Temple Compounds. It is hoped that this measurement will be carried out in all predetermined locations so that the air quality can be measured. Air sample data was taken and then analyzed—the method of taking air samples using a flow meter pump and then analyzed using a spectrophotometer. Air quality measurements are carried out once a year.
Vegetation Data Collection and Mapping in the Core Zone

The vegetation in the Borobudur Temple Complex is used as a source of food, drink, medicine, buildings, or decoration. At Borobudur temple, there are reliefs depicting dozens of valuable plants directly related to daily needs, including rice, barley, coconut, breadfruit, jackfruit, banana, durian, and mango. Reliefs of medicinal plants include frangipani, mangosteen, hibiscus, and amethyst. Data collection and mapping are carried out to preserve the existing vegetation in the Borobudur Temple Compound. The aim is to determine the type and amount of vegetation density in the core zone of Borobudur Temple, Mendut Temple, and Pawon Temple. This activity targets maps, types, and the amount of vegetation in the core zone of Borobudur Temple, Mendut Temple, and Pawon Temple. The target to be achieved is the identification and evaluation of vegetation type data. The methods used are field surveys and mapping.

Depth of Groundwater

The purpose of this monitoring is to determine the depth of groundwater level elevation of resident wells. By measuring this and the height of the place from the sea level, we can know the direction of groundwater flow by contouring the groundwater level of the resident's well in the Borobudur Temple Compound can. Based on previous years, groundwater flows from the west to the east and southeast and eventually reaches the Progo River. The groundwater flow in the hill of Borobudur Temple is based on the inclinometer; when compared to groundwater in the surrounding population areas, it has a different aquifer. It can be seen from the different groundwater flow patterns between the Borobudur Temple hill and the surrounding area.

Depth of Infiltration Well

This monitoring aims to determine the level of silting of infiltration wells to determine the effectiveness of infiltration wells and determine the rate of silting due to mud carried by water flow.

Water Meter Monitoring

The purpose of this monitoring is to determine the amount of runoff water discharge and the estimated water entering the hill soil of Borobudur Temple to help smooth flow and determine the volume of runoff water on the temple body and water entering the hill soil.

Filter Layer Effectiveness

The purpose of this monitoring is to determine the effectiveness of the filter layer. Activities carried out in this monitoring include cleaning the filter layer, observing the water discharge, and observing the filter layer water's clarity.
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Peraturan Pemerintah No. 26 Tahun 2008 tentang Rencana Tata Ruang Wilayah Nasional

Peraturan Pemerintah Nomor 10 Tahun 1993 tentang Pelaksanaan UU BCB

Peraturan Pemerintah Nomor 26 Tahun 2008 tentang Rencana Tata Ruang Wilayah Nasional

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Keppres Nomor 1 tahun 1992 tentang Pengelolaan Taman Wisata Candi Borobudur dan Taman Wisata Candi Prambanan Serta Pengendalian Lingkungan Kawasannya.
### VIII APPENDIX
#### VIII.1 SUMMARY OF UNESCO WORLD HERITAGE COMMITTEE DOCUMENTS RELATED TO BOROBUDUR TEMPLE COMPOUNDS

<table>
<thead>
<tr>
<th>YEAR</th>
<th>DOCUMENT NUMBER</th>
<th>SUMMARY</th>
<th>PRESERVATION ISSUE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>SC-91/CONF.002/15</td>
<td>Borobudur Temple Compounds inscribed in the World Heritage List number C-592</td>
<td>1. Avoid any future actions or activities that would unnecessarily disturb the traditional appearance of the site which would devalue the dignity of the site.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>3. Develop mid-term (5 year) and long-term (10 year) strategic planning policies.</td>
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<td></td>
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<td>4. Review of information management system.</td>
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<td>5. Develop tourism management policy to ensure protection of site.</td>
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<tr>
<td></td>
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<td></td>
<td>6. Develop information material including multimedia material.</td>
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<td></td>
<td></td>
<td></td>
<td>7. Further research and publication on stone conservation.</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>WHC-95/CONF.201/12 State of Conservation Report</td>
<td>This Monitoring is a follow-up to the request for support made by the Governor of Central Java to the UNESCO in 29th January 2003 for the development of a shopping center of 4 acres in Zone III, adjacent to Zone II, about 880 m of Borobudur Temple. As a respond to the development proposal, The World Heritage Center and ICOMOS carried out reactive monitoring.</td>
<td>1. Deforestation in Zone V due to population pressure and urbanization.</td>
<td></td>
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<tr>
<td></td>
<td><a href="https://whc.unesco.org/archive/1995/whc-95-conf201-12e.pdf">https://whc.unesco.org/archive/1995/whc-95-conf201-12e.pdf</a></td>
<td></td>
<td>2. The problem of the monument’s surface persists as one of the major problems. Apart from lack of conservation, climate changes to the environment had worsen the problem.</td>
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<td></td>
<td></td>
<td></td>
<td>3. Micro scale climate change is caused by among others then the clearing of trees, shrubbery and grass that is set out as a parking lot for VIOs in Zone I.</td>
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<td></td>
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<td>4. In Zone 2, the numbers of commercial vendors has been allowed to grow uncontrolled from the originally planed 70 kiosk to approximately 2000. This has led overcrowding, solid</td>
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<td></td>
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<td></td>
<td>1. To evaluate and possibly redefine the World Heritage protective boundaries and management guidelines pertaining to Zones 4 and 5.</td>
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<td></td>
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<td></td>
<td>2. Removing the new, paved parking lot from Zone 1 and restore the area to grass and shrubbery.</td>
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<td></td>
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<td></td>
<td>3. Minimize vehicular access to Zone 1, consider removing vehicular parking from Zone 2, and ban major new road developments within Zone 3, although improvement of existing roads may be permitted. As with all development proposals affecting the property, should be consulted with the World Heritage Committee.</td>
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<td></td>
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<td>4. To organize and control the informal commercial activities within Zone 2.</td>
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<td></td>
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<td></td>
<td>5. To undertake a socio-economic study to plan for a more viable commercial and marketing strategy of long-term benefit to members of the surrounding community. The long-term strategy for</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>WHC Document</td>
<td>Main Threat(s) to the World Heritage</td>
<td>Recommendation(s) and Request(s)</td>
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<tr>
<td>2004</td>
<td>WHC-04/28.COM/15B.59 State of Conservation Report</td>
<td>Waste pollution, and also increase air pollution. 5. In Zone 3, the commercial development zone, various proposals are being suggested to develop this area with shopping complexes and other commercial tourist facilities. However, this area also functions as an environmental and visual buffering protecting the main monument itself. 6. The Zones 4 or 5 are designated protective zones but actually do not benefit from management control. 7. There is serious lack of on-site presentation and interpretation 8. Kurangnya presentasi dan interpretasi, termasuk penyampaian Nilai Universal Luar Biasa kepada pengunjung.</td>
<td>1. Encourages the State Party to further involve local communities in the management and presentation of the property through educational and promotional activities. 2. Reiterates its recommendation to ban major road developments within Zones 1 to 3, although improvement of existing roads may be permitted. 3. Halt any construction of major commercial shopping centres near the property and within any of the protective zones</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>WHC-05/29.COM/78.53 State of Conservation Report</td>
<td>1. Tourism development pressure; 2. Uncontrolled vendors within and around the property; 3. Lack of a coordinated site management mechanism; 4. Absence of property presentation and interpretation and of a visitor Management Plan;</td>
<td>1. Develop a comprehensive Visitor Management Plan to mitigate the negative impact of mass tourism on the property and raise-awareness of the public on the need to protect the World Heritage property. 2. Provide detailed information on the existing institutional framework in place for the management of the property, with particular attention paid to the mechanisms established to ensure the appropriate coordination among all the concerned parties.</td>
<td></td>
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<tr>
<td>2006</td>
<td>WHC-06/30.COM/7B.65 Reactive Monitoring</td>
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<tr>
<td>Appreciate the decision to cancel the Jagad Jawa project.</td>
<td>1. There are no policy, rules, and procedure of land use is potential to raises new planning and development that could harm the integrity of the heritage. One of the major concerns is the development of an asphalt mixing factory nearby. The development can threaten the integrity of the site that is not only a monument but as a compound.</td>
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<tr>
<td>Main threat(s) to the world heritage:</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>1. Tourism development pressure;</td>
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<td></td>
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<tr>
<td>2. Uncontrolled vendors within and around the property;</td>
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<tr>
<td>3. Lack of a coordinated site management mechanism;</td>
<td>2. There is still no visitor management. Although there are some efforts being made concerning visitor management</td>
<td></td>
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<tr>
<td>3. Provide further details on the strategy being developed for the sustainable development of the area surrounding the Borobudur World Heritage property, elaborating in particular on the characteristics of the proposed “Mandala” approach and its operational implications.</td>
<td>4. Set up a method for monitoring and analysis the cause of damage to the temple stones.</td>
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<td></td>
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</tr>
<tr>
<td>4. Encourages the State Party to continue the organization of awareness-raising activities for local population and mobilize their active participation in heritage conservation and management.</td>
<td>5. The major issue regarding closer coordination of the management agencies responsible for the various components or zoning system of the property has yet to be addressed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The recommendations for future action included in the document were too general and did not indicate whether the responsible management authorities have access to sufficient resources to implement the planning objectives.</td>
<td>1. Review the Presidential Decree No 1 1992 and form a body that has authority of management in Zone 1 and Zone 2</td>
<td></td>
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</tr>
</tbody>
</table>

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5. Vandalism and littering from visitors.

- No information is included on the actual progress made in their implementation of the visitor management.
- No further elaboration is provided on how the concept of Mandala, as an appropriate philosophical approach that could be adopted as a foundation for sustainable site management. Moreover, no further elaboration is provided in the document on the actual implications of this approach for the activities to be carried out at the site.
- The recommendations for future action included in the document were too general and did not indicate whether the responsible management authorities have access to sufficient resources to implement the planning objectives.
- The major issue regarding closer coordination of the management agencies responsible for the various components or zoning system of the property has yet to be addressed.

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3. Provide further details on the strategy being developed for the sustainable development of the area surrounding the Borobudur World Heritage property, elaborating in particular on the characteristics of the proposed “Mandala” approach and its operational implications.

2. Uncontrolled vendors within and around the property:

- There are no policy, rules, and procedure of land use is potential to raises new planning and development that could harm the integrity of the heritage. One of the major concerns is the development of an asphalt mixing factory nearby. The development can threaten the integrity of the site that is not only a monument but as a compound.
- There is still no visitor management. Although there are some efforts being made concerning visitor management

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Tourism development pressure;

1. Review the Presidential Decree No 1 1992 and form a body that has authority of management in Zone 1 and Zone 2
2. Make a plan for the main entrance to the heritage, especially the vendors arrangement.
3. Increase the interpretation of the heritage in museum and provide brochures in foreign languages, include the status of Borobudur as a world heritage and its underlying reasons.
4. Set up a method for monitoring and analysis the cause of damage to the temple stones.
<table>
<thead>
<tr>
<th>Year</th>
<th>WHC Code</th>
<th>WHC Report Title</th>
<th>Main Threat(s) to the World Heritage</th>
<th>UWI: Actions Taken</th>
</tr>
</thead>
</table>
| 2007 | WHC-07/31.COM/7B.84 State of Conservation Report | Development pressure; Uncontrolled vendors around the property; Lack of institutional coordination; Poor state of the stone bas-reliefs. | 1. There is a statement readiness to revise the current Presidential Decree (N.1/1992), but does not provide any indication of the expected timeframe for the elaboration and possible adoption  
2. The plan for the improvement of the entry area concentrates mainly on the execution of newly designed main gate and ticket gates. The plan seems to leave unchanged the layout of the parking and vendor areas  
3. There are conservation practices that are inappropriate and have negative impact.  
4. There is still no revision of the legal and institutional framework | 1. Continue its efforts towards a revision of the legal and institutional framework for the protection and management of the World Heritage property and its surrounding area.  
2. Discontinue the practices that appear to have a negative impact on the stone of the Borobudur temple. |
| 2009 | WHC-09/33.COM/7B.74 State of Conservation Report | The State Party has engaged in a consultation programme with stakeholders and inter-institutional | 1. Statement of Outstanding Universal Value has been prepared, based on the format developed by |
1. Ineffectual legal and institutional framework for the management and protection of the property;
2. Impacts on the stone of Borobudur Temple from the use of epoxy resin, steam cleaning and water repellants.

representatives to revise the legal and institutional framework for the protection and management of the property and its surrounding area.

Borobudur has been designated as a National Strategic Area, in which the property will be directly under the central government control.

2. The use of material and method for conserving stone that have potential adverse effect is now limited, but not totally eliminated.

3. Statement of Outstanding Universal Value has been prepared, based on the format developed by the World Heritage Centre and the Advisory Bodies, but the draft does not include management plan and information on the authenticity and integrity of the property.

2. Discontinue the practices that appear to have a negative impact on the stone of the Borobudur temple.

To adopt the Outstanding Universal Values for the Borobudur Temple Compounds.

This document consist of map and border of the World Heritage and its surroundings base on the Retrospective Statement of Outstanding Universal Value.
### VIII.2 MONITORING AND EVALUATION TABLE

#### VIII.2.1 Spatial and Development Pressures

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>PURPOSE</th>
<th>BENEFIT</th>
<th>MONITORING PERIOD</th>
<th>IMPACT ATRIBUTE</th>
<th>EXECUTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use Change Monitoring</td>
<td>To recognize change in land use in Borobudur Temple Compounds</td>
<td>Obtaining condition change in Borobudur Temple Compounds as an evaluation of the OUV</td>
<td>Monthly, Incidental</td>
<td></td>
<td>Management Body, District Government of Magelang</td>
</tr>
<tr>
<td>Façade Monitoring</td>
<td>Monitor the façade along the road of the corridor of Parbapang-Borobudur</td>
<td>Obtaining condition change in Borobudur Temple Compounds as an evaluation of the OUV</td>
<td>Monthly, Incidental</td>
<td></td>
<td>Management Body, District Government of Magelang</td>
</tr>
<tr>
<td>Visual Change Monitoring</td>
<td>To recognize changes in the visual span of Borobudur Temple Compounds</td>
<td>Obtaining the condition of visual span in SP-1 and SP-2</td>
<td>Monthly, Incidental</td>
<td></td>
<td>Management Body, District Government of Magelang</td>
</tr>
<tr>
<td>Infrastructure Development Monitoring</td>
<td>To recognize the develop territory in the Borobudur Temple Compounds</td>
<td>Obtaining information on the potential impact of the OUV</td>
<td>Monthly, Incidental</td>
<td></td>
<td>Management Body, District Government of Magelang</td>
</tr>
<tr>
<td>New Building Development Monitoring</td>
<td>To recognize the develop territory in the Borobudur Temple Compounds</td>
<td>Obtaining information on the potential impact of the OUV</td>
<td>Monthly, Incidental</td>
<td></td>
<td>Management Body, District Government of Magelang</td>
</tr>
</tbody>
</table>

- **Threat**: Potentially Impact
- **: Non Threat**
### VIII.2.2 Conservation

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>PURPOSE</th>
<th>BENEFIT</th>
<th>MONITORING PERIOD</th>
<th>IMPACT ATRIBUTE</th>
<th>EXECUTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leakage Observation</td>
<td>Observation and data collecting of leakage in the wall of the temples.</td>
<td>Recognize the state of preservation of the stone in Borobudur, Mendut and Pawon Temple.</td>
<td>Every semester</td>
<td></td>
<td>Management Body</td>
</tr>
<tr>
<td>Alveol Growth</td>
<td>Data collecting on alveol hole on the stone surface of the temple</td>
<td>Recognize the state of preservation of the stone in Borobudur, Mendut and Pawon Temple.</td>
<td>Daily</td>
<td></td>
<td>Management Body</td>
</tr>
<tr>
<td>Salt Deposits</td>
<td>Observation and data collecting of salt deposits on the stone surface of the temples.</td>
<td>Recognize the state of preservation of the stone in Borobudur, Mendut and Pawon Temple.</td>
<td>Daily</td>
<td></td>
<td>Management Body</td>
</tr>
<tr>
<td>Stone Cracks</td>
<td>Observation on the cracks of stone of the temples</td>
<td>Recognize the state of preservation of the stone in Borobudur, Mendut and Pawon Temple.</td>
<td>Daily</td>
<td></td>
<td>Management Body</td>
</tr>
<tr>
<td>Sedimentation</td>
<td>Observation and data collecting on the sedimentation of the stone surface of the temples.</td>
<td>Recognize the state of preservation of the stone in Borobudur, Mendut and Pawon Temple.</td>
<td>Daily</td>
<td></td>
<td>Management Body</td>
</tr>
<tr>
<td>Exfoliation</td>
<td>Observation and data collecting on the exfoliation of stone on the temples.</td>
<td>Recognize the state of preservation of the stone in Borobudur, Mendut and Pawon Temple.</td>
<td>Daily</td>
<td></td>
<td>Management Body</td>
</tr>
<tr>
<td>Postule</td>
<td>Observation and data collecting of postule on the stone surface of the temples.</td>
<td>Recognize the state of preservation of the stone in Borobudur, Mendut and Pawon Temple.</td>
<td>Daily</td>
<td></td>
<td>Management Body</td>
</tr>
<tr>
<td><strong>Borobudur Temple Control Point Measurement</strong></td>
<td>To recognize the deformation or the change of position of the control point that is situated on the ground and structure in horizontal or vertical.</td>
<td>Recognize the stability of the temple structure and mount</td>
<td>March - October</td>
<td>Management Body</td>
<td></td>
</tr>
<tr>
<td>---</td>
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<td></td>
</tr>
<tr>
<td><strong>Inclinometer measurement</strong></td>
<td>To recognize the horizontal movement of Borobudur Temple mount, as to find out the stability of the structure and mount.</td>
<td>Recognize the stability of the temple structure and mount</td>
<td>Every semester. Data Acquisition is set with an interval of 1-15 minutes, and then is downloaded every month.</td>
<td>Management Body</td>
<td></td>
</tr>
<tr>
<td><strong>Measurement of Cracks on the Temple Wall (Crackmeter)</strong></td>
<td>To recognize the cracks between stones on the temple wall. The change on the crack are measures in cm-micron</td>
<td>Recognize the stability of the temple structure and mount</td>
<td>Monthly</td>
<td>Management Body</td>
<td></td>
</tr>
<tr>
<td><strong>Wall Slope Measurement</strong></td>
<td>To recognize the state of the wall slope horizontal of axis X and Y</td>
<td>Recognize the stability of the temple structure and mount</td>
<td>Once a year in March or April.</td>
<td>Management Body</td>
<td></td>
</tr>
</tbody>
</table>

| Threat | Potentially impact | Non Threat |
**VIII.2.3 Visitation and Tourism**

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>PURPOSE</th>
<th>BENEFIT</th>
<th>MONITORING PERIOD</th>
<th>IMPACT ATTRIBUT</th>
<th>EXECUTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vandalism Observation</td>
<td>Observation and data collection of total and the location vandalism</td>
<td>To recognize the state of cleanliness in Borobudur, Pawon, and Mendut Temple</td>
<td>Daily</td>
<td></td>
<td>• Management Body</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• District Government of Magelang</td>
</tr>
<tr>
<td>Level of Noise Measurement</td>
<td>To recognize the level of noise in a special event and its impact on Borobudur and Mendut Temple</td>
<td>The level of noise in the area of Borobudur and Mendut Temple</td>
<td>Incidental</td>
<td></td>
<td>• Management Body</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>• District Government of Magelang</td>
</tr>
<tr>
<td>Monitoring Visitor’s Number and Profile</td>
<td>To recognize the visitor’s number in Borobudur, Pawon, and Mendut Temple to monitor its impact on the preservation the temples.</td>
<td>The number of visitor and its compositions.</td>
<td>Monthly</td>
<td></td>
<td>• Management Body</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• District Government of Magelang</td>
</tr>
</tbody>
</table>
| Visitor Interpretation of Borobudur Temple Compounds | • To recognize the state of understanding of the visitor of the Borobudur, Pawon, and Mendut Temple  
• To recognize the level of visit to the information center, audio visual, and information board  
• To recognize the level of visitor satisfaction in the museum | To recognize the level of understanding and interpretation of visitor | Monthly           |                 | • Management Body                                 |
|                                        |                                                                         |                                                                         |                   |                 | • District Government of Magelang               |
| Visitor Behavior and Distribution Monitoring | • Distribution pattern of visitor  
• Plot and time of visit  
• Visitor’s behavior | To recognize the distribution pattern of visit and visitor behavior | Monthly           |                 | • Management Body                                 |
<p>|                                        |                                                                         |                                                                         |                   |                 | • District Government of Magelang               |
| Satisfaction level of Visitor and Evaluation of Facility Monitoring | To recognize the level of visitor satisfaction to the management of temples, park, and its facilities. | To increase management of temple, park and its facilities | Monthly           |                 | • Management Body                                 |
|                                        |                                                                         |                                                                         |                   |                 | • District Government of Magelang               |</p>
<table>
<thead>
<tr>
<th>monitoring of other facility in Borobudur, Pawon, and Mendut Temple</th>
<th>To recognize the intensity and type of utilization in the Borobudur, Pawon, and Mendut Temple</th>
<th>To develop a management and utilization model that is suitable to the OUV</th>
<th>Incidental</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

- Management Body
- District Government of Magelang

- : Threat
- : Potentially impact
- : Non Threat
## VIII.2.4 Disaster Risk

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>PURPOSE</th>
<th>BENEFIT</th>
<th>MONITORING PERIOD</th>
<th>IMPACT ATRIBUTE</th>
<th>EXECUTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring of Volcano Activity</td>
<td>To recognize the volcano activities that threatens the physical and cultural landscape.</td>
<td>Estimate the potential impact on the heritage</td>
<td>Incidental</td>
<td></td>
<td>• Management Body • District Government of Magelang • BMKG</td>
</tr>
<tr>
<td>Monitoring of Land Movement</td>
<td>To recognize the land movement that is potential to harm the cultural landscape</td>
<td>Estimate the potential impact on the heritage</td>
<td>• Monthly • Incidental</td>
<td></td>
<td>• Management Body • District Government of Magelang • BMKG</td>
</tr>
<tr>
<td>Monitoring of Pyroclastic Rain</td>
<td>To recognize the pyroclastic rainfall potential to threaten the temples</td>
<td>Estimate the potential impact on the heritage</td>
<td>Incidental</td>
<td></td>
<td>• Management Body • District Government of Magelang • BMKG</td>
</tr>
<tr>
<td>Monitoring of Warm Clouds</td>
<td>To recognize the movement of clouds potential to threaten the temples</td>
<td>Estimate the potential impact on the heritage</td>
<td>Incidental</td>
<td></td>
<td>• Management Body • District Government of Magelang • BMKG</td>
</tr>
<tr>
<td>Monitoring of Cold Lava (Lava Rain)</td>
<td>To recognize the lava activity potential to threaten the imaginary axis</td>
<td>Estimate the potential impact on the heritage</td>
<td>Incidental</td>
<td></td>
<td>• Management Body • District Government of Magelang • BMKG</td>
</tr>
<tr>
<td>Monitoring of Floods</td>
<td>To recognize flood activity potential to threaten the imaginary axis</td>
<td>Estimate the potential impact on the heritage</td>
<td>Incidental</td>
<td></td>
<td>• Management Body • District Government of Magelang • BMKG</td>
</tr>
<tr>
<td>Monitoring of Avalanche</td>
<td>To recognize the potential avalanche that threaten the cultural landscape</td>
<td>Estimate the potential impact on the heritage</td>
<td>• Monthly • Incidental</td>
<td></td>
<td>• Management Body • District Government of Magelang • BMKG</td>
</tr>
<tr>
<td>Monitoring of Epidemic/Pandemic</td>
<td>To recognize the impact of epidemic/pandemic on the surrounding village</td>
<td>Estimate the potential impact on the surrounding village</td>
<td>Incidental</td>
<td>Management Body</td>
<td>District Government of Magelang</td>
</tr>
<tr>
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<td></td>
</tr>
</tbody>
</table>

- **Threat**: |
- **Potentially impact**: |
- **Non Threat**: |
VIII. 2.5 Environmental Pressure

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>PURPOSE</th>
<th>BENEFIT</th>
<th>MONITORING PERIOD</th>
<th>IMPACT ATRIBUTE</th>
<th>EXECUTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Observation</td>
<td>To recognize the volume of waste in the surrounding and structure of the temples.</td>
<td>To recognize the level of cleanliness of the temple from the degradable and non-degradable waste</td>
<td>Daily</td>
<td>2</td>
<td>Management Body</td>
</tr>
<tr>
<td>Micro Climatology Measurement</td>
<td>To identify and evaluate micro climate for the past year</td>
<td>To recognize the micro climate condition in zone 1</td>
<td>Daily</td>
<td>2</td>
<td>Management Body</td>
</tr>
<tr>
<td>Water Test in the Control Tank</td>
<td>To recognize the physical nature and chemical composition of the control tank in the surrounding.</td>
<td>To recognize the water contents that infiltrate the structure and mounts.</td>
<td>Once per Semester</td>
<td>6</td>
<td>Management Body</td>
</tr>
<tr>
<td>Measurement of Air Quality through SOX and NOX</td>
<td>To recognize the air quality including SOX and NOX of Borobudur</td>
<td>To recognize the air condition in the surrounding</td>
<td>Once per Semester</td>
<td>6</td>
<td>Management Body</td>
</tr>
<tr>
<td>Data collection and Mapping of Vegetation in Zone 1</td>
<td>To recognize the type and the total vegetation in Zone 1</td>
<td>Map and types of vegetation and fauna in Zone 1</td>
<td>Once per Semester</td>
<td>6</td>
<td>Management Body</td>
</tr>
<tr>
<td>Monitoring of water surface depth in local well</td>
<td>To recognize the depth of water surface elevation of local well</td>
<td>To recognize the subsurface water condition in the Borobudur, Pawon, and Mendut Temple.</td>
<td>Every three month</td>
<td>6</td>
<td>Management Body</td>
</tr>
<tr>
<td>Monitor the depth of infiltration wells</td>
<td>To recognize the depth of water surface elevation of infiltration well</td>
<td>To recognize the subsurface water condition in the Borobudur, Pawon, and Mendut Temple.</td>
<td>Every three month</td>
<td>6</td>
<td>Management Body</td>
</tr>
<tr>
<td>Monitoring of Water Meter</td>
<td>To recognize the runoff water volume in the drainage</td>
<td>To recognize the condition of water debit of the temples</td>
<td>Monthly</td>
<td>6</td>
<td>Management Body</td>
</tr>
<tr>
<td>Monitoring of the effectiveness of (filter layer)</td>
<td>To recognize the effectiveness of filter layer in preventing erosion in the Borobudur mount and the level of water coming out.</td>
<td>To recognize the condition of water debit of the temples</td>
<td>Once a year</td>
<td>6</td>
<td>Management Body</td>
</tr>
</tbody>
</table>

: Threat  : Potentially impact  : Non Threat
VIII.3 ZONE PLANNING STANDARDS IN BOROBUDUR TEMPLE COMPOUNDS
(Based on the Presidential Decree No 58 2014)

<table>
<thead>
<tr>
<th>ZONE</th>
<th>PURPOSE</th>
<th>ALLOWED USE</th>
<th>TECHNICAL PROVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP 1</td>
<td>To Maintain Borobudur Temple Compounds as a National Cultural Properties and World Heritage</td>
<td>Protection measure of Borobudur Temple Compounds</td>
<td><strong>Spatial use intensity provision, infrastructure building arrangement</strong>&lt;br&gt;- Spatial use intensity provision: BCR (%): 0; FAR Max; BCR Min (%): 0&lt;br&gt;- Building arrangement provision: Setback Building Min:0 m; Max Height: 0 m; Setback River min 0 m.&lt;br&gt;- World Heritage and National Cultural Property Status&lt;br&gt;- All development proposal is sent to the Ministry of Education and Culture and the Secretariat of World Heritage UNESCO&lt;br&gt;- All development that is potential to impact the OUV should first taken up Heritage Impact Assessment (HIA)&lt;br&gt;- The value of BCR, FAR Setback Building and River are 0 (zero)&lt;br&gt;&lt;br&gt;<strong>Directive provision of activities and land use:</strong>&lt;br&gt;• Be permitted as a center of information for tourism, history and culture.&lt;br&gt;• Transportation infrastructure such as pedestrian walks, green open space, island road, and garden&lt;br&gt;&lt;br&gt;<strong>Directive provision spatial use intensity, building layout, and minimal facilities and infrastructure:</strong>&lt;br&gt;• Spatial use intensity provision: BCR max: 4%; FAR max: 1%; BCR min: 96 %&lt;br&gt;• Façade provision:&lt;br&gt;  1) Traditional design with main material of natural and local material;&lt;br&gt;  2) Small in size;&lt;br&gt;  3) No basement;&lt;br&gt;  4) Not visible from Borobudur peak;&lt;br&gt;  5) Cover with tall and thick vegetation;&lt;br&gt;  6) Non contrast from its surrounding.&lt;br&gt;• BCR max: 4%; FAR max:1; BCR min: 96%; Setback Building min: 10 M; Building height max: 10 M; Setback River min: 0 M</td>
</tr>
<tr>
<td>SP 2</td>
<td>Settlement Function:</td>
<td>Directive provision spatial use intensity, building layout infrastructure for settlements:</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>----------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>• Protect the rice fields former ancient lake as a geology feature &lt;br&gt; • Maintain the quality of rural space &lt;br&gt; • Develop a local activity center of Borobudur settlements that is harmonious with the preservation of the area &lt;br&gt; • Protect the preservation, safety function and physical state of Progo and Elo River. &lt;br&gt; • Preserve Pawon Temple that is harmonious with the rural character &lt;br&gt; • Preserve Mendut Temple that is harmonious with the rural character</td>
<td>• Allowed: traditional housing and townhouse; telecommunication facility; stall/shop; agriculture, plantation, nursery, plant sales; infrastructures, open space &lt;br&gt; • Allowed with conditional and restriction: non chemical waste home industry; sports; restaurant; tourism attraction; souvenir kiosk, lodging, educational facility, health facility, religious facility</td>
<td>• BCR max: 20%; FAR max: 1; BCR min: 80% &lt;br&gt; • Setback Building min: 4-10 M; height max: 7-10 M; Setback River min: 0 M &lt;br&gt; • Façade provision: 1) Traditional design with main material of natural and local material; 2) Small in size; 3) No basement; 4) Not visible from Borobudur peak; 5) Cover with tall and thick vegetation; 6) Non contrast from its surrounding. &lt;br&gt; • Drainage is a minimal &lt;br&gt; • Pedestrian is adequate with minimal lighting</td>
<td></td>
</tr>
<tr>
<td>Other function allowed:</td>
<td>• Non chemical home industry with conditional; does not disturb natural transportation; must provide a waste management system that is separate from the resident waste disposal; waste management with 4R (reduce, reuse, recycle, replace); does not affect health, security, the convenience of the surrounding environment; no negative impact to the temples; outside of settlement if a showcase is needed; provide a adequate parking lot with the showcase; produce products (art and traditional) with character of Borobudur Area; &lt;br&gt; • Recreational activity such as restaurant is conditional; must provide adequate parking lot; do not disrupt transportation; have their own waste management system; &lt;br&gt; • Recreational activity such as restaurant with conditional; middle and small scale; &lt;br&gt; • Recreational activity such as tourism attraction is conditional; do not affect health, security, and the comfort of surrounding environment  &lt;br&gt; • Kegiatan rekreasi berupa atraksi wisata dan sejenisnya diperbolehkan bersyarat: tidak mengganggu aspek kesehatan, keamanan, dan kenyamanan lingkungan setempat; and support the local culture and potential;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Educational, health and religious facility is limited;
- Kegiatan rekreasi berupa kios suvenir diperbolehkan terbatas: kegiatan konsumsi skala menengah dan skala kecil; the number of facility is adapted to the needs of people.

<table>
<thead>
<tr>
<th>Agriculture function: Provision directive and land use: Allowed for utilization such as rice fields/fields; plantation, nursery, and plant sales/florist; and transportation infrastructure in the form of inspection road and pedestrian.</th>
<th>Directive provision spatial use intensity, building layout infrastructure for agriculture and former ancient lakes: BCR min (%): 100 Setback River min: 50 M Inspection road is equipped with minimal lighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice fields of former ancient lakes: Directive provision and land use: allowed for agriculture, rice fields/fields transportation infrastructure such as inspection roads.</td>
<td>Ketentuan intensitas pemanfaatan ruang, tata bangunan prasarana pada sempadan sungai: KDH min (%): 100 GSS min: 50 M Jalan inspeksi dilengkapi dengan fasilitas penerangan</td>
</tr>
<tr>
<td>River Border Provision directive and land use: Allowed for: 1) Agriculture activity such as rice fields/fields; plantation, nursery, and plant sales/florist; and transportation infrastructure in the form of inspection road and pedestrian; open space for yard. 2) Conditional and limited for: sports, recreational for tourism attraction; utilization of pedestrian bridge; other utilization such billboard, educational board and warnings, signage, electrical cable, telephone cable, and water pipes. Additional directive provision with conditional and limited: 1) Sport activity with conditional: do not raises negative impact on the preservation and safety function and physical of the river, and visitor number is limited as to the minimum capacity</td>
<td></td>
</tr>
</tbody>
</table>
2) Recreational such as natural tourism attraction to enjoy the river is conditional; do not have a negative impact on the preservation and safety function and physical of the river;
3) The use of a pedestrian bridge is conditional: do not have a negative impact on the preservation and safety function and physical of the river; and
4) Other utilization is conditional: do not disrupt nutrients and natural ecosystem.

<table>
<thead>
<tr>
<th>Pawon Temple</th>
<th>Directive provision spatial use intensity, building layout, and minimal facilities and infrastructure Pawon Temple:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directive provision and land use is prohibited for preservation of the temple.</td>
<td>• Setback River min: 50 M</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temple Pawon Park</th>
<th>Directive provision spatial use intensity, building layout, and minimal facilities and infrastructure Pawon Temple Park:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directive provision and land use is prohibited for pedestrian and open space such as green line, roads, and yard.</td>
<td>• Setback river min: 50 M</td>
</tr>
<tr>
<td></td>
<td>• Characteristic in botanical garden</td>
</tr>
<tr>
<td></td>
<td>• Minimal facility such as lighting, bench and trash can.</td>
</tr>
</tbody>
</table>
### VIII.4 PROPOSED PLANNING STANDARDS
(Based on the Integrated Tourism Master Plan: Borobudur—Yogyakarta—Prambanan)

<table>
<thead>
<tr>
<th>AREA</th>
<th>UTILIZATION ALLOWED</th>
<th>NOTES</th>
</tr>
</thead>
</table>
| Cultural Village      | • Housing, including homestay accommodation  
                        • Commercial and local retail  
                        • Catering, including restaurant and food outlets  
                        • Office, including information and interpretation center  
                        • Local transportation facility including parking lot for visitor | • Rural local character is maintained, traditional house design, using local material  
                                                                                                                                               • Adopt the international standards in tourism provider services but on course with the local architecture character  
                                                                                                                                               • Minimalize the use of motorized transportation, promote the use of pedestrian and cycling, and eco-friendly transportation  
                                                                                                                                               • Adopt and combine sustainable technology including solar powered water heater. |
| Tourism Facility      | • Museum  
                        • Information and Visitor Center  
                        • Theater, Conference and Exhibition Center  
                        • Craft Center | Integrated in the plan of public transportation                                                                                                                                                      |
| Tourism Route         | • Thematic route, including historic and cultural trail  
                        • Road access and tour route  
                        • Bike lane and pedestrian | • Ensure there is availability in adequate signage along the predestined route  
                                                                                                                                               • Ensure a comfortable and secure access for cyclist and pedestrian.                                                                                                                                 |
| Buffer zone           | Varies from cases, and depends on location context and the development plan | • Depend on the term of reference of the proposed project that could affect the identified cultural property. Proposal should be addressed to the ministry of Education and Culture and accompanied with a Heritage Impact Assessment.  
                                                                                                                                               • Proposal accompanied with a detailed HIA that shows that the development proposed has met the planning criteria dan design guidelines to maintain the integrity of the World Heritage |
| Cultural Property Sites | • Information and Interpretation center  
                        • Local transportation facility including parking lot for visitor | • The purpose of this area is to ensure the integrity of rural area and provide an eco-tourism that beneficial for the local resident.  
                                                                                                                                               • The use of motorized access and activity is prohibited, access only for pedestrian.                                                                 |
| Rural and Eco-tourism | • Pedestrian and cyclist  
• Access point for vehicle  
• Landscape and recreational area  
• Adventure sports; rafting; tubing; paragliding | • The purpose of this area is to ensure the river system as a green artery that runs through all area  
• Motorized activity is prohibited for this area  
• Adopt and combine sustainable technology including a solar powered water heater.  
• This area covers all river and tributary flow throughout 25 m that spread from all edges of the river  
• All proposal development of this area is accompanied with risk flood assessment and volcanic activity |
|---|---|---|
| Sungai dan petualangan | • River sightseeing, including selfie spot  
• Restaurant and café related  
• Outdoor activity such as camping, climbing, and paragliding  
• Pedestrian and cycling  
• Toilets, information and interpretation center. | Special condition will apply for the development of this area will include:  
• Minimalize landscape disturbance  
• Requirement to not change or disrupt the existing skyline  
• Access for motorized construction and service is not recommended  
• Adopt and combine sustainable technology including sel fotovolta and solar powered water heater in the development  
• Proposal for the development of this area accompanied with an environmental impact assessment and a Geotechnic report that validate the stability of the site and structure proposed  
• Other than that, the proposal has to be accompanied by a visual impact assessment that shows the impact on the visual of the mountain and scenery is tolerate and the integrity of the area is maintained. |
### VIII.5 GUIDELINE DESIGN PROPOSED FOR INSTALLATION CONSTRUCTED IN BOROBUDUR TEMPLE COMPOUNDS
(Based on Integrated Tourism Master Plan: Borobudur—Yogyakarta—Prambanan)

<table>
<thead>
<tr>
<th>AREA</th>
<th>STANDARD</th>
<th>NOTES</th>
</tr>
</thead>
</table>
| Cultural Property Site      | • World Heritage Site  
• Culture and Education  
• High quality retail and catering  
• Development has to meet highest international standard | • All design proposal has to be submitted to the Ministry of Education and Culture for comments and approval  
• All development that is estimated to have an impact should be accompanied with environmental impact assessment and heritage impact assessment |
| Village                     | Varies according to type                                                 | • The purpose of this area is to ensure the integrity of rural area for the benefit of local  
• All building is design with a Javanese traditional architecture and the use of natural material, the use of stain glass, reflective and metal works should be avoided |
| Buffer Zone                 | Varies from cases, and depends on location context and the development plan | • Dependent on the term of reference of the proposed project that could affect the identified cultural property.  
• All building design proposal should respect the style, colour, and material of local architecture  
• Proposal is submitted to the Ministry of Education and Culture that will respond to the impact on the local values.  
• Proposal accompanied with a detailed HIA that shows that the development proposed has met the planning criteria dan design guidelines to maintain the integrity of the heritage |
| Rural and Eco-tourism       | Tourism village spatial standard applies                                 | • The purpose of this area is to ensure the integrity of rural area and eco-tourism to benefactory for the local.  
• In rural area, all building is design with the style of Javanese architecture and uses local natural material.  
• Special emphasis should be made on the landscape using original species of plants. |
| River and adventure | Tourism village spatial standard applies | • The purpose of this area is to ensure the integration of the river system  
• Emphasis will be directed on using local and natural material such as wood, bamboo, and stone.  
• This area covers all stream line that stretches from the river edge.  
• Special emphasis should be made on the landscape using original species of plants. |
| Mountain and scenery | • Standard of mountain and scenery applies  
• Standard for space and equipment should follow the highest international standards | The building design, choice of material, and colour should reflect the purpose to minimalize visual impact of development |
| Evacuation on disaster and fire | All development proposal has to adequately show the access of fire extinguisher in all buildings and uses the highest international standard in evacuation in the case of natural disaster and fire. |
## VIII.6 MONITORING AND EVALUATION MECHANISM OF BOROBUDUR TEMPLE COMPounds

<table>
<thead>
<tr>
<th>MONITORING OBJECTS</th>
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<th>FOLLOW-UP BY</th>
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<td>Level of Visitation and Visitor Profile</td>
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<td>Visitor Interpretation</td>
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<td>Cold Lava (Lava Rain)</td>
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**Management Bodies:**
- District Government of Magelang
- Ministry of Education and Culture
- Ministry of Tourism and Creative Industry
- Provincial Government of Central Java
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<tr>
<th>Area</th>
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Heritage Impact Assessment
Borobudur Temple Compounds
I. INTRODUCTION

A. Background on the Heritage Impact Assessment at the Borobudur Temple Compounds

Cultural Heritage Impact Assessment (HIA) is a study of the potential impact of a development or utilization plan on Cultural Conservation or World Heritage. The purpose of the Cultural Conservation Impact Analysis is to identify the sources and potential impacts on the site or Cultural Conservation Area proposed to be developed and utilized in the future.

Cultural Conservation Impact Analysis is a process of identifying, predicting, evaluating, and communicating the negative impacts that may arise from a development or utilization plan on the essential values and attributes of protected cultural heritage. Both objects and intangibles then gave recommendations on how to prevent or minimize these negative impacts. A Cultural Conservation Impact Analysis is vital due to the need for instruments to measure whether development or utilization plans can be permitted without harming a Cultural Conservation’s important value.

The need for Cultural Heritage Impact Analysis is also base on the mandate of Law Number 11 of 2010 concerning Cultural Heritage. Article 86 states, "Utilization that can cause damage must be preceded by a study, research or analysis of environmental impacts." Activities for developing and utilizing Cultural Conservation or World Heritage require an instrument that can assess a plan’s impact on the significant value contained in a building/area. At the stage of preparing technical planning documents or development proposals in the Cultural Heritage area, a Heritage Impact Assessment (HIA) is required.

The Government or stakeholders responsible for making informed decisions related to changes that will occur in the Cultural Conservation environment will use the results of the Cultural Conservation Impact Analysis report. A Cultural Conservation Impact Analysis study is necessary to state that the development or utilization in the Cultural Conservation area will not damage the Cultural Conservation resources. This study is required for any changes in the Cultural Conservation area when the Cultural Conservation is developed and utilized for activities outside the realm of protection. Mitigation measures must also be formulated to ensure that efforts to develop or utilize the Cultural Conservation must continue to support protection efforts by creating an environmental atmosphere that supports the Cultural Conservation values greatness.

The Borobudur Temple Compounds include Borobudur Temple, Pawon Temple, Mendut Temple, and the surrounding area. Apart from the three temples, in this insight, there are still several other archaeological sites and remains, namely the Yoni Brongsongan Site, the Dipan Temple Site, the Bowongan Temple Site, the Samberan Temple Site, the Yoni Plan Site, and the Dutch Tomb in Bojong. The Borobudur Temple Compounds were officially included in the UNESCO World Heritage Sites list in 1991 with inventory number C 592. Thus, the Borobudur Temple Compounds as a World Heritage (World Heritage) is a unity between temple buildings, sites, and spaces, which forms the cultural landscape of Borobudur.

After the restoration process is complete, Borobudur Temple becomes a destination for research, education, recreation/tourism activities for the wider community, domestic and foreign tourists, and even one of the regional economy drivers through tourism. During its development, the increase in visits to the Borobudur Temple Compounds and the use of other activities (such as religious activities, special events, and other recreation, as well as commercial activities that exceed capacity) have put additional burdens on the area. Further efforts are needed to improve environmental quality and maintenance, authenticity, and integrity of the Borobudur Temple Compounds as a World Heritage.

Based on Presidential Regulation Number 50 of 2011 concerning the Tourism Development Master Plan for 2010-2025, the Borobudur Temple Compounds has been designated as one of the National Tourism Strategic Areas. The Government subsequently designated the Borobudur Temple Compounds as one of the Super Priority Tourism Destinations, which requires restructuring its development and utilization while still ensuring
the Borobudur Temple Compounds a National Cultural Heritage World Heritage Area. Based on this, the Ministry of Public Works and Public Housing c.q. The Directorate General of Human Settlements plans to plan and organize the Borobudur Temple Compounds. In the structuring framework, it is necessary to conduct a Heritage Impact Assessment on the structuring plan that will be implemented in the Borobudur Temple Compounds.

B. Mandate and Terms of Reference

1. The Objective of HIA

The Heritage Impact Assessment (HIA) of the Borobudur Temple Compounds is a study of the potential impact of the area arrangement plan carried out by the Directorate General of Human Settlements on the World Heritage of the Borobudur Temple Compounds. The purpose of this study is to identify the sources and potential impacts on the Outstanding Universal Value and attributes of the Borobudur Temple Compounds as a result of the arrangement plan and development of the area. It is hoped that the arrangement and development plan in the Borobudur Temple Compounds will continue to guarantee its protection as a World Heritage.

2. The Scope of the HIA
   a. HIA Space Limit
      
      This study will cover areas that are included in the delineation of the Borobudur Conservation Area, as stipulated in Presidential Regulation Number 58 of 2014, which consists of:
      
      - Conservation Sub-Region 1 (SP-1), which is the main conservation area for Cultural Heritage sites that urgently control the growth of the built-up areas in order to protect the Borobudur, Pawon, and Mendut temples and their environment,
      - Conservation Sub-Region 2 (SP-2) is a security area for the distribution of undeveloped sites directed at controlling the growth of the built-up area to maintain the potential for the distribution of the Cultural Heritage that has not been excavated and visibility.

b. The Scope of Cultural Heritage To Be Evaluated

This study will cover the Cultural Heritage of Borobudur Temple, Pawon Temple, Mendut Temple, the imaginary axis of Borobodur-Pawon-Mendut, the landscape of view, and the cultural landscape of the Borobudur Temple Compounds.
Image 3. Map of Borobudur Temple showing the core and buffer zones.  
Source: Borobudur Conservation Office (2020)

Source: Borobudur Conservation Office (2020)
Image 5. Map of Candi Pawon showing the core and buffer zones.
Source: Borobudur Conservation Office (2020)

Source: Borobudur Conservation Office (2020)
c. HIA Limitation

The study limitations of the Heritage Impact Assessment of the Borobudur Temple Compounds include all structuring plans to be carried out by the Directorate General of Human Settlements, Ministry of Public Works and Public Housing with the following details:

- Cultural Zone Marking Gates, consisting of: Palbapang Gate Arrangement, Kembanglimus Gate Arrangement, and Community Center Development in Kembanglimus;
• Arrangement of Mendut-Pawon-Borobudur Cultural Axis, which consists of: Construction of the Elo River Pedestrian Bridge, Improving the Quality of the Bojong Village Environmental Road, Construction of the Progo River Pedestrian Bridge, Construction of a Pedestrian Path on the Bank of the Progo River, Improving the Quality of the Wanurejo Village Environmental Road, Improving the Quality of Sendang Lanang and Sendang Wadon, Improving the Quality of Jalan Balaputradewa;
• Arrangement of the Recipient Concourse Area and Plaza for Borobudur, which consists of: Arrangement of the Recipient Ground/Plaza, Arrangement of the Inner Court, Arrangement of the Main Concourse Route;
• Relocation of the Merchant and Parking Area to Kampung Seni Kujon.

C. Basic Information About the Borobudur Temple Compounds

1. World Heritage Name
The Borobudur Temple Compounds designated as a World Heritage at the 1991 UNESCO World Heritage Committee (WHC) meeting in Cartagena, Tunisia. Borobudur Temple, which is one of the attributes of this complex, is recognized as the largest Buddhist relic of art and monument, which together with the whole complex meet the criteria (i), (ii), and (vi).

The Borobudur Temple Compounds located in the Kedu Basin, located right in the middle of Java Island, Indonesia. Mountains and hills surround this basin. There are Mount Merbabu and Mount Merapi, which are very active to the east of the basin, while along its southern side stretches a series of hills from the Menoreh Mountains from east to west. Mount Sumbing and Mount Sindoro seem to limit this basin on the west and northwest sides, continuing with Bukit Tidar in the north. Meanwhile, Mount Andong and Mount Telomoyo are to the northeast of the basin.

2. Geographical Coordinates
The Borobudur Temple Compounds as a World Heritage consists of three temples with a Buddhist background erected in a straight line from west to east. Borobudur Temple, the largest, is on the west side. To the east, there are the smallest Pawon Temple and the slightly larger Mendut Temple, respectively. Between the Mendut and Pawon temples, two large rivers: the Progo River and the Elo River, which be conceived to be the Ganges and Yamuna Rivers' confluence, two sacred rivers in India. The coordinates of the three temples can be seen in the table below.

<table>
<thead>
<tr>
<th>Borobudur Temple Compounds</th>
<th>Latitude</th>
<th>Longitude</th>
<th>49 MT</th>
<th>UTM/MU</th>
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<tbody>
<tr>
<td>Borobudur Temple</td>
<td>07° 36’ 28&quot;</td>
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<td>412178</td>
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<td>Mendut Temple</td>
<td>07° 36’ 15&quot;</td>
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<td>Pawon Temple</td>
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<td>110° 13’ 10&quot;</td>
<td>413903</td>
<td>9159169</td>
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3. Determination/Registration Date
The Borobudur Temple Compounds were designated as a World Heritage through the Decree of the 15.COM XV World Heritage Committee under Borobudur Temple Compounds at the 15th UNESCO World Heritage Committee meeting 1991 in Cartagena Tunisia, with inventory number C 592.
II. METHODOLOGY

A. Guidelines


The World Heritage Site is a single heritage asset with clearly articulated international value. Not everything in it contributes to the OUV, but these attributes must be adequately protected.

These guidelines demonstrate a methodology that enables HIA to address world heritage sites needs by considering sites as separate entities and evaluating the impact on OUV attributes systematically and coherently. ICOMOS developed these guidelines following an international workshop in Paris in September 2009.
### B. Flow of Thought

#### STAGES OF HIA

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<thead>
<tr>
<th>Stage</th>
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<tr>
<td>Initial development and design</td>
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<td>Early consultation</td>
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<td>Identify and recruit suitable organizations to undertake works</td>
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<tr>
<td>Establish scope of work</td>
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<td>Collect data</td>
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<td>Collate data</td>
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<td>Characterize the heritage resource, especially in identifying attributes that convey OUV</td>
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<tr>
<td>Model and assess impacts, direct and indirect</td>
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<td>Draft mitigation—avoid, reduce, rehabilitate or compensate</td>
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<tr>
<td>Draft report</td>
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<tr>
<td>Consultation</td>
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<tr>
<td>Moderate the assessment result and mitigation</td>
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<tr>
<td>Final reporting and illustration—to inform decisions</td>
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<tr>
<td>Mitigation</td>
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<tr>
<td>Dissemination of results and knowledge gained</td>
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C. Description of Steps/Tasks Performed as Part of the HIA

1. Data and Documentation

There is no agreed minimum for standard inventories, data reviews, or surveys regarding conditions, although these would be useful in defining. Proportional data and documentation are required for property and management needs. At the HIA documentation stage, comprehensive data is need as far as this is possible, including archival development.

Archival development is beneficial, although not essential, for documenting and managing data collection. The assessment process can be very time-consuming, and the necessary data sources may need to be updated periodically. When data sources are in flux or the assessment schedule is very long, it may be necessary to agree to a power freeze so that the HIA Team can compare data or similar information.

Inventory should be included in the HIA report as a table in the main text appendix. Based on archives containing material information collected and stored for future use as a reference property, including location and accessibility. Good documents do not require sophisticated techniques such as GIS or complex baselines; it takes a common sense, systematic and consistent approach appropriate to property requirements.

In more complex cases, sophisticated approaches can be considered. However, the use of baseline data and GIS, 3-D modeling, changes the way HIA has been done so far. The system allows appraisal to be a much more iterative process, and as a result, the HIA will be more effective as a feedback to the design process. However, it is also possible to request "what if" scenarios from the HIA Team. It is necessary to establish principles within the report's scope for this iteration so that the HIA Team can work effectively.

2. Methods and Approaches Appropriate to Property - Maximizing Tools, Techniques, and Data Sources

Information gathering during the HIA assessment should be carried out, taking into account potential data sources. These include desk study techniques or historical research and site visits to check conditions, integrity and authenticity, sensitive perspectives, and many others. Includes terrain modeling, inter-visibility modeling to predict the impact on historic assets. It is advisable to capture and explain in clear text the attributes of both objects and intangibles, and where possible, to relate them to the final physical features that compose them.

The scope of the study in general should also be essential to ensure the strength of the HIA. Techniques should relate to a development proposal and may include non-intrusive evaluations or field tests via topographic surveys, geographic surveys, virtual scale 3D models, or other intrusive methods such as artifact collections, scientific surveys, test pits, or excavation trials. In some circumstances, evidence or collections from oral history may also be valid or useful.

Data collection should allow the attributes of Cultural Conservation to be qualified and categorized. The vulnerability factor allows to suggest changes that have been made. It is also recommended to look at the existing relationships between cultural resources to understand them as a whole. Often the relationship between the material aspects and the intangible aspects must also be included. Collecting data during the HIA development is an iterative process that often leads to the importance of the various alternatives and options in the development proposal.

One option for carrying out an assessment set out in Annex 1. In this system, the value of historical attributes assessed in terms of legal designations — international and national, and priorities or recommendations resulting from the national research agenda and the values assigned. Professional
judgment is used to determine the importance of resources. While this method should be used as objectively as possible, qualitative judgments using professional judgment are unavoidable. The possible asset value is defined using the following scale levels:

- Very High
- High
- Medium
- Low
- Negligible
- Unknown

3. Assessment of Significance

For the HIA of the Borobudur Temple Compounds, the impact significance assessment will be based on the Statement of Outstanding Universal Value and its attributes. Therefore, this guideline becomes the basis for identifying the impact of the development plan and area arrangement. Nonetheless, the HIA should collect and compile information on all aspects and cultural heritage attributes within the agreed study area. The history of property development, context, setting, and other conformity values (e.g., local and national) can be fully understood.

Understanding the meaning of the Outstanding Universal Value (OUV) of World Heritage (and other historical values) is an essential part of the HIA process. The evaluation of the significance effect (overall impact) is a function of historical value and an assessment of the scale of change and impact.

When describing World Heritage, it is essential to start by describing the attributes of the OUV. Outstanding Universal Value is the baseline data used to measure the measured impact and includes tangible and intangible aspects. A condition statement is likely to be helpful for each of the OUV attributes.

However, when the OUV becomes an essential starting point, sometimes the attributes are not detailed enough. In this case, they are attributes that will be directly useful for impact assessment work. Each property needs to be assessed, and if needed, the attributes may be specified in the HIA development process.

Some attribute definitions should not redefine extraordinary values (OUV) but rather describe attributes to aid in making decisions about proposed changes. It should be noted that the OUV is defined when a property is assigned to the World Heritage List and cannot be changed without a denomination which requires a complete evaluation process.

Preparation of themed maps or planning images is always needed to show findings and issues that arise. Spatial rendering helps show dispositions of attributes, relationships between attributes (which may be in process), and associations owned by attributes such as visual, historical, religious, communal, aesthetic, or evidence. It is advisable to reconnect attributes with OUV components in clear writing, which is not too brief but maintains the complexity of culture or other aspects in a synoptic statement or diagram. However, the HIA team must be careful with reliance on maps, as compared to human experience/understanding of places in 3 dimensions - ground-truthing is always required to check spatial relationships.

In the HIA report, the description text must be clear and comprehensive regarding attributes, both individually or in groups, which describe conditions, interests, relationships between attributes and sensitivity, and possibly indicate capacity change. It should be followed by appropriate mapping to facilitate the reader. All historical elements should be included. The components that contribute to World Heritage-owned OUV are particularly relevant and may need further detail. Inventory details should be included in
the supporting appendix so that the reader can check the assessment of each element. For example, see Annex 2.

4. Maintainable System for Conducting Impact Assessments/Evaluations

The impacts resulting from development or changes in the attributes of cultural heritage can be detrimental or beneficial. It is advisable to identify the attributes as a whole, especially attributes related to the OUV. It is important to identify the scale or degree of change or impact on attributes, which are then defined as significant impacts.

Sometimes a tendency to see impact is visual, which is often very sensitive. A broad approach is needed, as outlined in the ICOMOS Xi’an Declaration. Impacts take many forms — they can be direct or indirect; cumulative, temporary or permanent, reversible or irreversible, visual, physical, social and cultural, even economic. Impacts may arise as a consequence of a proposed development or development operation. Each needs to be considered in terms of its relevance to the OUV.

Direct impact is the impact that arises as the main consequence of the development or change of function. The direct physical impact can be in the form of a reduction in part or all of the attributes or changes to the attribute setting — that is, the surrounding environment — a place that can provide experiences, with locally owned content, embracing past and present relationships to adjacent landscapes. Development/development techniques must be carried out carefully to avoid direct impacts that cause the "loss" of physical resources and negative impacts on a resource, pattern, ensemble, setting, and spirit - from a place (spirit of place) so on. Direct impacts resulting from physical loss are generally permanent and irreversible; they generally occur due to development and are limited to a development footprint. The scale or magnitude of the impact will depend on the proportion of the affected attributes. In other words, the magnitude impact on the attributes and the extent of its main characteristics related to the OUV will be affected. Direct impacts that affect the setting of an attribute may occur due to a construction or development operational scheme that may impact. Impact assessment on settings refers to perceptible visual and aural (noise) effects that can be received at a predetermined time. Some impacts may be temporary or permanent, reversible or irreversible, depending on whether or not the causes of these impacts can be eliminated. Impacts may also be temporary if they occur sporadically or for a limited time, such as operating time or vehicle traffic frequency.

The indirect impact, as a second consequence of construction or construction operations, can result in physical loss or changes to asset settings outside of the development footprint. For example, to support development, infrastructure construction such as road networks and electricity is needed. The impact of facilitation should also be considered, namely the possibility of further actions (including those carried out by third parties) that may occur due to development facilitation.

The scale or severity of the impacts or changes that occur can be justified into direct or indirect effects and whether these impacts are temporary or permanent, reversible or irreversible. The cumulative effect of separate impacts should also be considered. The scale or severity of the impact can be ranked into the asset value as follows (see Annex 3):
The table above is a summary for impact assessment purposes. The HIA report requires an assessment of the OUV attribute - for example, in a simple table - and shows an analysis of each attribute, whether individual or collective, was obtained. This assessment includes quantitative and qualitative evaluations.

Development proposals should be tested against the policy framework and management plan of the property and its surroundings. The suitability of scales, patterns, functions, and many others should be tested according to the attributes possessed by properties that contain Outstanding Universal Value (OUV) and other assets. Strategic issues such as sightlines, architectural type, volume and surface appearance, form, functional usability, time-based existence, and so on may be relevant. Overall, it is advisable to compare the development attributes and the attributes on the site so that the development or development carried out is complimentary and can even add to the property's charm.

Changes arising from development must also be assessed for their impact related to integrity and authenticity. Properties should have baseline statements relating to integrity and authenticity at the time of listing (inscription) or when the OUV retrospective was made. The HIA report needs to present the relationship between attributes and OUV, their integrity and authenticity. Authenticity relates to how the attributes convey the OUV, and integrity is related to whether all the attributes that convey the OUV are still present in the property and are not being eroded or threatened.

<table>
<thead>
<tr>
<th>WORK PHASE</th>
<th>IMPACTED ATTRIBUTES</th>
<th>ROLE OF ATTRIBUTES ON OUV</th>
<th>TYPES OF IMPACT</th>
<th>IMPACT DURATION</th>
<th>REVERSIBILITY</th>
<th>IMPACT AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation Phase</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Construction Phase</td>
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<tr>
<td>Operational Phase</td>
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</table>

<table>
<thead>
<tr>
<th>Scale:</th>
<th>High</th>
<th>Direct</th>
<th>Permanent</th>
<th>Irreversible</th>
<th>Widen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medium</td>
<td>Indirect</td>
<td>Temporary</td>
<td>Reversible</td>
<td>Limited</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>Follow Suit</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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5. The Process of Preparing the Heritage Impact Assessment (HIA) of the Borobudur Temple Compounds

The steps required and the methods used in preparing the HIA are as follows:

a) Conducting initial screening related to development plans with the impacts that will be caused,

b) An assessment of the history, existing conditions of the Borobudur Temple Compounds as an area affected by planning and arrangement of the area. The process of searching for data (heuristic) either through desk studies of Borobudur in the form of reference books, articles, research reports, information on the web, pictures, sketches, old photos, or old maps, as well as direct observation in the field to see existing conditions and attributes,

c) Identifying the Outstanding Universal Value of the Borobudur Temple Compounds,

d) Identifying the attributes of the Borobudur Temple Compounds, including its authenticity and integrity,

e) Classifying attributes,

f) Determination of direct or indirect impacts; degree of impact (impact grading) large / medium / small / no impact at all. Including assessing the impact based on existing baselines related to the status of the Borobudur Temple Compounds as a World Heritage, National Rank Cultural Heritage, and National Strategic Areas including Management Plan, JICA Master Plan 1979, Law Number 11 Year 2010 concerning Cultural Heritage, and Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surroundings,

g) Analyze the attributes impacted on the planning proposal by entering into the impact table,

h) Provide a statement of the level of change, impact value, and analysis of assets and their attributes: accepted / not accepted/accepted with notes,

i) Provide recommendations for mitigation strategies for each affected attribute,

Image 12. The Process of Preparing HIA for the Borobudur Temple Compounds
Source. Borobudur Conservation Office

6. Stages of Heritage Impact Assessment (HIA) of the Borobudur Temple Area

The steps required and the methods used in preparing the HIA are as follows:

a) Conducting initial screening related to development plans with the impacts that will be caused,

b) An assessment of the history, existing conditions of the Borobudur Temple Compounds as an area affected by planning and arrangement of the area. The process of searching for data (heuristic) either through desk studies of Borobudur in the form of reference books, articles, research reports, information on the web, pictures, sketches, old photos, or old maps, as well as direct observation in the field to see existing conditions and attributes,

c) Identifying the Outstanding Universal Value of the Borobudur Temple Compounds,

d) Identifying the attributes of the Borobudur Temple Compounds, including its authenticity and integrity,

e) Classifying attributes,

f) Determination of direct or indirect impacts; degree of impact (impact grading) large / medium / small / no impact at all. Including assessing the impact based on existing baselines related to the status of the Borobudur Temple Compounds as a World Heritage, National Rank Cultural Heritage, and National Strategic Areas including Management Plan, JICA Master Plan 1979, Law Number 11 Year 2010 concerning Cultural Heritage, and Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surroundings,

g) Analyze the attributes impacted on the planning proposal by entering into the impact table,

h) Provide a statement of the level of change, impact value, and analysis of assets and their attributes: accepted / not accepted/accepted with notes,

i) Provide recommendations for mitigation strategies for each affected attribute,
j) Provide conclusions and mitigation recommendations for the planning and development of the Borobudur Temple Compounds.

III. REGULATIONS, GUIDELINES, AND STANDARD

A. Regulations

1. International

The Borobudur Temple compounds was designated and protected as a World Heritage through:

a. The ratification of the UNESCO Convention in 1972 concerning the Convention Concerning the Protection of the World Cultural and Natural Heritage by the Republic of Indonesia in 1989, and strengthened by Presidential Decree No. 26 of 1989, which ratified the Convention.


2. National

a. Law of the Republic of Indonesia Number 26 of 2007 concerning Spatial Planning;

b. Law of the Republic of Indonesia Number 11 of 2010 concerning Cultural Heritage;

c. Law Number 5 of 2017 concerning Cultural Advancement;

d. Government Regulation Number 36 of 2005 concerning Implementation Regulations of Law Number 28 of 2002 concerning Buildings;

e. Government Regulation Number 26 of 2008 concerning National Spatial Planning (last amended by Government Regulation Number 13 of 2017);

f. Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surroundings;

g. Presidential Regulation Number 3 of 2016 concerning Acceleration of Implementation of National Strategic Projects;

h. Presidential Regulation Number 59 of 2019 concerning the Acceleration of Economic Development in the Kendal Area - Semarang - Salatiga - Demak - Grobongan, the Purworejo Area - Wonosobo - Magelang - Temanggung, and the Brebes - Tegal - Pemalang Area;

i. Presidential Decree Number 26 of 1989 concerning Ratification of the Convention Concerning the Protection of the World Cultural and Natural Heritage;

j. Presidential Decree Number 1 of 1992 concerning Management of Borobudur Temple Tourism Park and Prambanan Temple Tourism Park and Controlling the Area's Environment;

k. Decree of the Minister of Education and Culture Number 173/M/1998 concerning Stipulation of Borobudur Temple as Cultural Heritage;

l. Decree of the Minister of Education and Culture Number 286/M/2014 concerning the Designation of the Borobudur Geographical Space Unit as a National Rank Cultural Heritage;

3. Province/Regency/District

Magelang Regency Regional Regulation Number 5 of 2011 concerning Magelang Regency Spatial Planning 2010-2030.
IV. DESCRIPTION OF THE BOROBUDUR TEMPLE COMPOUNDS

A. Background

1. Existing Conditions

The Borobudur Temple Compounds, located in Magelang Regency, Central Java, is a temple with a Buddhist background built between the end of the 8th century and the early 9th century AD during the Syailendra Dynasty. The Borobudur Temple Compounds includes three temple buildings: Borobudur Temple, Mendut Temple, and Pawon Temple. These three temples are in an imaginary straight line. Apart from the three temple buildings, which include Borobudur Temple, Pawon Temple, and Mendut Temple, in the Borobudur area, there are still several other archaeological sites and remains, namely the Yoni Brongsongan Site, the Dipan Temple Site, the Bowongan Temple Site, the Samberan Temple Site, the Yoni Plandi Site, and the Dutch Tomb in Bojong. Thus, what is called Borobudur Temple Compounds as a World Heritage (World Heritage) is the unity between the temple buildings, sites, and spaces that make up the Borobudur landscape.


a. Borobudur Temple

Borobudur Temple, as the main temple, is a stupa structure built on a hill. The base is a pyramid with five square terraces, a conical body with three circular terraces, and at the top is a large stupa. The walls and balustrades are decorated with reliefs of Karmawibahangga, Lalitavistara, Jataka, Jatakamala, Avadana and Gandawiyuha. There is a main stupa surrounded by 72 hollow stupas at the top, each containing a Buddha statue.

The vertical division of Borobudur Temple into bottom, middle, and top is an adjustment to the universe's concept in the cosmology of Buddhism. It is believed that the universe was divided into three worlds, namely Kamadhatu, Rupadhatu, and Arupadhatu. Kamadhatu, which is the basis of Borobudur Temple, symbolizes the human condition that still bound by worldly desires; Rupadhatu, which is the five square terraces of the temple, is a condition that describes humans who have abandoned their desires but still bound by names and forms; and Arupadhatu as three circular terraces and a large stupa at the
top of the temple representing a world without any form and name. The entire structure of the temple shows a unique blend of the concept of ancestor worship, as symbolized by the punden berundak shape, and the concept of attaining Nirvana for Buddhists.
Borobudur temple was arranged using square andesite stones. The shape of the structure is like a punden with steps smaller and smaller, with four stairs on each side of the cardinal directions (east, south, west, and north). The structure consists of 9 terraces consisting of 6 square terraces and three circular terraces. In between the terraces, there are floors called plateau. Borobudur Temple is 11.66 meters long, 121.38 meters wide, and 35.40 meters high.
In detail, Borobudur Temple consists of the following elements.

Statue
With the assumption that each niche and stupa contains statues, the number of statues in Borobudur Temple will be 504. At the Rupadhatu level there are 432 statues, the smaller the size and placed in a niche with details:
- Balustrade fence I: 104 statues
- Balustrade fence II: 104 statues
- Balustrade fence III: 88 statues
- Balustrade fence IV: 72 statues
- The balustrade fence V: 64 statues

At the Rupadhatu level, 432 Dhyani Buddha statues are placed in niches in all directions of the wind, namely:

<table>
<thead>
<tr>
<th>Dhyani Buddha Name</th>
<th>Location/Side</th>
<th>Hand Gesture</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aksobhya</td>
<td>East</td>
<td>Bhumisparsamudra</td>
<td>Calling the Earth to witness</td>
</tr>
<tr>
<td>Ratnasambhawa</td>
<td>South</td>
<td>Waramudra</td>
<td>Benevolence, alms giving</td>
</tr>
<tr>
<td>Amithaba</td>
<td>West</td>
<td>Dhyanamudra</td>
<td>Concentration and meditation</td>
</tr>
<tr>
<td>Amoghasidha</td>
<td>North</td>
<td>AbhayaMudra</td>
<td>Fearlessness</td>
</tr>
<tr>
<td>Wairocana</td>
<td>Level 5 balustrade (all sides)</td>
<td>Witarkamudra</td>
<td>Teaching or saying</td>
</tr>
<tr>
<td>Vajrasattva</td>
<td>Stupa on 1st, 2nd, and 3rd terrace (inside stupa)</td>
<td>Dharmacakramudra</td>
<td>Turning the Wheel of dharma (law)</td>
</tr>
</tbody>
</table>

Table 1. Dhyani Buddha Statues at Rupadhatu Level
Source Borobudur ConservationOffice
At the Arupadhatu level there are 72 statues of the same size and are placed in the stupa with details:

- Terrace I: 32 statues
- Terrace II: 24 statues
- Terrace III: 16 statues

**Stupa**

The number of stupas is 73 with details of 1 main stupa, 32 stupas on circular terrace I, 24 stupas on circular terrace II, and 16 stupas on circular terrace III. The main stupa is not perforated, while the stupa on the circular terrace has holes outside. The holes in the circular stupa I and II are in the shape of a rhombus, while on the terraces of the circular stupa III, they are rectangular. The rhombus hole philosophically means going to the level of perfection. The shape of a rhombus symbolizes an unstable state. Meanwhile, a rectangular hole means simpler or "perfect" than a rhombus which is still unstable. The shape of this rectangular hole or box symbolizes a stable state or is not easily shaken.
Relief

Borobudur Temple contains a noble message depicted through story reliefs carved on the temple walls and balustrade walls. Borobudur Temple has 1,460 story relief panels arranged in 11 rows surrounding the temple building. Besides, it also has decorative reliefs in the form of decorative reliefs totaling 1,212 panels. To read a series of reliefs it is done in a pradaksina manner, namely around the temple clockwise. The relief that is read for the first time starts from the east side. The relief stories at Borobudur Temple are divided into several parts, namely:

**Karmawibhangga Relief**

Relief Karmawibhangga is a relief at the foot of the temple (level I) that reveals human actions regarding virtue and evil and all its consequences. Every human act that is evil or bad will get retribution in the form of torment in hell, and humans who did well during his life will be rewarded in heaven. The Karmawibhangga relief, with a total of 160 panels, is thought to have been closed deliberately at the time when the Borobudur Temple was still under construction. Probably due to technical reasons to hold the load on the building so as not to slide.

**Lalitavistara Relief**

Lalitavistara relief is located on level III of the upper wall, which consists of 120 panels. This relief depicts the life history of the Buddha Gautama. Starting when the god in heaven
Tushita granted the Bodhisattva's request to come down to the world to become a human named Siddharta Gautama until he delivered his first sermon in the Deer Park.

Jataka-Avadana Relief

The Jataka-Avadana relief is located on the lower part of the temple wall in the first (level III) hallway, the upper and lower part of the balustrade wall, and the balustrade wall in the second hallway (level IV). Relief Jataka-Avadana is Buddha's previous life before being born as a human named Siddharta Gautama. Jataka is a story about a Bodhisattva who experiences repeated births in his various forms to help people attain the path of Buddhahood. In these stories, the Bodhisattva — both human and animal — always exemplifies the truth and teachings of the Dharma. Meanwhile, Avadana is a heroic story. Avadana is similar to the Jataka story, but the main character is not a Buddha, but another character or an ordinary animal, not a Bodhisattva incarnation. The Jataka relief is located on the inner level III balustrade of 500 panels and 120 panels on the level III wall. A total of 100 panels of Jataka-Avadana follow-up are located at level IV so that the total relief of Jataka-Avadana is 720 panels.

The first line of Avadana stories on the reliefs of the first hallway (level III) temple walls, the bottom row begins with the story of Sudhanakumaradhana, also known as Princess Manohara. Other Avadana stories that also lie in the same row include the Rudrayana story and the Maitrakanyaka story.

The story of the Bodhisattva incarnation in various animals or Jataka is more engraved on the inner balustrade, either on the top or bottom row. The Jataka story includes: the story of the quail, the story of the rabbit, the story of the turtle, and the woodpecker’s story.

Gandavyuha Relief

Gandavyuha reliefs are engraved on the temple walls at levels IV, V, and VI. This relief depicts Sudhana’s wanderings from one teacher to another to attain Buddhahood. Gandavyuha relief at level IV is sculpted on 128 panels. Relief describes the story of meeting a merchant
named Sudhana with his good friends in search of wisdom. Sudhana admired Maitreya for her affection for all animals and living things. Finally, Sudhana obtained the wisdom knowledge from Maitreya that all living beings can be good and valuable friends. Thanks to the teachings of his friend Sudhana received life enlightenment.

The relief at level V is a continuation of the story at level IV, which describes Bodhisattva Maitreya's history as a future Buddha. There are 88 panels on the temple walls and 88 panels on the balustrade. Maitreya Bodhisattva is known for the small stupa on his crown. At level VI, there are 72 panels of Gandavyuha relief on the balustrade and 84 panels on the temple walls. The 72 panels probably depict the life of a Samantabhadra Bodhisattva. The story takes the form of Sudhanakumara's vow to follow the Bodhisattva Samantabhadra as an example. This bodhisattva is considered to be the future Buddha. Meanwhile, the 84 panels of Gandavyuha at level VI (the top hall) describe Bodhisattva Maitreya's history.
According to Buddhism, the lion is the Buddha's vehicle when he ascends to heaven and a symbol of the power to repel evil influences to maintain Borobudur Temple's sanctity. The number of lion statues in Borobudur Temple is 32. The position of this lion statue is at the four doors up to Borobudur Temple.
b. Pawon Temple

Pawon Temple is located between Mendut Temple and Borobudur Temple, 1.75 KM away from Borobudur Temple. Pawon temple was discovered in the late 19th century in a state of disrepair, buried under bushes, and began to be repaired in 1903. This worship building is one of the Buddhist temples thought to have been built by the Syailendra dynasty between the VIII-IX centuries AD. However, the construction time is not known because no data is strong enough. According to Casparis, Pawon Temple was the place to store King Indra's ashes (782-812 AD), the father of King Samarrattungga from the Syailendra Dynasty. In the room of the body of Pawon Temple, at first was thought a Boddhisattva statue as a form of respect to King Indra, who was considered to have reached the Bodhisattva level. Experts argue that Pawon Temple is the gateway to Borobudur Temple, as a place for people to cleanse their bodies and minds from mental defilements.

c. Mendut Temple

Mendut Temple is located on Jalan Mayor Kusen, Mendut Village, Mungkid District, Magelang Regency, Central Java Province, about 3 KM from Borobudur Temple. This temple was first rediscovered in 1836. At that time, it was in a state of collapse, covered with soil, and overgrown with shrubs, then that year, the temple began to be cleaned. All Mendut temple buildings were found, except for the roof. Mendut Temple measures 10 x 10-meters and 13.3 meters high. Inside the temple room, there are three Buddha statues, namely the Sakyamuni statue sitting cross-legged, acting while performing a sermon, and Avalokitesvara's statue Bodhisattva and; the statue of Maitreya as a Bodhisattva. There are 31 relief panels on the outer wall, including the reliefs of the story of Brahmana and Crab, Goose and Turtle, Two parrots: Dharmabuddhi and Dustabuddhi.
d. Geology and Landform

e. Ecological Context (flora and fauna, water and drainage, climate, etc.)

f. History of Restoration of Borobudur Temple

Borobudur Temple itself has undergone two restorations. The first restoration was carried out in 1907-1911 by Van Erp during the Dutch East Indies period. In 1973-1983 the second restoration carried out by the Indonesian government, assisted by UNESCO and donor countries.

**Van Erp Restoration (1909-1911)**

Restoration I was entirely financed by the Dutch East Indies government. The restoration target is aimed chiefly at the top of the temple, namely the three circular terraces and the central stupa. However, the stupa's top part (chattra) could not be replaced because some of the stones were not founded. Restoration at the bottom is more of a patchwork nature, such as repairing/leveling the hallway, repairing the walls and balustrades without demolition, and still looking sloping. Conservation efforts have been made since the first restoration by the Dutch East Indies government. Meanwhile, the process of damage and weathering of the stones of Borobudur Temple, caused by various factors, continues. From the results of research conducted by a committee formed in 1924, it was found that
there were three causes of damage, namely corrosion, mechanical work, as well as the stress and stress strength in the stones themselves (O.V. 1930: 120-132).


After the Van Erp restoration was completed in 1911, the maintenance of Borobudur Temple continued. Based on a comparison between the conditions at that time and the photos made by Van Erp in the previous ten years, it is known that the process of damage to the Borobudur Temple continues and is getting worse. The damage, especially to the relief walls, was damaged due to the influence of the climate. Besides, the temple building was also threatened by damage. With Indonesia’s entry as a member of the United Nations, Indonesia automatically becomes a member of UNESCO. Through this UNESCO institution, Indonesia began to appeal to the international community to help save this historic building. The effort was successful, with funding from Pelita and UNESCO funds. In 1975 a complete restoration began. Because at the Arupadhatu level, the condition was still good, only the lower level was dismantled and restored.
Source  Borobudur Conservation Office

Source  Borobudur Conservation Office
B. Outstanding Universal Values and Attributes

1. Statement of Outstanding Universal Values

   Based on a retrospective statement of outstanding universal value established in 2012, the Borobudur Temple Compounds meets the following criteria (i), (ii), and (vi):
| Criteria (i) | Borobudur Temple Compounds with its stepped, unroofed pyramid consisting of ten superimposing terraces, crowned by a large bell-shaped dome is a harmonious marriage of stupas, temple and mountain that is a masterpiece of Buddhist architecture and monumental arts. |
| Criteria (ii) | Borobudur Temple Compounds is an outstanding example of Indonesia’s art and architecture from between the early 8th and late 9th centuries that exerted considerable influence on an architectural revival between the mid-13th and early 16th centuries. |
| Criteria (vi) | Laid out in the form of a lotus, the sacred flower of Buddha, Borobudur Temple Compounds is an exceptional reflection of a blending of the very central idea of indigenous ancestor worship and the Buddhist concept of attaining Nirvana. The ten mounting terraces of the entire structure correspond to the successive stages that the Bodhisattva has to achieve before attaining to Buddhahood. |
2. **Integrity and Authenticity**

| **Wholeness** | The Borobudur Temple area includes three temples connected in an imaginary straight line. Although the visual relationship between Mendut Temple, Pawon Temple, and Borobudur Temple can no longer be seen, the three's dynamic function is still maintained. This chain's main threat is developments that can damage or change the unique relationships between the building and its surroundings, thereby affecting the site's outstanding universal value. The current weakness of development regulations has also affected the site to some extent. Likewise, the tourism sector has put considerable stress on the site and the surrounding area. Weathering of rocks is increasing due to environmental factors, including solar heat, rainfall, temperature changes, etc. Damage in the form of wear and tear on stairs and floors also occurred due to unsupervised visits. Borobudur Temple is also in a disaster-prone area of Mount Merapi. The eruption of Mount Merapi that occurred in 2010, especially the acid from the remaining volcanic ash, became one of the main threats to the site. |
| **Authenticity** | The restoration of the temple, carried out in two stages in the 20th century, still uses original materials. The first phase of restoration was carried out in 1907-1911, and the second was carried out in 1973-1983. Most of the original materials are still used with some additional new materials as a consolidation and improvement of the drainage system, which no longer has a significant adverse effect on the temple's authenticity. Although the current condition of Borobudur Temple is the result of restoration, the original material found is sufficient and allows restoration to be carried out. Today, the temple compound is a pilgrimage site for Buddhists. Unfortunately, the overall atmosphere as a pilgrimage place is not supported by proper regulation of commercial activities and pressure caused by inadequate tourism management strategies. |
3. Attribute

Referring to the entire contents of the retrospective statement of outstanding universal value, the attributes of the Borobudur Temple Compounds can be formulated as follows:
<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V. BOROBUDUR NATIONAL TOURISM STRATEGIC AREA PLAN</strong></td>
<td></td>
</tr>
<tr>
<td><strong>attribute 1</strong></td>
<td><strong>Three Temple Buildings:</strong> Borobudur, Pawon, and Mendut along with all the elements, namely form, material, terrace arrangement, relief, and stupa. These three temple buildings are protected in SP-1 of Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and its Surroundings.</td>
</tr>
<tr>
<td><strong>attribute 2</strong></td>
<td><strong>An imaginary corridor that connects Mendut, Pawon, and Borobudur temples,</strong> which symbolizes the stages of attaining Nirvana. The corridor which is also known as the Borobudur - Pawon - Mendut super corridor is protected in the SP-1 of Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and its Surroundings.</td>
</tr>
<tr>
<td><strong>attribute 3</strong></td>
<td><strong>Borobudur Cultural Landscape</strong> which consists of elements of the natural and cultural environment of the community including the rural atmosphere, traditions, agriculture, surrounding temples that have been discovered or not, and views from Borobudur to the surrounding mountains. All of these elements are historical settings for the Borobudur Temple Compound which is protected in SP-2 in Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and its Surroundings.</td>
</tr>
<tr>
<td><strong>attribute 4</strong></td>
<td><strong>The footprints of the ancient lake are proof that the Borobudur Temple Compounds is in a water environment like a lotus (Buddha's sacred flower). The traces of this ancient lake are protected as a historical setting in Presidential Regulation Number 58 of 2014 concerning the Spatial Plan for the Borobudur Area and its Surroundings.</strong></td>
</tr>
<tr>
<td><strong>attribute 5</strong></td>
<td><strong>Architectural and Art elements in the Borobudur Temple Compounds, including spatial arrangement, stone arrangement, temple construction technology, work on the arrangement of a distinctive terraces, material selection, arrangement of statues position, water channel system (jaladwara), sculpture, decorative arts, art statues, and the art of symbolism. All elements in this attribute are protected in SP-1 Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and its Surroundings and are preserved as inspiration in the present and the future.</strong></td>
</tr>
<tr>
<td><strong>attribute 6</strong></td>
<td><strong>Ability to Integrate Old and New Cultural Elements and Multicultural or Inclusive Traits.</strong> This attribute is preserved through sustainable development policies and inclusive policies in the use of the Borobudur Temple Compounds for the purposes of religion, research, education, tradition, tourism, and other interests.</td>
</tr>
</tbody>
</table>
1. Nature of the Development Plan
   a. General Plan for the Arrangement of the Borobudur Temple Compounds
      The general arrangement of the Borobudur Temple Compounds consists of:
      • Gate to Mark Cultural Area
      • Arrangement of the Cultural Axis Path: Mendut - Pawon - Borobudur
      • Arrangement of Borobudur Concourse Area
      • Relocation of the Merchant Area and Parking in the Buffer Zone to the Borobudur Art Village in Kujon
   b. Goals, Vision, and Principles of Arranging the Borobudur Temple Compounds
The primary purpose of structuring the Borobudur Temple Compounds Area is to preserve the Borobudur Area as a World Heritage Site and develop the Borobudur Area as a world-class tourism destination. The conditions and reasons for the need for a comprehensive, integrated arrangement to support the Borobudur Temple Compounds' protection are as follows:

- The accumulation of tourists in the area of Borobudur Temple,
- Visitor appreciation for World Heritage is still low,
- Site interpretation is still limited,
- The condition of the physical endurance of Borobudur Temple which is increasingly vulnerable,
- The area outside Borobudur Temple has not yet been developed as an alternative tourist destination for distributing the burden of visits to the Borobudur Temple Compounds.

The vision of the Borobudur Temple Compounds arrangement is that the Borobudur area must be able to become a sustainable, resilient, yet inclusive area to become a place of education, research, and tourism of world-quality history, culture, and nature.

The principles of structuring the Borobudur Temple Compounds are as follows:

- Preserving and strengthening the Outstanding Universal Value (OUV) of the Borobudur Temple Compounds;
- Management Plan for the Borobudur Temple Compounds and Presidential Regulation Number 58 of 2014 as a reference for development and arrangement;
- Emphasize the educational aspects and interpretation of the OUV values of Borobudur Temple;
- Control of carrying capacity related to the preservation (protection, development, utilization) of Borobudur Temple;
- Integrated structuring program with ITMP-BYP and BVMP planning;
- Optimization of development outside the core and buffer zones to reduce the concentrated load on Borobudur Temple while maintaining the landscape elements of the area;
- Development programs oriented towards empowering local - rural potential and improving the community's welfare and the local area (according to the mandate of Law Number 11 of 2010 concerning Cultural Heritage).
c. Detailed Plan for the Arrangement of the Borobudur Temple Compounds

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<th>LOKASI PENATAAN</th>
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<td>MASTER PLAN JICA 1979</td>
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<tr>
<td>A GERBANG PENANDA KAWASAN BUDAYA</td>
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<td>Penataan Gerbang Palbapang</td>
<td>ZONA 3</td>
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<td>Penataan Gerbang Kembanglimus</td>
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<tr>
<td>Pembangunan Community Center Kembanglimus</td>
<td>ZONA 4-5</td>
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<tr>
<td>B PENATAAN JALUR AKSIS BUDAYA; MENDUT—PAWON—BOROBUDUR</td>
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<td>Pembangunan Jembatan Pejalan Kaki Sungai Elo</td>
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<td>Peningkatan Kualitas Jalan Lingkungan Desa Bojong</td>
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<td>Pembangunan Jalur Pajualan Kaki di Tepian Sungai Progo</td>
<td>ZONA 3</td>
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<td>Pembangunan Jembatan Pejalan Kaki Sungai Progo</td>
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<tr>
<td>Peningkatan Kualitas Sendang Lanang dan Sendang Wador, Desa Wanurejo</td>
<td>ZONA 3</td>
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<tr>
<td>Peningkatan Kualitas Jalan Lingkungan Desa Wanurejo</td>
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<td>Peningkatan Kualitas Jalan Balaputradewa</td>
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<tr>
<td>C PENATAAN AREA CONCOURSE DAN PLAZA PENERIMA BOROBUDUR</td>
<td>ZONA 1-2</td>
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<tr>
<td>Penataan Pelataran/Plaza Penerima</td>
<td>ZONA 1-2</td>
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<tr>
<td>Penataan Pelataran Dalam (Courtyard)</td>
<td>ZONA 1-2</td>
</tr>
<tr>
<td>Penataan Jalur Concourse Utama</td>
<td>ZONA 1-2</td>
</tr>
<tr>
<td>D PEMINDAHAAN AREA PEDAGANG DAN PARKIR KE KAMPUNG SENI KUJON</td>
<td>ZONA 3</td>
</tr>
</tbody>
</table>
### d. Development Concept and Benefit Value of Arrangement of Borobudur Temple Compounds

<table>
<thead>
<tr>
<th>NO</th>
<th>DEVELOPMENT PROGRAM</th>
<th>PROGRAM DETAIL</th>
<th>DESCRIPTION/DEVELOPMENT CONCEPT/BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>CULTURAL DISTRICT IDENTITY GATE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>PALPABANG GATE From YOGYAKARTA</td>
<td>BUILDING: 1. Gate 2. Hall 3. Supervisor Room/Security Post/MEP 4. Rest room 5. Garden/landscape</td>
<td>a) The Cultural Identity Gate Development will STRENGTHEN THE CONCEPT OF IICA 1979 ZONATION TO SUPPORT THE CONSERVATION OF BOROBUDUR AND IMPROVE THE OU'Vs OF BOROBUDUR TEMPLE, since the signage will affirm the existence of a cultural heritage, as well as become public space for education and interpretation of the cultural heritage at a wider area.</td>
</tr>
<tr>
<td>2.</td>
<td>BLONDO GATE From SEMARANG</td>
<td>BUILDING: 1. Gate 2. Prayer room 3. Toilet 4. Bike Station 5. MEP and Supervisor Room 6. Parking Area</td>
<td>b) The building of the gate with its supporting facilities at 4 (four) locations is THE INTEGRAL PART IN VISITOR MANAGEMENT in Borobudur Temple Compound (ITMP, BYP, and BVMP) and will bring positive contributions towards the conservation of the region in:</td>
</tr>
<tr>
<td>3.</td>
<td>SALAMAN GATE From PURWOREJO</td>
<td>1. Gate</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>NO</th>
<th>DEVELOPMENT PROGRAM</th>
<th>PROGRAM DESCRIPTION</th>
<th>DESCRIPTION/DEVELOPMENT CONCEPT/BENEFITS</th>
</tr>
</thead>
</table>

| B. | MENDUT – PAWON – BOROBUDUR CULTURE AXIS PATHWAYS | | |
| 1. | Pedestrian Bridge over Kali Elo 2. Pedestrian Bridge over Kali Progo 3. Bojing Neighborhood Street Improvement 4. Pedestrian on Kali Progo Riverside 5. Wanurejo Village Neighborhood Street 6. Development of Sendang Lanang and Sendang Wadon at Wanurejo 7. Jalan Putradewa 8. Inscription Heritage Trail | 1) Development of Cultural Axis Pathway to strengthen the integrity concept in supporting the linkage of Borobudur, Mendut, and Pawon and strengthen the UO'Vs. 2) Development of Cultural Axis Pathway to control the visitor flow in the compound, to reduce the volume of visit to Borobudur Temple while maintaining the carrying capacity of Borobudur Temple Compounds, 3) Development of Cultural Axis Pathway to foster the development the surrounding villages and communities in the region to improve the communities' prosperity. |

**POTENTIAL IMPACTS OF CULTURAL AXIS PATHWAY DEVELOPMENT: MPB**

a) The building CULTURAL AXIS PATHWAY (Mendut – Pawon – Borobudur) is the integral part in visitor management in Borobudur Temple Compound (ITMP, BYP, and BVMP) and will bring positive contributions towards the conservation of the region in:
<table>
<thead>
<tr>
<th>NO</th>
<th>DEVELOPMENT PROGRAM</th>
<th>PROGRAM DETAIL</th>
<th>DESCRIPTION/DEVELOPMENT CONCEPT/BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>▪ Diverting the visit load to the area outside Borobudur Temple,</td>
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<td></td>
<td></td>
<td></td>
<td>▪ Decreasing the tourist load to Borobudur,</td>
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<td></td>
<td></td>
<td></td>
<td>▪ Maintaining the carrying capacity of Borobudur Temple Compounds</td>
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<td></td>
<td></td>
<td></td>
<td>▪ Creating interaction space with local communities to support the community empowerment and village potential development.</td>
</tr>
<tr>
<td>b)</td>
<td>The building CULTURAL AXIS PATHWAY (Mendut – Pekak – Borobudur) will strengthen the OUVs and integrity of Borobudur Temple Compounds, heritage, creating public space for education and interpretation of the cultural heritage at a wider area.</td>
<td></td>
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</tbody>
</table>

C. BOROBUDUR CONCOURSE AREA

1. In Gate – Ticket Booths
2. Inner Plaza (Pre-Concourse)
3. Main Boulevard / Concourse

a) The building of Concourse area is the integral part in visitor management in Borobudur Temple Compound (ITMP, BYP, and BVMP) and will bring positive contributions towards the conservation of the region in:
   ▪ Restoring the condition to JICA 1979 Master Plan
   ▪ Managing and controlling the visitors flow and volume in the temple compound (Zone 1 and 2)
   ▪ Decreasing and controlling the tourist load to Borobudur
   ▪ Maintaining the carrying capacity of Borobudur Temple Compounds (Zone 1 and 2)

b) The development of the Concourse area will strengthen the OUVs of Borobudur Temple by:
   ▪ Restoring the green belt in Zone 2 as buffer zone
   ▪ Creating public space for education and interpretation of the cultural heritage at a wider area.

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<thead>
<tr>
<th>NO</th>
<th>DEVELOPMENT PROGRAM</th>
<th>PROGRAM DETAIL</th>
<th>DESCRIPTION/DEVELOPMENT CONCEPT/BENEFITS</th>
</tr>
</thead>
</table>
| D. | RELOCATION OF COMMERCIAL AND PARKING AREA (ZONE 2) TO THE BOROBUDUR VILLAGE ART MARKET AT KUJON (ZONE 3) | 1. Information Center
2. Souvenir shops and eateries
3. Cultural Creative Center
   - Workshop
   - Multifunction Hall
   - Amphitheater for community art performances
   - Cultural Festival
   - Installation
4. Supervisor Room, Security Post, MEP
5. Shuttle Service
6. Parking Area
7. Landscape: Rock Garden, Forest | a) The development of PARKING - COMMERCIAL AREA is the integral part in visitor management in Borobudur Temple Compound (ITMP, BYP, and BVMP) and will bring positive contributions towards the conservation of the region in:
   ▪ Restoring the condition to JICA 1979 Master Plan
   ▪ Decreasing the density of parking at Zone 2
   ▪ Managing and controlling the visitors flow and volume in the temple compound (Zone 1 and 2)
   ▪ Decreasing and controlling the tourist load to Borobudur
   ▪ Maintaining the carrying capacity of Borobudur Temple Compounds (Zone 1 and 2)

b) The development of PARKING - COMMERCIAL AREA will strengthen the OUVs and integrity of Borobudur Temple Compounds by:
   ▪ Restoring the green belt in Zone 2 as buffer zone
   ▪ Creating public space for education and interpretation of the cultural heritage at a wider area. |
INTEGRATION OF THE PROGRAM PLANNED BY THE MINISTRY OF PUBLIC WORKS AND HOUSING (PUPTR) TOWARD THE PRINCIPLES OF IMPROVEMENT AND DEVELOPMENT OF BOROBUDUR AREA

<table>
<thead>
<tr>
<th>NO</th>
<th>THE PRINCIPLES OF IMPROVEMENT AND DEVELOPMENT</th>
<th>KEY WORDS</th>
<th>DEVELOPMENT PROGRAMS</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Preserving and strengthening the OUTSTANDING UNIVERSAL VALUE (OUV) of Borobudur Temple Complexes</td>
<td>PROTECTING AND STRENGTHENING OUTSTANDING UNIVERSAL VALUE (OUV) - INTEGRITY and AUTHENTICITY</td>
<td>A. CULTURE DISTRICT IDENTITY GATE (GATES used to HIGHLIGHT CONTROL ZONES &amp; PLACE IDENTITY)</td>
</tr>
<tr>
<td>2.</td>
<td>MASTER PLAN JICA 1979 as a reference for development program</td>
<td>IMPLEMENTING GUIDELINES BASED ON THE JICA MASTER PLAN 1979</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Emphasizing ON EDUCATION AND INTERPRETATION aspects of the Outstanding Universal Value (OUV) of Borobudur Temple Complexes</td>
<td>ENHANCING EDUCATION THROUGH INTERPRETATION</td>
<td>B. MENDUT-PAYAWON-BOROBUDUR CULTURAL AXIS PATH (developing a CLEAR CULTURAL - PILGRIMAGE PATH across the three temples – Mendut, Payawon, Borobudur)</td>
</tr>
<tr>
<td>4.</td>
<td>Maintaining CARRYING CAPACITY for visitors in order to support the preservation of Borobudur Temple Complexes</td>
<td>ENDURING STRICT IMPLEMENTATION OF CARRYING CAPACITY</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>The development plan IS AN INTEGRATED PART of the ITMP Borobudur-Yogyakarta-Prambanan (BYP) and Borobudur Visitor Management Plan (BVMP)</td>
<td>INTEGRATED PROGRAM WITH ITMP BYP &amp; BVMP</td>
<td>C. IMPROVEMENT OF BOROBUDUR CONCOURSE AREA (CONCOURSE AREA developed following JICA MASTER PLAN GUIDELINES, 1979)</td>
</tr>
<tr>
<td>6.</td>
<td>Optimizing of development plan OUTSIDE of ZONE 1 AND 2 to reduce visitor concentration in the Borobudur Temple area, while maintaining the landscape elements of the region</td>
<td>ENCOURAGING VISITOR DISPERSAL INTO PERIPHERAL AREAS</td>
<td>D. RELOCATION OF THE COMMERCIAL AND PARKING AREA (ZONE 2) TO TO THE VILLAGE ART MARKET AT KUJON (ZONE 3) → HAWKER &amp; STALL AREA developed as an ART BAZAAR located OUTSIDE ZONE 2)</td>
</tr>
<tr>
<td>7.</td>
<td>Supporting the EMPOWERMENT OF POTENTIAL RURAL ECONOMY and IMPROVING WELFARE of the LOCAL COMMUNITY AND REGION (according to the mandate of Law No. 11/2010, concerning Cultural Heritage)</td>
<td>ENHANCING COMMUNITY DEVELOPMENT - EMPOWERMENT</td>
<td></td>
</tr>
</tbody>
</table>

**A. Gate Marking Cultural Area**
1. Location Considerations
   • The Area Marker Gate is located far from Borobudur Temple so that it is effective as a visit control function and reduces the burden on visits that are concentrated at Borobudur Temple;
   • Development of Kembanglimus Village facilities to support the Kembanglimus Gate, a community center for community empowerment that is integrated with the rest area embryo and the Kembanglimus Balkondes so that it can support the leverage of the village potential and strengthen the economic development of Kembanglimus Village.

2. Justification of Gate Arrangement for Cultural Area Markers
   a. Philosophical Aspects
      • Strengthening the zoning concept of the JICA Master Plan (1979) by making physical elements as markers of cultural areas at specific points and routes that become accessible to the Borobudur area, as well as reinforcing elements in entering controlled zones
      • Strengthening the aspect of placemaking/place identity towards the Borobudur area as an area with a unique blend of cultural landscapes and a broader landscape, not only Borobudur Temple as the only destination that can be seen and explored;
      • Assist in controlling the flow of visits (visitor flow) within the area to reduce the volume of visits at Borobudur Temple and support the carrying capacity aspects of Borobudur Temple's visits.
   
   b. Functional Aspects
      • Area Marking Gates apart from being an element of emphasizing cultural preservation areas, are also information & education facilities for visitors and with their location settings support the empowerment of local and local economic potentials with a tourism and cultural function (community culture center);
      • The Area Marker Gate is a transitional space as a stop (rest area) for visitors going to the Borobudur area so that it will function effectively to help control/direct visitor movements so that they do not go directly to Borobudur Temple and can reduce the burden of a centralized visit to Borobudur Temple.

3. Concept of Physical Design of Cultural Area Marking Gates
   • The physical form of the area marking gate elements adjusts the character of the cultural area (culture-heritage), takes inspiration from Buddhist values and outstanding universal values (OUV) from the Borobudur Temple Compounds, and has interpretive and educational values that strengthen OUV;
   • The physical formation of the area marking elements from Buddhism's values is the depiction of lions and elephants found in Borobudur Temple. Simultaneously, the physical formations of the universal marker elements are Kalpataru (tree of life) and cruiser/Samudraraksa, combined with landscape elements to create a green environment.

4. Value of Benefits — Positive Contribution of Gate Arrangement for Marking Cultural Areas
a. The construction of a marker gate will strengthen the zoning concept of the JICA Master Plan (1979) in supporting the preservation of Borobudur Temple and strengthening the OUV of the Borobudur Temple Compounds because the marker element will emphasize the existence of the cultural Area as well as become a space for education and interpretation of cultural heritage values in the broader Area. Large;

b. The construction of the Cultural Zone Marking Gate and its supporting facilities is an integrated part of the development of visitor management in the Borobudur Area (ITMP-BYP and BVMP) which will make a positive contribution to efforts to conserve the Area for:
   - Spread the burden of visiting outside the Area of Borobudur Temple because the location of the gate to mark the Area will be a stopover point as well as a destination;
   - Reducing concentrated visits to Borobudur Temple;
   - Maintaining carrying capacity in the Borobudur Temple area

c. The construction of a Community Center in Kembanglimus as a supporter of the Regional Marking Gates in Kembanglimus will be able to synergize and strengthen the existence of Balkondes Kembanglimus to support community empowerment and the development of product potential and rural economy.

### INTEGRASI PROGRAM PENATAAN GERBANG DGN PRINSIP PELESTARIAN KAWASAN BOROBUDUR

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<tr>
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<th>PRINSIP PENGEMBANGAN dan PENATAAN KAWASAN BOROBUDUR</th>
<th>PROGRAM PENATAAN KSPN BOROBUDUR (KEMENPUPR)</th>
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<tr>
<td></td>
<td>PENATAAN GERBANG PENANDA KAWASAN</td>
<td>DESKRIPSI KESUASTAN DAN PEMENUHAN KRITERIA PELESTARIAN KAWASAN BOROBUDUR</td>
</tr>
</tbody>
</table>
| 1. | STRENGTHENING OUTSTANDING UNIVERSAL VALUE (OUV) & INTEGRITY  
   • Melestarikan dan memperkuat OUTSTANDING UNIVERSAL VALUE (OUV) Candi Borobudur – Integrity and Authenticity | √ | Pengembangan gerbang penanda kawasan budaya berfungsi sebagai unsur penegak memasuki area terkontrol (controlled zone) sehingga akan memperkuat nilai-nilai OUV yang mendukung pelestarian dan eksistensi Bangunan Candi dan lansekapnya |
   • MASTER PLAN JICA 1979 sebagai acuan pengembangan dan penataan | √ | Gerbang penanda kawasan budaya berada di luar zona 1 dan 2, bahkan di luar zones terluar pelestarian JICA (zona 5), dapat menjadi unsur penanda visual / place making memasuki kawasan Pelestarian Borobudur |
| 3. | ENHANCING EDUCATION THROUGH INTERPRETATION  
   • Menekankan aspek EDUKASI DAN INTERPRETASI nilai-nilai OUV Candi Borobudur | √ | Gerbang penanda kawasan budaya akan memiliki ruang dan elemen informasi dan interpretasi terhadap nilai-nilai OUV Candi Borobudur, sehingga memperkuat fungsi edukasi dan interpretasi bagi pengunjung. |
| 4. | ENSURE STRICT IMPLEMENTATION OF CARRYING CAPACITY.  
   • Pengendalian CARRYING CAPACITY terkait pelestarian (pelindungan, pengembangan, pemanfaatan) Candi Borobudur | √ | Pengembangan gerbang penanda kawasan budaya akan menjadi titik kunjungan baru, serta menjadi ruang transisi dan pengarah kunjungan ke kawasan Borobudur sehingga akan dapat menjadi fungsi kontrol kunjungan (visitor management) dan mendukung pencapaian carrying cappacity. |
### INTEGRASI PROGRAM PENATAAN GERBANG DGN PRINSIP PELESTARIAN KAWASAN BOROBUDUR

<table>
<thead>
<tr>
<th>No</th>
<th>PRINSIP PENGEMBANGAN dan PENATAAN KAWASAN BOROBUDUR</th>
<th>PROGRAM PENATAAN KSPN BOROBUDUR (KEMENPUPR)</th>
<th>PENATAAN GERBANG PENANDA KAWASAN</th>
<th>DESKRIPSI KESESUAIAN DAN PEMENUHAN KРИTERIA PELESTARIAN KAWASAN BOROBUDUR</th>
</tr>
</thead>
</table>
| 5. | INTEGRATED PROGRAM WITH ITMP, BYP & BVMP.  
   • Program penataan TERINTEGRA\SI DENGAN PERENCAN\AA ITMP BYP dan BVMP | ✓ | Pengembangan gerbang penanda kawasan budaya menjadi bagian perencanaan ITMP BYP dan BVMP untuk memperkuat pengembangan simpul-simpul kegiatan yang lebih menyebar sebagai bagian dari pengembangan visitor management di luar komplek Candi Borobudur. |
| 6. | ENCOURAGING VISITOR DISPER\SA\L INTO PERIPHERAL AREAS  
   • Optimalisasi PENGEMBANGAN DI L\UAR ZONA 1 DAN 2 untuk mengurangi beban terpusat di komplek Candi Borobudur, dengan tetap mempertahankan unsur lansekap kawasan. | ✓ | Gerbang penanda kawasan budaya berada di luar zona 1 dan 2 (bahkan di luar zonasi pelestarian JICA) memiliki fasilitas pendukung yang dapat berfungsi sebagai daya tarik wisata sejalan dengan upaya penyebaran aktivitas untuk mengurangi beban kunjungan terpusat di Candi Borobudur. |
| 7. | ENHANCING COMMUNITY DEVELOPMENT & EMPOWERMENT.  
   • Program Pengembangan berorientasi pada PEMBERDAYAAN POTENSI LOKAL – PEDE\SAAN DAN PENINGKATAN KESEJAHTERAAN MASYARAKAT/ WILAYAH SETEMPAT. | ✓ | Menata gerbang sebagai elemen penanda kawasan budaya yang sekaligus berfungsi sebagai ruang dan fasilitas usaha (makanan-minuman, cincremerat produ\k lokal) dan ruang ekspresi semi budaya lokal untuk meningkatkan pemberdayaan masyarakat setempat. |

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### KONSEP PENATAAN GERBANG PENANDA KAWASAN BUDAYA

<table>
<thead>
<tr>
<th>NAMA GERBANG</th>
<th>INTERPRETASI (INTANGIBLE)</th>
<th>TITIK LOKASI PENGEMBANGAN</th>
<th>IMAGE DEVELOPMENT</th>
</tr>
</thead>
</table>
| GERBANG PALBAPANG  
Akses dari arah YOGYAKARTA | IMAGE SINGA:  
“S\inga – penjaga pintu utama, sekali\g melambangkan kekuatan, keberanian, kemenganan serta kemampuan untuk melindungi” | | |
| GERBANG DAN COMMUNITY CENTER KEMBANGLIMUS  
Akses dari arah PURWOREJO | IMAGE GA\|A\:  
“Gajah dalam relief Candi digambarkan sbg penwujudan bodhivasta yang selalu berusaha untuk berbuat baik, & menjadi sahabat manusia ” | | |
5. Arrangement of the Palbapang Gate

<table>
<thead>
<tr>
<th>NO</th>
<th>PROGRAM KEGIATAN</th>
<th>JABARAN KEGIATAN</th>
<th>RINCIAN DESAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>GERBANG PENANDA KAWASAN BUDAYA</td>
<td>PEMBANGUNAN FASILITAS:</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>GERBANG PALBABANG Abu dan arah YOCYAHAWITA</td>
<td>1. Pembangunan Gerbang</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>2. Hall / Ruang Serbaguna</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>3. Ruang Pengekla / Security / MEP</td>
<td></td>
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<tr>
<td>4</td>
<td></td>
<td>4. Töökef / rest room</td>
<td></td>
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<tr>
<td>5</td>
<td></td>
<td>5. Tamanpanas</td>
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</tbody>
</table>
• The lion is the figure of the temple's primary gatekeeper and the king of the beasts, who symbolizes strength, courage, victory, and the ability to protect.
• Palbapang Gate with a Lion icon is the Regional Marking Gate from the direction of Yogyakarta, which is 8 km from Borobudur Temple. Palbapang is a T-junction and is the primary access to the Borobudur area from Yogyakarta.
• Arrangement area: 5.302 M2
• Facility components: Artwork (lion) as a gate icon, multipurpose hall (information hall - education and interpretation), restroom, landscaping/garden, security room, and equipment
Kembanglimus Marker Gate:

- Elephants in the reliefs of Borobudur Temple are animals that symbolize bodhisattvas who always try to do good. Elephants also become human friends and are used as a means of transportation for humans.
- The Kembanglimus Gate with the Elephant icon is the Regional Marking Gate from the direction of Purworejo, which is 9.5 km from Borobudur Temple.
- Area of arrangement: 1.181.75 M²,
- Facility Components: Area gate icon, Business Kiosk, Mushola, Toilet, Management Room, Pendopo, ME Room.

Development of Kembanglimus Community Center:

- The Community Center in Kembanglimus Village was developed to support community empowerment programs including local products (handicrafts and culinary), as well as the development of local arts communities that help revive the rural economy and provide economic benefits to the local community, in synergy with the Balkondes Kembanglimus next door,
- Area of arrangement: 1.5 HA,
- Facility components: icons - educational elements - interpretation, souvenir stalls, culinary stalls, prayer rooms, toilets, open stages, multifunctional pendopo/halls, parking areas, utility and management rooms, and TPS3R.
B. Structuring the Cultural Axis Pathways: Mendut-Pawon-Borobudur

1. Location Considerations
   • The location of the Cultural Axis Route is outside zone 1 and 2 of Borobudur Temple. Located in two villages, namely Bojong Village (Mendut) and Wanurejo Village (Brojonalan),
   • The Mendut-Pawon-Borobudur (MPB) cultural axis location utilizes the existing Bojong neighborhood road, then connects with the Progo riverbank line, crosses the Progo River, then leads to the Brojonalan neighborhood road.

2. Justification of Mendut-Pawon-Borobudur Cultural Axis Arrangement
   a. Philosophical Aspects
      • Development of the Cultural Axis Pathway aims to strengthen the concept of wholeness that supports the linkage between Mendut, Pawon, and Borobudur Temples to strengthen the OUV,
      • Development of a Cultural Axis Path to help control the flow of visits (visitor flow) within the area to reduce the volume of visits at Borobudur Temple and support the carrying capacity of visits to Borobudur Temple.
      • Development of a Cultural Axis Pathway to encourage the development of rural areas and community empowerment around Borobudur Temple for the surrounding community's economic welfare.
   b. Functional Aspect
      • The Cultural Axis (MPB) is a pedestrian path that connects Mendut-Pawon - Borobudur and functions as: (1) a rural-community empowerment-based cultural tourism route, and (2) an alternative route for religious tourism travel (pilgrimage) to support visitor development.
Management in order to control visitor flow to the Borobudur area, as well as reduce the burden of centralized visits to Borobudur Temple,

- The Cultural Axis Path (MPB) is an educational route that will present information and interpretations of World Heritage philosophical and inspirational values to strengthen awareness of OUV values,
- The Cultural Axis (MPB) Pedestrian Path and Pedestrian Bridge of Kali Progo opens isolation areas. It opens access to interaction between villages (Bojong Village and Wanurejo Village) to support rural areas' economic empowerment.

3. Concept of Physical Design of Cultural Axis Pathways

- The CDM Cultural Axis Path utilizes the existing road in the Bojong neighborhood and the existing path along the banks of the Progo River,
- Specifically for pedestrian paths on the Progo River banks, made in the form of a boardwalk for the safety and security of pedestrians from the flood hazards of the Progo River. However, physically and visually, this pedestrian path is not visible because it is covered by the density of trees on the Progo River banks. The selection and utilization of the path on the Progo Riverbanks is due to the absence of a permanent environmental road connecting Bojong Village with Wanurejo Village and minimizing residential settlements' relocation.
- Pedestrian paths using materials and characters that blend with the surrounding environment (andesite stone and wooden character boards).

4. Benefit Value — Positive Contribution of Mendut-Pawon-Borobudur Cultural Axis Pathway Arrangement

a. The development of the MPB Cultural Axis Path as an integral part of visitor management in the Borobudur area (contained in ITMP-BYP and BVMP) will make a positive contribution to support the protection of the Borobudur Temple Compounds and its surroundings, among others:
   - Diverting visits outside of Borobudur Temple,
   - Reducing centralized visits to Borobudur Temple,
   - Maintaining the carrying capacity of the Borobudur Temple,
   - Create spaces for visitors to interact with communities along cultural axis pathways that foster community empowerment and promote local resource potential.

b. Development of the CDM Cultural Axis Pathway will strengthen the OUV of the Borobudur Temple Compounds, aspects of wholeness, and appreciation of cultural heritage sites and cultural landscapes, providing space, education, and elements interpretation along the cultural axis path.
<table>
<thead>
<tr>
<th>No</th>
<th>PRINSIP PENGEMBANGAN dan PENATAAN KAWASAN BOROBUDUR</th>
<th>PROGRAM PENATAAN KSPN BOROBUDUR (KEMENPUPR)</th>
<th>DESKRIPSI KESESUAIAN DAN PEMENUHAN KRITEIRA PELESTARIAN KAWASAN BOROBUDUR</th>
</tr>
</thead>
</table>
| 1. | STRENGTHENING OUTSTANDING UNIVERSAL VALUE (OUV) & INTEGRITY  
• Melestarikan dan memperkuat OUTSTANDING UNIVERSAL VALUE (OUV) Candi Borobudur – Integrity and Authenticity | ✔ | Penataan Jalur Aksis Budaya menciptakan ruang dan akses yang memperkuat keterpaduan Candi Borobudur – Mendut – Pawon dalam satu kesatuan sehingga akan memperkuat nilai-nilai OUV yang mendukung pelestarian dan eksistensi Bangunan Candi dan lansekapnya |
• MASTER PLAN JICA 1979 sebagai acuan pengembangan dan penataan | ✔ | Pengembangan Jalur Aksis Budaya berada di luar zonasi 1 dan 2 (master Plan JICA) |
| 3. | ENHANCING EDUCATION THROUGH INTERPRETATION  
• Menekankan aspek EDUKASI DAN INTERPRETASI nilai-nilai OUV Candi Borobudur | ✔ | Pengembangan Jalur Aksis Budaya akan dilengkapi dengan ruang dan elemen informasi dan interpretasi yang menpresentasikan gambaran ekofak dan artefak kawasan Borobudur sehingga memperkuat apresiasi terhadap nilai-nilai OUV Candi Borobudur |
| 4. | ENSURE STRICT IMPLEMENTATION OF CARRYING CAPACITY.  
• Pengendalian CARRYING CAPACITY terkait pelestarian (pelindungan, pengembangan, pemanfaatan) Candi Borobudur | ✔ | Pengembangan Jalur Aksis Budaya akan menjadi titik kunjungan baru di luar komplek Candi Borobudur, serta menjadi ruang transisi kunjungan ke kawasan Borobudur sehingga akan dapat mejadi fungsi kontrol kunjungan (visitor management) dan mendukung pencapaian carrying cappacity. |
<table>
<thead>
<tr>
<th>No</th>
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<th>PENATAAN JALUR AKSIS BUDAYA</th>
<th>DESKRIPSI KESESUAIAN DAN PEMENUHAN KRITERIA PELESTARIAN KAWASAN BOROBUDUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>INTEGRATED PROGRAM WITH ITMP, BYP &amp; BVMP.</td>
<td>√</td>
<td>√</td>
<td>Pengembangan Jalur Aksis Budaya menjadi bagian perencanaan ITMP BYP dan BVMP untuk memperkuat pengembangan visitor management di Kawasan Borobudur (pada konteks mezo, di luar Candi Borobudur)</td>
</tr>
<tr>
<td>6.</td>
<td>ENCOURAGING VISITOR DISPERsal INTO PERIPHERAL AREAS</td>
<td>√</td>
<td>√</td>
<td>Pengembangan Jalur Aksis Budaya berada di luar zona 1 dan 2 zonasi Pelestarian JICA yang mendukung pengembangan simpul-simpul kegiatan yang lebih menyebar di luar komplek Candi Borobudur.</td>
</tr>
<tr>
<td>7.</td>
<td>ENHANCING COMMUNITY DEVELOPMENT &amp; EMPOWERMENT.</td>
<td>√</td>
<td>√</td>
<td>Penataan Jalur Aksis Budaya menciptakan ruang interaksi pengunjung secara langsung dengan lingkungan permukiman dan masyarakat pedesaan sehingga akan memperkuat upaya pemberdayaan masyarakat dan peningkatan kesejahteraan masyarakat setempat.</td>
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5. Construction of the Elo River Pedestrian Bridge
6. Improving the Quality of Bojong Village Environmental Roads
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<thead>
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<th>JABARAN KEGIATAN</th>
<th>RANCANGAN DESAIN</th>
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<tbody>
<tr>
<td>B.</td>
<td>PENATAAN JALUR AKSIS BUDAYA BENDUT - PAMON - BOROBUDUR</td>
<td>PEMBANGUNAN FASILITAS: 3. Peningkatan Kualitas Jalan Lingkungan Desa Bering</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
</tbody>
</table>

7. Development of a Pedestrian Path on the Bank of the Progo River
8. Construction of a Pedestrian Bridge on the Progo River
9. Quality Improvement of Sendang Lanang and Sendang Wadon, Wanurejo Village
10. Improving the Quality of Environmental Roads in Wanurejo Village
11. Improving the Quality of Jalan Balaputeradewa
C. Arrangement of the Concourse Area and Recipient Plaza

1. Justification of Borobudur Temple Concourse Area Arrangement
   a. Philosophical Aspects
      • Restoring the concourse path pattern according to the 1979 JICA Master Plan, which is the guideline of UNESCO,
      • Improve the quality of the concourse area as a transitional visit space within the temple environment (zone 2) to strengthen and increase the value of the OUV of the Borobudur Temple Compounds,
      • Strengthening efforts to control carrying capacity within the Borobudur Temple environment,
      • Improve the concourse area’s quality as part of the Borobudur Visitor Management Plan (BVMP) to control carrying capacity.

   b. Functional Aspects
      • The Concourse area is a transitional space that can be a stopping point for visitors going to Borobudur Temple to function effectively to help control visitor flow so that they do not go directly to Borobudur Temple, and can reduce the burden of a centralized visit to Borobudur Temple.
      • The Concourse area has an information and education function for visitors to strengthen awareness of OUV values.
2. The Concept of Borobudur Temple Concourse Area Arrangement Design
   • The shape of the concourse path is returned according to the JICA Master Plan with a continuous line pattern,
   • The structuring program is aimed at improving and improving the condition and material of the road and plaza concourses with local materials/andesite stones while maintaining the dimensions/width of the concourse, as well as adding and restoring green areas,
   • Repair of drainage networks, electrical / mechanical-electrical-plumbing networks, and clean water and sanitation networks that support the protection function of Borobudur Temple.
   • Placement of information-interpretation content in the concourse area (entrance of the ticketing pavilion, inner plazas, and pedestrian paths of the concourse) for the education of OUV values.

3. Value of Benefits — Positive Contribution of Concourse Area Arrangement
   The arrangement of the Concourse Area as an integrated part in the development of visitor management in the Borobudur Area (ITMP-BYP and BVMP) will make a positive contribution to the conservation efforts of the Area for:
   • Restoring conditions in accordance with the 1979 JICA Master Plan,
   • Manage and control the flow and volume of visitors within the Borobudur Temple environment (core zone and buffer zone),
   • Reducing and controlling centralized visits to Borobudur Temple,
   • Maintain carrying capacity in the Borobudur Temple environment (core zone and buffer zone).
   The arrangement of the Concourse Area will further strengthen the OUV value of the Borobudur Temple Compounds:
   • Restoring the green belt in zone 2 as a buffer zone,
   • Expanding the space for education and interpretation of cultural heritage values to a wider area.
### INTEGRATION OF THE BOROBUDUR CONCOURSE AREA IMPROVEMENT TOWARD THE DEVELOPMENT PRINCIPLES OF BOROBUDUR AREA

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<thead>
<tr>
<th>No</th>
<th>DEVELOPMENT PRINCIPLES</th>
<th>DEVELOPMENT PLAN OF THE BOROBUDUR AREA CONDUCTED BY MINISTRY OF PUBLIC WORKS AND HOUSING (KEMENPUPR)</th>
<th>IMPROVEMENT OF BOROBUDUR CONCOURSE AREA</th>
<th>PROJECT DESCRIPTION THAT CORRESPONDS WITH THE DEVELOPMENT PRINCIPLES</th>
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</thead>
<tbody>
<tr>
<td>4.</td>
<td>ENSURE STRICT IMPLEMENTATION OF CARRYING CAPACITY.</td>
<td></td>
<td>X</td>
<td>Improvement of Concourse area with education and interpretation element and landscape development will help control visitor flow and volume, so that visitors will not directly ascend the Borobudur temple, as they will stay for a certain time. Hence, it helps maintain the visitor carrying capacity within the Borobudur temple area (zone 1 and zone 2)</td>
</tr>
<tr>
<td>5.</td>
<td>INTEGRATED PROGRAM WITH ITMP BYP &amp; BVMP.</td>
<td></td>
<td>X</td>
<td>Improvement of concourse area has been integrated as part of development plan of ITMP BYP and BVMP in order to manage visitor flow as part of Borobudur Visitor Management plan in the zone 1 and zone 2</td>
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### INTEGRATION OF THE BOROBUDUR CONCOURSE AREA IMPROVEMENT TOWARD THE DEVELOPMENT PRINCIPLES OF BOROBUDUR AREA

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<th>PROJECT DESCRIPTION THAT CORRESPONDS WITH THE DEVELOPMENT PRINCIPLES</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>PROTECTING AND STRENGTHENING OUTSTANDING UNIVERSAL VALUE (OUV) - INTEGRITY and AUTHENTICITY</td>
<td></td>
<td>X</td>
<td>Improvement of concourse area will repair the landscape, utility infrastructure (i.e.: sanitation and drainage system, water supply and electricity) inside the concourse area, hence, maintain and strengthen the OUV of Borobudur temple and the existence of the landscape within the area (zone 1 and 2)</td>
</tr>
<tr>
<td>2.</td>
<td>IMPLEMENTING GUIDELINES BASED ON THE JICA MASTER PLAN 1979.</td>
<td></td>
<td>X</td>
<td>Improvement of concourse area will restore the concourse path as planned in the <strong>JICA 1979 Master Plan</strong> (straight line)</td>
</tr>
<tr>
<td>3.</td>
<td>ENHANCING EDUCATION THROUGH INTERPRETATION</td>
<td></td>
<td>X</td>
<td>Improvement of concourse area will be complemented with the education and interpretation element, hence, it will enhance the role of the concourse area as a transition space and education point which give knowledge and awareness for the visitor regarding the OUV of Borobudur temple before they enter into the Borobudur temple area</td>
</tr>
</tbody>
</table>
4. Arrangement of the Recipient's Court/Plaza

**IMPROVEMENT PLAN OF CONCOURSE AREA**

Entrance area – ticketing hall (visitor center)

<table>
<thead>
<tr>
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<th>RINCIAN DESAIN</th>
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<tr>
<td>C.</td>
<td>PENATAAN AREA CONCOURSE BOROBUDUR</td>
<td>PEMBANGUNAN FASILITAS:</td>
<td></td>
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<tr>
<td></td>
<td>Penataan Pelataran Pameran – Tiket Masuk</td>
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</tr>
</tbody>
</table>
Panel Informasi-interpretasi
Di Area Plaza Penerima - Ticketing, Candi Borobudur

Panel 01 : BOROBUDUR IN THE WORLD MAP

BOROBUDUR IN THE WORLD MAP
Borobudur Temple is a Buddhist temple and wellknown as the biggest Buddhist temple in the world. Borobudur temple is located in the Kedu Basin in Central Java, at Java Island. The monument, which is 35.4 metres high and has a base of 121.70 x 121.40 metres, is subdivided by ten terraces and crowned with a large stupa. It is decorated with 2,672 relief panels, 504 Dhyan Buddha statues, and 72 stupas.
Panel 02 : BOROBUDUR WITHIN THE JAVA CULTURAL LANDSCAPE

BOROBUDUR WITHIN THE JAVA CULTURAL LANDSCAPE

Borobudur is a magnificent Buddhist temple that built in the 9th century CE by the ruling Buddhist Sailendra Dynasty. The temple is situated in the Kedu Basin in the Regency of Magelang in Central Java, and is surrounded by a range of volcanoes and hills. Such a landscape represents the depiction of the macro-cosmos in Hindu cosmology in which the Merapi mountain is the centre of the world and which was encircled by layers of land and water. In this the Borobudur temple is itself the centre of the world.

Panel 03 : THE DEMISE AND REDISCOVERY OF BOROBUDUR

THE DEMISE AND REDISCOVERY OF BOROBUDUR

Some scholars think Borobudur was abandoned after the massive eruption of the Merapi volcano in 1306 AD; other believe this temple was vacated when Matalara Kingdom was moved to eastern Java. After the 15th century, the Borobudur temple was truly abandoned because most of local population surroundings had converted to Islam.

In 1914, inspired by stories by the native people around Borobudur, the British Governor General Sir Thomas Raffles, arranged for experts and local people to clear the thick shrubs in order to reveal more of the monument.

The first restoration (1907-1913) was undertaken by Theodore van Erp, focused on the upper terraces and structural rearrangement of Borobudur temple. In the early 1920s, the 24 replicas of the Borobudur reliefs here on display were made by the Dutch brothers Frans and Constant Twuollohunen with a team of Indonesian experts and sent as a gift to the Vatican Museums.
Panel 04 : BOROBUDUR OUTSTANDING UNIVERSAL VALUE (OUV)

BOROBUDUR OUTSTANDING UNIVERSAL VALUE (OUV)

Criterion (i): Borobudur Temple Compounds with its stepped, unroofed pyramid consisting of ten superimposing terraces, crowned by a large bell-shaped dome is a harmonious marriage of stupas, temple and mountain that is a masterpiece of Buddhist architecture and monumental arts.

Criterion (ii): Borobudur Temple Compounds is an outstanding example of Indonesia's art and architecture from between the early 8th and late 9th centuries that exerted considerable influence on an architectural revival between the mid-13th and early 16th centuries.

Criterion (vi): Laid out in the form of a lotus, the sacred flower of Buddha, Borobudur Temple Compounds is an exceptional reflection of a blending of the very central idea of indigenous ancestor worship and the Buddhist concept of attaining Nirvana. The ten mounting terraces of the entire structure correspond to the successive stages that the Buddha must achieve before attaining to Buddhahood.

Panel 05 : IMAGINARY AXIS of Mendut – Pawon – Borobudur

IMAGINARY AXIS : MENDUT – PAWON - BOROBUDUR

Borobudur Temple, Pawon Temple and Mendut Temple were built in the same period, and the spatial layout is located on the straight line or imaginary axis. The three of temple represent the phase in reaching towards Nirvana.

Borobudur Temple is the Main Temple, represents a model of the universe and was built as a sacred place to glorify the Buddha and as a place of pilgrimage to guide people move from the world of lust to achieve enlightenment and wisdom according to Buddhism.

Mendut Temple, whose depiction of Buddha is represented by a formidable monolith accompanied by two Bodhisattvas, and Pawon Temple, a smaller temple whose inner space does not reveal which deity might have been the object of worship.

In the Buddhist rituals the three temples are related, the ceremony starting from Mendut Temple continuing to Pawon Temple and finish at the Borobudur Temple.
5. Arrangement of the inner court (Courtyard)

INSPIRATIONAL BOROBUDUR

When the Borobudur temple was built, it was indeed for the sake of the followers of the Buddhist religion. However, the teaching imbedded in this temple is not only for them for the underlying message is a universal one. The Borobudur message is clear: if someone seeks liberation from suffering (samsara), the only way to attain is to detach oneself from worldly desires and material things. Such a spiritual message can be found in all religions. Hence, Borobudur is always an thought-provoking place to learn about our common humanity and the message imbued in this monument is still pertinent in the modern world and for the future.

It is one of the reasons that millions of visitors from all faiths come from all over Indonesia and from around the world to come to marvel at the Borobudur and its timeless message for humanity.

The harmonious integration between local wisdom and the external influence (the teaching of Buddha) manifested in the Borobudur temple provides an inspirational message to all people to treat each other well and to mutually share their knowledge and culture. Until today, inter-religions and inter-cultural tolerance and harmony remains an important element of the daily life of the local population.

Borobudur teaches us not only about humanity and human relationships but also inspires us in many aspects of our life: art, literature, knowledge and technology, and even creative economy. Borobudur temple was and still is an everlasting source of inspiration which makes it incumbent upon our and future generations to preserve and cherish it. (256 words)

PENATAAN AREA CONCOURSE (PELATARAN DALAM)

Penataan Pelataran dalam, mengadopsi konsep dalam Master Plan JICA 1979 sebagai area transisi dan ruang edukasi bagi pengunjung sebelum naik menuju jalur concourse dan candi Borobudur
6. Main Line Concourse Arrangement
Improvement concept for education and interpretation at the visitor center
Concept of interpretation panel (9 panels) at the main concourse path

INTERPRETATION PANELS AT THE MAIN CONCOURSE PATH WILL DESCRIBE INFORMATION ABOUT THE DISCOVERY AND THE CONSERVATION EFFORT OF BOROBUDUR TEMPLE AREA, AS FOLLOWS:

<table>
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<tr>
<th>No.</th>
<th>TITLE OF INTERPRETATION PANEL</th>
<th>PANEL</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>THE DISCOVERY OF BOROBUDUR TEMPLE</td>
<td>01</td>
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<tr>
<td>2.</td>
<td>THE FIRST RESTORATION OF BOROBUDUR TEMPLE</td>
<td>02</td>
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<tr>
<td>3.</td>
<td>PHYSICAL SETTING AND BUILDING STRUCTURE OF BOROBUDUR TEMPLE</td>
<td>03</td>
</tr>
<tr>
<td>4.</td>
<td>DISASTER THREATS TOWARD BOROBUDUR TEMPLE</td>
<td>04</td>
</tr>
<tr>
<td>5.</td>
<td>SECOND RESTORATION OF BOROBUDUR TEMPLE</td>
<td>05</td>
</tr>
<tr>
<td>6.</td>
<td>THE RECOGNITION OF BOROBUDUR TEMPLE AS A WORLD HERITAGE SITE (WHS)</td>
<td>06</td>
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<tr>
<td>7.</td>
<td>THE UTILIZATION OF BOROBUDUR TEMPLE AS A HERITAGE TOURISM DESTINATION</td>
<td>07</td>
</tr>
<tr>
<td>8.</td>
<td>BUILDING LEVELS AND PHILOSOPHY OF BOROBUDUR TEMPLE</td>
<td>08</td>
</tr>
<tr>
<td>9.</td>
<td>THE STORY OF EACH LEVEL OF BOROBUDUR TEMPLE (KARMAWIBANGGA – GANDHAYUDA)</td>
<td>09</td>
</tr>
</tbody>
</table>

Concept of interpretation panel (9 panels) at the main concourse path
D. Relocating the Merchant and Parking Area to Kampung Seni Kujon
1. Justification of Moving Merchants and Parking Areas to Kampung Seni Kujon
   a. Philosophical Aspects
      • Meets UNESCO recommendations to move parking areas and merchants,
      • Restoring the green area in zone 2 as a green belt and buffer zone according to the JICA 1979 Master Plan, which is UNESCO's guide so that it fulfills the 4% KDB which supports the strengthening of the OUV value of Borobudur Temple,
      • Fulfill the mandate of Presidential Regulation Number 58 of 2014 for the relocation of merchant and parking areas from Zone 2 by 2019,
      • Strengthening efforts to control carrying capacity within the Borobudur Temple environment as an integrated part of Borobudur Visitor Management.
   b. Functional Aspects
      • The area in Kujon is a supporting facility related to the development and utilization of Borobudur Temple for the context of culture and tourism, parking areas and traders, and its circulation management are part of the transitional space that will help control the movement of visitors flow so as not to go directly to Borobudur Temple and reduce the burden of a centralized visit to Borobudur Temple,
      • The parking area and traders have information functions, visitor education, and creative space for the development of community arts and culture around Borobudur Temple so as to strengthen the OUV values of Borobudur Temple.
### INTEGRASI PROGRAM PENATAAN PEMINDAHAN AREA PARKIR & PEDAGANG
**DGN PRINSIP PELESTARIAN KAWASAN BOROBUDUR**

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</tr>
</thead>
</table>
| 1. | STRENGTHENING OUTSTANDING UNIVERSAL VALUE (OUV) & INTEGRITY  
  ▪ MASTER PLAN JICA 1979 sebagai acuan penataan | ✓ | Penataan area parkir dan pedagang di lokasi baru telah sesuai dengan Master Plan JICA dengan mengembalikan peruntukan zona 2 sebagai zona buffer / penyaring untuk mendukung pelestarian Candi Borobudur. |
| 3. | ENHANCING EDUCATION THROUGH INTERPRETATION  
  ▪ Menekankan aspek EDUKASI DAN INTERPRETASI nilai-nilai OUV Candi Borobudur | ✓ | Penataan Area pedagang dan parkir di lokasi baru (lapangan Kujon) akan dilengkapi fasilitas workshop dan edukasi pengembangan seni budaya/ industri kreatif, sehingga mendukung dan memperkuat aspek edukasi. |

### INTEGRASI PROGRAM PENATAAN PEMINDAHAN AREA PARKIR & PEDAGANG
**DGN PRINSIP PELESTARIAN KAWASAN BOROBUDUR**

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</table>
| 4. | ENSURE STRICT IMPLEMENTATION OF CARRYING CAPACITY.  
  ▪ Pengendalian CARRYING CAPACITY terkait pelestarian Candi Borobudur | ✓ | Penataan Area Parkir dan Pedagang akan mengeluarkan area pedagang dan parkir ekstisting di zona 2, sehingga akan memperluas ruang terbuka hijau dan mengurangi kepadatan pengunjung di lingkungan Candi Borobudur. |
| 5. | INTEGRATED PROGRAM WITH ITMP, BYP & BVMP.  
  ▪ Program penataan TERINTEGRASI DENGAN PERENCANAAN ITMP BYP dan BVMP | ✓ | Penataan Area Parkir dan Pedagang di lokasi baru (lapangan Kujon) telah sesuai dan menjadi bagian perencanaan ITMP BYP dan BVMP untuk memindahkan area pedagang dan parkir dari zona 2 dan pengembangan visitor management pada skala mezo (di luar candi) |
| 6. | ENCOURAGING VISITOR DISPERSAL INTO PERIPHERAL AREAS  
  ▪ Optimalisasi PENGEMBANGAN DI LUAR ZONA 1 DAN 2 untuk mengurangi beban terpusat di komplek Candi Borobudur, dengan tetap mempertahankan unsur lansekap kawasan. | ✓ | Penataan Area Parkir dan Pedagang di lokasi baru (lapangan Kujon) berada di luar zona 1 dan 2, sehingga secara langsung mengurangi beban kunjungan yang terpusat di lingkungan Candi, dan membawa beban ke area lain di luar Candi. |
| 7. | ENHANCING COMMUNITY DEVELOPMENT & EMPOWERMENT.  
  ▪ Program Pengembangan berorientasi pada PEMBERDAYAAN POTENSI LOKAL – PEDESAAN DAN PENINGKATAN KESEJAHTERAAN MASYARAKAT/ WILAYAH SETEMPAT. | ✓ | Penataan Area Parkir dan Pedagang di lokasi baru akan menyediakan ruang usaha dan ruang ekspresi seni yang lebih memadai untuk meningkatkan pemberdayaan masyarakat setempat. |
GAMBAR SITUASI

Rincian fungsi:

1. Pelataran depan (Entrance hall)
2. Kloset cinderamata/kuliner
3. Workshop/multipurpose hall/Galeri Edukasi/Museum
4. Outdoor space – Taman Batu
5. Green – landscape/kebun raya tanaman langka/arboretum
6. Open stage – ruang kreatif
7. Deck – feeder shuttle service
8. Area parkir
9. Pendopo
10. Bike & VW safari station

KAMPUNG SENI BOROBUDUR DI KUJON

SITE PLAN
Level 01 (-4.00)
FASILITAS DAN FUNGSI KEGIATAN – Kampung Seni Borobudur

- Kios cinderamata/kuliner
- Open stage - amphitheater
- Pelatara dalam Arboretum tanaman pada relief candi
- Area parkir
- Shuttle service ke/dari kompleks Candi Borobudur (looping)
- Bike & VW safari station
- Museum/ Galeri edukasi & workshop
- Kebun raya/Arbo retum tanaman pada relief candi
- Kios cinderamata/kuliner
- Kios cinderamata/kuliner
- Kios cinderamata/kuliner
- Pelatara dalam (courtyard) & kebun raya/Arbo retum tanaman pada relief candi
- Area parkir
- Lobby hall
- Latar - Taman Batu Purba
- Area parkir
Kampung Seni Borobudur di Kujon sebagai access point untuk masuk ke komplek candi dengan shuttle service (jalur shuttle di dalam pagar komplek candi).

Drop Off area (shuttle service – non polluted vehicles)

Pengunjung masuk pelataran penerima & ticketing – area informasi

KAMPUNG SENI BOROBUDUR DI KUJON

SITE PLAN
VI. ASSESSMENT AND EVALUATION OF THE IMPACT OF THE PLAN FOR THE BOROBUDUR TEMPLE COMPOUNDS

Based on its status as described above, it can be concluded that according to the ICOMOS guidelines (ICOMOS, 2011 Appendix 3A) that the Borobudur Temple Compounds can be categorized as:

Cultural Heritage with a VERY HIGH rating (as World Heritage Sites).

This status requires that all development activities in the Borobudur Temple Compounds pay attention to and follow the provisions that guarantee the Borobudur Temple Compounds' protection as World Heritage Sites, National Rank Cultural Heritage and National Tourism Strategic Areas. The provisions for preserving the Borobudur Area as World Heritage Sites are related to the Borobudur SOUV and the JICA Master Plan document (1979).

Provisions for protecting the Borobudur Temple Compounds as a National Rank Cultural Heritage Area and National Tourism Strategic Area are related to Law No. 11/2010 concerning Cultural Heritage and Presidential Regulation No. 58/2014 concerning Spatial Planning for Borobudur and Its Surrounding Areas. This Presidential Regulation accommodates several provisions in the JICA Master Plan document (1979), so that it can be said that this Presidential Regulation provides additional information (strengthens) which is not fully explained in the JICA Master Plan document (1979) or vice versa.

In other words, the provisions of SOUV, Republic of Indonesia Law Number 11 of 2010 concerning Cultural Heritage, JICA Master Plan (1979), and Presidential Regulation Number 58 of 2014 concerning Spatial Planning for the Borobudur Area and Its Surroundings, are used as a reference or baseline for making impact assessment indicators whether it has a direct or indirect impact, as well as how the strength of the impact is either negative or positive on the preservation of the Borobudur Temple Compounds.

A. Type of Impact

The impact assessment is based on several references such as related to the type of impact whether it is direct or indirect, temporary or permanent, irreversible or reversible, and limited or widespread.

- **Direct impacts** are impacts that cause a measurable change in the design or material of cultural heritage or their intangible value and can result in permanent changes,
- **Indirect impacts** are impacts that do not directly affect cultural heritage but change the environment, setting, or context in a way that can ultimately affect the resource itself.
- **Momentary impact**
- **Impact beyond**
- **Recoverable**, namely an impact that can be reversed directly or can be returned following the original elements, either soon or at a later stage,
- **Unrecoverable**, namely a change that destroys the essential physical or intangible elements of cultural heritage so that it cannot be returned to its original form,
- **Limited impact**
- **The impact is widespread**

B. Attributes of Borobudur Temple Compounds that Potentially Affected by the Arrangement Plan

1. Attributes of the Borobudur Temple Compounds

As described in the previous chapter, the attributes of the Borobudur Temple Compounds which are the manifestation of Outstanding Universal Values, are as follows:
2. The level of importance in terms of its function as an attribute
   
   In terms of the level of importance of the function as an attribute, the description is as follows:

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION OF ATTRIBUTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three Temple Buildings: Borobudur, Pawon, and Mendut and all the elements.</td>
<td>Includes: shapes, materials, terrace arrangement, reliefs, and stupas</td>
</tr>
<tr>
<td>Borobudur-Pawon-Mendut Imaginary Corridor</td>
<td></td>
</tr>
<tr>
<td>Borobudur Cultural Landscape, consisting of elements of the natural environment and community culture</td>
<td>Includes: rural atmosphere, agriculture, Cultural Heritage and other archaeological potentials, as well as a landscape of view</td>
</tr>
<tr>
<td>Traces of the Ancient Lake</td>
<td>Covers all areas or areas of former ancient lakes</td>
</tr>
<tr>
<td>Elements of Architecture and Art</td>
<td>Includes: spatial arrangement, stone arrangement, temple construction technology, work on the arrangement of distinctive terraces, material selection, arrangement of statues position, water channel system (jaladwara), sculptures, decorative arts, sculpture, and symbolism</td>
</tr>
<tr>
<td>Ability to Integrate Old and New Cultural Elements and Multicultural or Inclusive Traits</td>
<td>Includes: the use of the Borobudur Temple Compounds for religious, research, education, tradition, tourism and other purposes</td>
</tr>
</tbody>
</table>

   C. Types of Potential Impacts
   
   Based on the desk study, observations with field surveys, reading and interpretation of the Borobudur Temple Compounds Arrangement Plan and its intersection with the provisions in the Borobudur OUV, an impact assessment indicator can be prepared which, will be assessed by several types of impacts such as direct or indirect, momentary or permanent impacts, can recoverable or irreversible, and limited or widespread, as shown in the description below:
   
   1. Gate Marking Cultural Area
      a. Palbapang Gate Arrangement
### Kembanglimus Gate Arrangement

<table>
<thead>
<tr>
<th>WORK PHASE</th>
<th>IMPACTED ATTRIBUTES</th>
<th>ROLE OF ATTRIBUTES ON GUIV</th>
<th>TYPES OF IMPACT</th>
<th>IMPACT DURATION</th>
<th>REVERSIBILITY</th>
<th>IMPACT AREAS</th>
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</thead>
<tbody>
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<td>Preparation Phase</td>
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<tr>
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<td>Operational Phase</td>
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<td>Direct</td>
<td>Permanent</td>
<td>Irreversible</td>
<td>Limited</td>
</tr>
</tbody>
</table>

### PENATAAN GERBANG PALBAPANG

| Peraturan Presiden No.58 Tahun 2014 | |
|------------------------------------||
| KDB Maks. (%)                      | 20 | 15% (584 m2) Gerbang 252 m2; Bangunan 332 m2 |
| KLB Maks.                          | 1  | Maksimal 1 (3.859 m2) |
| KDH Min. (%)                       | 80 | 84% (3.275 m2) |

### Ketentuan Tata Bangunan

| GSB Min. (m)                      | 4 - 10 | Bangunan berada pada jarak 27 meter dari as jalan nasional |
| Tinggi Bangunan Maks. (m)          | 7 - 10  | Tinggi gerbang: 7,2 m |
| GSS Min. (m)                      | 0      | - |

**Tampilan Bangunan**

1. Desain berkarakter tradisional dengan material utama bersifat alami dan lokal
   - **Gerbang**
     - Gerbang Palbapang menggunakan bahan aluminium cor yang difinishing dengan karakter alami batu alam menyesuaikan dan memperkuat konteks kawasan Borobudur sebagai *Heritage District*.
     - **Bangunan**
       - Bangunan fasilitas pendukung menggunakan konstruksi beton dengan penutup atap *green roof*.
       - Menggunakan material yang berasal dari produk lokal Magelang.
   - **Lansekap**
     - Penataan lansekap dengan menggunakan vegetasi penutup tanah rumput jepang.

2. Tidak bermassa besar
   - Dimensi gerbang; tinggi: 7,2 m, panjang: 30,4 m, tebal: 1 m.
   - Tinggi bangunan 4 m.

3. Tidak memiliki basement
   - Gerbang dan bangunan tidak memiliki basement.

4. Tidak terlihat dari puncak Candi Borobudur
   - Tinggi gerbang: 7,2 m.

5. Ditutup oleh ketinggian dan kerapatan vegetasi
   - -

6. Tidak terlihat kontras dengan lingkungan sekitarnya
   - -

### KETENTUAN PRASARANA DAN SARANA MINIMAL

1. Saluran drainase
   - Perbaikan dan peningkatan saluran drainase.
2. Jalur pedestrian yang dilengkapi dengan fasilitas penerangan
   - Terdapat fasilitas penerangan bangunan dan kawasan.

### WORK PHASE | IMPACTED ATTRIBUTES | ROLE OF ATTRIBUTES ON GUIV | TYPES OF IMPACT | IMPACT DURATION | REVERSIBILITY | IMPACT AREAS
<table>
<thead>
<tr>
<th></th>
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<td>Direct</td>
<td>Permanent</td>
<td>Irreversible</td>
<td>Limited</td>
</tr>
</tbody>
</table>
c. Development of Kembanglimus Community Center

<table>
<thead>
<tr>
<th>WORK PHASE</th>
<th>IMPACTED ATTRIBUTES</th>
<th>ROLE OF ATTRIBUTES ON OUV</th>
<th>TYPES OF IMPACT</th>
<th>IMPACT DURATION</th>
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<td>Construction Phase</td>
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<td>High</td>
<td>Direct</td>
<td>Permanent</td>
<td>Irreversible</td>
<td>Widen</td>
</tr>
<tr>
<td>Operational Phase</td>
<td></td>
<td>High</td>
<td>Direct</td>
<td>Permanent</td>
<td>Irreversible</td>
<td>Widen</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PEMBANGUNAN COMMUNITY CENTER KEMBANGLIMUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peraturan Presiden No.58 Tahun 2014</td>
</tr>
<tr>
<td>KDB Maks. (%) : 20</td>
</tr>
<tr>
<td>KLB Maks. : 1</td>
</tr>
<tr>
<td>KDH Min. (%) : 80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ketentuan Tata Bangunan</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSB Min. (m) : 4 - 10</td>
</tr>
<tr>
<td>Tinggi Bangunan Maks. (m) : 7 - 10</td>
</tr>
<tr>
<td>GSS Min. (m) : 0</td>
</tr>
</tbody>
</table>

Tampilan Bangunan
1. Desain berkarakter tradisional dengan material utama bersifat alami dan lokal
   - Ikron elemen edukasi interpretasi
     1. Material ikon sebagai elemen edukasi menggunakan bahan aluminium cor yangdifinish dengan karakter alami batu alam menyesuaikan dan memperkuat konteks kawasan Borobudur sebagai Heritage District.

Bangunan
- Menggunakan atap pelana.
- Material bangunan yang digunakan berasal dari produk lokal Kabupaten Magelang.

2. Tidak bermassa besar
3. Tidak memiliki basement
4. Tidak terlihat dari puncak Candil Borobudur
5. Ditutupi oleh ketinggian dan kerapatan vegetasi
   - Penanaman vegetasi di seluruh site.
6. Tidak terlihat kontras dengan lingkungan sekitarnya
   - Plaza yang dilengkapi dengan ikon sebagai elemen edukasi yang memiliki keterkaitan dengan Gerbang Salaman dan Candil Borobudur. Detail ornamen mencirikan bangunan lokal setempat.

KETENTUAN PRASARANA DAN SARANA MINIMAL
1. Saluran drainase
   - Terdapat saluran drainase bangunan dan kawasan. Area parkir: Material perkerasan menggunakan paving yang dapat mengalirkan air hujan.
2. Jalur pedestrian yang dilengkapi dengan fasilitas penerangan
   - Terdapat fasilitas penerangan pada bangunan dan kawasan.
2. Arrangement of the Cultural Axis Path: Mendut-Pawon-Borobudur
   a. Construction of the Elo River Pedestrian Bridge

<table>
<thead>
<tr>
<th>WORK PHASE</th>
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</tr>
</tbody>
</table>

PEMBANGUNAN JEMBATAN KEMALAN KAKI SUNGAI ELO

Peraturan Presiden No.58 Tahun 2014

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>KDB Maks. (%)</td>
<td>20</td>
</tr>
<tr>
<td>KLH Maks.</td>
<td>1</td>
</tr>
<tr>
<td>KDH Min. (%)</td>
<td>80</td>
</tr>
</tbody>
</table>

Ketentuan Tata Bangunan

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>GSB Min. (m)</td>
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</tr>
<tr>
<td>Tinggi Bangunan Maks. (m)</td>
<td>7 - 10</td>
</tr>
<tr>
<td>GSS Min. (m)</td>
<td>0</td>
</tr>
</tbody>
</table>

Tampilan Bangunan

1. Desain berbentuk tradisional dengan material utama bersifat alami dan lokal
   Jembatan Pejalan Kaki Sungai Elo menggunakan konstruksi baja komposit, railing menggunakan material plat besi galvanis dengan ornamen bentuk lotus

2. Tidak bermassa besar
   Lebar jembatan: 3 m, bentang: 40 m

3. Tidak memiliki basement

4. Tidak terlihat dari puncak Candi Borobudur
   -

5. Ditutupi oleh ketinggian dan kerapatan vegetasi
   -

6. Tidak terlihat kontras dengan lingkungan sekitarnya
   Konsep ornamen diambil dari nuansa Candi Borobudur.

KETENTUAN PRASARANA DAN SARANA MINIMAL

1. Saluran drainase
2. Jalur pedestrian yang dilengkapi dengan fasilitas penerangan

b. Bojong Village Environmental Road Quality Improvement

<table>
<thead>
<tr>
<th>WORK PHASE</th>
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</tr>
</tbody>
</table>
### Development of a Pedestrian Path on the Bank of the Progo River

<table>
<thead>
<tr>
<th>WORK PHASE</th>
<th>IMPACTED ATTRIBUTES</th>
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<th>IMPACT AREAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation Phase</td>
<td>ATTRIBUTE 2 Borobudur-Pawon-Mendut Imaginary Corridor</td>
<td>Medium</td>
<td>Indirect</td>
<td>Temporary</td>
<td>Reversible</td>
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</tr>
</tbody>
</table>
### Pembangunan Jalur Pejalan Kaki di Tepian Sungai Progo

<table>
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<tr>
<th>Peraturan Presiden No.58 Tahun 2014</th>
</tr>
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<tbody>
<tr>
<td>KDB Maks. (%)                       : 20</td>
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<td>KLB Maks.                           : 1</td>
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<tr>
<td>KDH Min. (%)                        : 80</td>
</tr>
</tbody>
</table>

### Ketentuan Tata Bangunan

- **GSB Min. (m)**: 4 - 10
- **Tinggi Bangunan Maks. (m)**: 7 - 10
- **GSS Min. (m)**: 0

**Tampian Bangunan**

1. Desain berbentuk tradisional dengan material utama bersifat alami dan lokal
2. Tidak bermassa besar
3. Tidak memiliki basement
4. Tidak terlihat dari puncak Candi Borobudur
5. Ditutup oleh ketinggian dan kerapatan vegetasi
6. Tidak terlihat kontras dengan lingkungan sekitarnya

**Penggunaan material bercirikan lokal.**

### Ketentuan Prasarana dan Sarana Minimal

1. Saluran drainase
2. Jalur pedestrian yang dilengkapi dengan fasilitas penerangan

**Perbaikan saluran drainase.**

1. Sepanjang jalur pejalan kaki terdapat street furniture seperti lampu jalan, tempat duduk dan tempat sampah.
2. Terdapat 2 titik shelter yang dapat digunakan oleh wisatawan untuk beristirahat.

### Work Phase

<table>
<thead>
<tr>
<th>Phase</th>
<th>Impacted Attributes</th>
<th>Role of Attributes on CUV</th>
<th>Types of Impact</th>
<th>Impact Duration</th>
<th>Reversibility</th>
<th>Impact Areas</th>
</tr>
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<tbody>
<tr>
<td>Preparation</td>
<td><strong>ATTRIBUTE 2</strong> Borobudur-Pawon-Mendut Imaginary Corridor</td>
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<td><strong>ATTRIBUTE 3</strong> Borobudur Cultural Landscape (rural atmosphere, agriculture, Cultural Heritage and other archaeological potentials, as well as viewpoints)</td>
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**PEMBANGUNAN JEMBATAN PEJALAN KAKI SUNGAI PROGO**

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**Ketentuan Tata Bangunan**

| GSB Min. (m)  | 4 - 10 | - |
| Tinggi Bangunan Maks. (m) | 7 - 10 | 15 meter |
| GS5 Min. (m)  | 0  | - |

**Tampilan Bangunan**

1. Desain berkarakter tradisional dengan material utama bersifat alami dan lokal
   - Desain menggunakan konstruksi baja.
2. Tidak bermassa besar
   - Lebar jembatan: 3 m; bentang: 120 m.
3. Tidak memiliki basement
   -
4. Tidak terlihat dari puncak Candi Borobudur
   -
5. Ditutupi oleh ketinggian dan kerapatan vegetasi
   - Mempertahankan vegetasi eksisting yang terdapat di sekitar jembatan
6. Tidak terlihat kontras dengan lingkungan sekitarnya
   - Konsep ornamen diambil dari nuansa candi.

**KETENTUAN PRASARANA DAN SARANA MINIMAL**

1. Saluran drainase
   -
2. Jalur pedestrian yang dilengkapi dengan fasilitas penerangan
   - Dilengkapi dengan lampu jalan.

---

**e. Quality Improvement of Sendang Lanang and Sendang Wadon, Wanurejo Village**

<table>
<thead>
<tr>
<th>WORK PHASE</th>
<th>IMPACTED ATTRIBUTES</th>
<th>ROLE OF ATTRIBUTES ON OUV</th>
<th>TYPES OF IMPACT</th>
<th>IMPACT DURATION</th>
<th>REVERSIBILITY</th>
<th>IMPACT AREAS</th>
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<tr>
<td>Preparation Phase</td>
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<tr>
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<td>Corridor</td>
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<tr>
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</tbody>
</table>
f. Improvement of the Environmental Road Quality in Wanurejo Village

<table>
<thead>
<tr>
<th>WORK PHASE</th>
<th>IMPACTED ATTRIBUTES</th>
<th>ROLE OF ATTRIBUTES ON OUV</th>
<th>TYPES OF IMPACT</th>
<th>IMPACT DURATION</th>
<th>REVERSIBILITY</th>
<th>IMPACT AREAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation Phase</td>
<td>ATTRIBUTE 1</td>
<td>Medium</td>
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<td>Reversible</td>
<td>Limited</td>
</tr>
<tr>
<td>Construction Phase</td>
<td>ATTRIBUTE 2 Borobudur-Pawon-Mendut Imaginary Corridor</td>
<td>Medium</td>
<td>Direct</td>
<td>Temporary</td>
<td>Reversible</td>
<td>Limited</td>
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<tr>
<td>Operational Phase</td>
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<td>Medium</td>
<td>Direct</td>
<td>Permanent</td>
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</table>
g. Improving the Quality of Jalan Balaputradewa

<table>
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<th>ROLE OF ATTRIBUTES ON GUIV</th>
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<th>IMPACT DURATION</th>
<th>REVERSIBILITY</th>
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<tr>
<td>Preparation Phase</td>
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</tr>
<tr>
<td></td>
<td>ATTRIBUTE 3 Borobudur Cultural Landscape (rural atmosphere, agriculture, Cultural Heritage and other archaeological potentials, as well as viewpoints)</td>
<td>High</td>
<td>Indirect</td>
<td>Temporary</td>
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<td>Limited</td>
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</tbody>
</table>
3. **Arrangement of the Concourse Area and Borobudur Recipient Plaza**

   a. **Arrangement of the Recipient’s Court / Plaza**

<table>
<thead>
<tr>
<th>WORK PHASE</th>
<th>IMPACTED ATTRIBUTES</th>
<th>ROLE OF ATTRIBUTES ON OUV</th>
<th>TYPES OF IMPACT</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Preparation Phase</td>
<td><strong>ATTRIBUTE 3</strong> Borobudur Cultural Landscape (rural atmosphere, agriculture, Cultural Heritage and other archaeological potentials, as well as viewpoints)</td>
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<tr>
<td>Construction Phase</td>
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<tr>
<td>Operational Phase</td>
<td></td>
<td>High</td>
<td>Direct</td>
<td>Permanent</td>
<td>Irreversible</td>
<td>Limited</td>
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</table>
### b. Arrangement of the inner court (Courtyard)

<table>
<thead>
<tr>
<th>TAHAP PEKERJAAN</th>
<th>ATRIBUT TEREKAMPAK</th>
<th>PERAN ATRIBUT TEREHADAP OUV</th>
<th>JENIS DAMPAK</th>
<th>DURASI DAMPAK</th>
<th>REVERSIBILITAS</th>
<th>KELUASAN DAMPAK</th>
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</thead>
<tbody>
<tr>
<td>Tahap Persiapan</td>
<td>ATRIBUT 2 Koridor Imajiner Borobudur-Pawon-Mendut</td>
<td>Sedang</td>
<td>Tidak Langsung</td>
<td>Sesaat</td>
<td>Dapat Dikembalikan</td>
<td>Terbatas</td>
</tr>
<tr>
<td>Tahap Konstruksi</td>
<td>ATRIBUT 2 Koridor Imajiner Borobudur-Pawon-Mendut</td>
<td>Sedang</td>
<td>Langsung</td>
<td>Sesaat</td>
<td>Dapat Dikembalikan</td>
<td>Terbatas</td>
</tr>
<tr>
<td>Tahap Konstruksi</td>
<td>ATRIBUT 3 Lanskap Budaya Borobudur (suasana perdesaan, pertanian, Cagar Budaya dan potensi arkeologi lain, serta bentang pandang)</td>
<td>Tinggi</td>
<td>Langsung</td>
<td>Sesaat</td>
<td>Dapat Dikembalikan</td>
<td>Terbatas</td>
</tr>
<tr>
<td>Tahap Operasional</td>
<td>ATRIBUT 2 Koridor Imajiner Borobudur-Pawon-Mendut</td>
<td>Sedang</td>
<td>Langsung</td>
<td>Permanen</td>
<td>Dapat Dikembalikan</td>
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<td>Langsung</td>
<td>Permanen</td>
<td>Dapat Dikembalikan</td>
<td>Terbatas</td>
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## Main Concourse Line Arrangement

<table>
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<tr>
<th>WORK PHASE</th>
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<tr>
<td>Preparation Phase</td>
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<tr>
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<td><strong>ATTRIBUTES 2</strong> Borobudur Cultural Landscape (rural atmosphere, agriculture, Cultural Heritage and other archaeological potentials, as well as viewpoints)</td>
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<td>Reversible</td>
<td>Limited</td>
</tr>
</tbody>
</table>
Penataan Area Concourse Borobudur

Peraturan Presiden No.58 Tahun 2014

| KDB Maks. (%) | 4 | 5% (2.149 m²) |
| KLB Maks. | 1 | Maksimal 1 (39.242 m²) |
| KDH Min. (%) | 96 | 94% (36.983 m²) |

Ketentuan Tata Bangunan

| GSB Min. (m) | 10 | - |
| Tinggi Bangunan Maks. (m) | 10 | Tinggi bangunan baru 4 meter, bangunan eksisting 10 meter |
| GSS Min. (m) | 0 | - |

Tampilan Bangunan

1. Desain berkaracter tradisional dengan material utama bersifat alami dan lokal

Plaza Penerima
- Penataan area pelataran penerima – tiket masuk untuk mengatur alur kunjungan wisatawan selain itu juga meningkatkan kualitas area concourse sebagai elemen dan fungsi edukasi nilai-nilai sejarah, budaya dan inspirasi Borobudur.
- Penataan meliputi penataan plaza, koridor penerima yang dilengkapi dengan papan interpretasi dan kolam teratai yang berada tepat di depan pendopo ticketing.

Plaza Dalam
- Penataan Plaza Dalam dengan mempertahankan bangunan pendopo.
- Perkerasan Plaza Dalam menggunakan material andesit bakar.

Concourse
- Penataan jalur concourse dengan mempertahankan median rumput ditengah jalur concourse.
- Penataan jalur conourse dengan tetap mempertahankan lebar jalur conourse eksisting.
- Material perkerasan jalur conourse adalah andesit bakar.

2. Tidak bermassa besar
3. Tidak memiliki basement

Bermassa kecil
Tidak memakai basement.

4. Tidak terlihat dari puncak Candi Borobudur
5. Ditutupi oleh ketinggian dan kerapatan vegetasi

Tidak terlihat dari puncak candi.
Mempertahankan pohon eksisting dan penambahan vegetasi baru diambil dari yang terdapat di dalam relief.

6. Tidak terlihat kontras dengan lingkungan sekitarnya

KETENTUAN PRASARANA DAN SARANA MINIMAL

1. Saluran drainase
Tidak ada perubahan.

2. Jalur pedestrian yang dilengkapi dengan fasilitas penerangan
Pencahayaan tidak langsung – tanpa lampu jalan, drinking water, tempat duduk, tempat sampah, jalur untuk difabel.
4. Relocation of the Merchant and Parking Area to Kampung Seni Kujon

<table>
<thead>
<tr>
<th>WORK PHASE</th>
<th>IMPACTED ATTRIBUTES</th>
<th>ROLE OF ATTRIBUTES ON GUL</th>
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<tr>
<td>Operational Phase</td>
<td><strong>ATTRIBUTE 3</strong> Three Temple Buildings: Borobudur, Pawon, and Mendut and all of their elements.</td>
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<td><strong>ATTRIBUTE 5</strong> Three Temple Buildings: Borobudur, Pawon, and Mendut and all of their elements.</td>
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<td><strong>ATTRIBUTE 6</strong> Borobudur Cultural Landscape (rural atmosphere, agriculture, Cultural Heritage and other archaeological potentials, as well as viewpoints)</td>
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<td>Widlen</td>
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# PEMINDAHAN AREA PEDAGANG DAN PARKIR DI ZONA 2 KE KAMPUNG SENI BOROBUDUR DI KUJON (ZONA 3)

<table>
<thead>
<tr>
<th>Peraturan Presiden No.58 Tahun 2014</th>
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<tbody>
<tr>
<td>KDB Maks. (%)</td>
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<tr>
<td>KLB Maks.</td>
<td>1</td>
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<tr>
<td>KDH Min. (%)</td>
<td>80</td>
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</table>

<table>
<thead>
<tr>
<th>Ketentuan Tata Bangunan</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GSB Min. (m)</td>
<td>4 - 10</td>
</tr>
<tr>
<td>Tinggi Bangunan Maks. (m)</td>
<td>7 - 10</td>
</tr>
<tr>
<td>GSS Min. (m)</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tampilan Bangunan</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3. Memperbanyak bukaan yang berfungsi sebagai penghawaan dan pencahayaan alami.</td>
</tr>
<tr>
<td></td>
<td>4. Konsep penataan kios dan los dengan sistem klaster.</td>
</tr>
<tr>
<td>2. Tidak bermassa besar</td>
<td>Tidak memiliki massa besar.</td>
</tr>
<tr>
<td>3. Tidak memiliki basement</td>
<td>Tidak memiliki basement.</td>
</tr>
<tr>
<td>4. Tidak terlihat dari puncak Candi Borobudur</td>
<td>Tidak terlihat dari puncak candi.</td>
</tr>
<tr>
<td>5. Ditutupi oleh ketinggian dan kerapatan vegetasi</td>
<td>Penanaman vegetasi-vegetasi seperti yang terdapat di dalam relief Candi Borobudur.</td>
</tr>
<tr>
<td>6. Tidak terlihat kontras dengan lingkungan sekitarnya</td>
<td>Bentukan bangunan kampung, penggunaan atap tradisional.</td>
</tr>
</tbody>
</table>

## KETENTUAN PRASARANA DAN SARANA MINIMAL

1. Saluran drainase | Pembangunan saluran drainase bangunan dan kawasan. |
2. Jalur pedestrian yang dilengkapi dengan fasilitas penerangan | Dilengkapi dengan fasilitas penerangan di dalam bangunan dan kawasan. |
A. GATE OF CULTURAL AREA MARKING

In general, the concept and program of building a gate to the Borobudur Temple Compounds (especially the Palpabang Gate and the Kembanglimus Gate) using the concept of the Borobudur relief interpretation are acceptable. Likewise, the construction of the Kembanglimus Community Center is acceptable. However, there are several things that need to be considered in the concept and program for the construction of the Cultural Zone Marking Gate as follows:

<table>
<thead>
<tr>
<th>CONCLUSION</th>
<th>MITIGATION RECOMMENDATIONS</th>
<th>GUIDELINES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Palpabang Gate Arrangement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The Palpabang Gate arrangement concept and program are tied to the Borobudur-Prambanan National Archaeological Park / JICA Master Plan (1979) and bound by the provisions of SP-1 in Presidential Regulation Number 58 of 2014, which must follow the direction of the provisions (attachment-1),</td>
<td>The concept and development program for the Palpabang Gate must involve archaeologists and architectural experts as observers or involve the Borobudur Conservation Center as a technical implementation unit at the Ministry of Education and Culture,</td>
<td>Avoid using the same interpretation panel material with the same material as Borobudur Temple, alternative materials such as aluminum and silica sand,</td>
</tr>
<tr>
<td>• The gate height in the DED document, 7 meters, is acceptable. The gate's size should not be too large so that it is not seen as a monument which can confuse the temples in the Borobudur Temple Compounds, such as Mendut Temple and Pawon Temple. It is relatively small and is located close to the Palpabang Gate (8 km). The JICA Master Plan (1979) clearly warned, &quot;Never Destroy Sanctity!&quot;, In this context, the sanctity of the temple must be emphasized concerning other non-historical buildings,</td>
<td>• The gate building which enriches the interpretation, narrative, and information about the Borobudur Temple Compounds should be added to foster and increase the appreciation and feeling of the temple belonging to the national and world heritage,</td>
<td>• The shape of the artwork and relief panel interpretation should be avoided as much as possible to have the same thing as in the Borobudur Temple.</td>
</tr>
<tr>
<td>• Green areas of suitable height and vegetation density should be maximized,</td>
<td>• Markers must also be added to the gate building as information to minimize confusion because a new building can be interpreted as part of the Borobudur Temple Compounds.</td>
<td>• The dimensions of the Palpapang Gate plan are avoided to have a height more than Pawon and Mendut temples,</td>
</tr>
<tr>
<td>• The concept and development program for the Palpabang Gate must involve archaeologists and architectural experts as observers or involve the Borobudur Conservation Center as a technical implementation unit at the Ministry of Education and Culture,</td>
<td>• As much as possible avoiding monumental and large mass physical formations,</td>
<td>• The dominant green open space is 80%, the building must pay attention to the basic building coefficient of 20% and the building floor coefficient of 1.</td>
</tr>
<tr>
<td>• The gate building which enriches the interpretation, narrative, and information about the Borobudur Temple Compounds should be added to foster and increase the appreciation and feeling of the temple belonging to the national and world heritage,</td>
<td>• As much as possible avoiding monumental and large mass physical formations,</td>
<td>• To maintain an area with a rural character and human scale, the building must be 4-10 M away from the roadside, and the height of the building is 7-10 M.</td>
</tr>
<tr>
<td>• Markers must also be added to the gate building as information to minimize confusion because a new building can be interpreted as part of the Borobudur Temple Compounds.</td>
<td>• As much as possible avoiding monumental and large mass physical formations,</td>
<td>• Basement must be avoided so that no excavation could potentially find artifacts, even though before building construction, a test pit is required at the location where the building will be built,</td>
</tr>
<tr>
<td>• As much as possible avoiding monumental and large mass physical formations,</td>
<td>• As much as possible avoiding monumental and large mass physical formations,</td>
<td>• The use of traditional roofs with dark colors to match the color of the roofs in rural areas of Borobudur,</td>
</tr>
<tr>
<td>• The design needs to pay attention to the village's perspective and character, which is in line with the Borobudur area.</td>
<td>• As much as possible avoiding monumental and large mass physical formations,</td>
<td></td>
</tr>
</tbody>
</table>
a decorative material for lions is an acceptable option,
• Plans to apply modern construction techniques while maintaining their traditional characteristics and avoiding buildings with urban characteristics, and still using local materials following the provisions in Presidential Regulation No. 58/2014, the construction of several facilities in the surrounding environment (besides the gate) must follow the intensity of space utilization and the provisions in Presidential Regulation No. 58 of 2014, mainly following the traditional design features and small building sizes,
• The gate building must enrich the interpretation, narrative, and information of the Borobudur Temple Compounds to foster and increase appreciation and sense of belonging to the nation's and world heritage. Therefore, some clear but concise information about the Borobudur Temple Compounds needs to be added.

### CONCLUSION

**Gate Arrangement and Development of Kembanglimus Community Center**

- The concept and development program of the Kembanglimus Community Center is tied to the Borobudur-Prambanan National Archaeological Park / JICA Master Plan (1979) and is bound by the provisions of SP-2 in Presidential Regulation Number 58 of 2014, which must follow the direction of the provisions (see attachment for details),
- Elements of artwork in the DED document as high as 7.5 M with a building that is not too large are acceptable (maximum height of 10 M following Presidential Regulation No. 58 of

### MITIGATION RECOMMENDATIONS

- The use of roof materials and colors that are harmonious with the environment and do not look contrasting.
- Recognition and provision of facilities to preserve the existence of events, ceremonies, arts, and community traditions,
- Cultural publications through mass media and print media,
- Annual meeting of community leaders with government and private sector.

### GUIDELINES

- The type of vegetation that is planted as much as possible uses the reference of the interpretation of the reliefs of Borobudur Temple so that it can increase the educational value that can strengthen OUV,
- Directing meetings and cultural events to the Kembanglimus area which functions as a community center and has open stage facilities and a pavilion that can be used by the community and local artists to perform performances.

- Avoid using the same interpretation panel material with the same material as Borobudur Temple, alternative materials such as aluminum and silica sand,
- The shape of the artwork and relief panel interpretation should be avoided as much as possible to have the same thing as in the Borobudur Temple.
- The dimensions of the Palbapang Gate plan are avoided to have a height more than Pawon and Mendut temples,
- The dominant green open space is 80%, the
| 2014), |
| The mass size of the Kembanglimus Community Center building is not too large. It is not seen as a monument that will confuse perceptions regarding the temples in the Borobudur Temple Compounds, which are relatively small and are located close to Borobudur Temple (3.1 KM). The JICA Master Plan (1979) reminded, "Never Destroy Sanctity!", In this context, the sanctity of the temple must be emphasized concerning other non-historical buildings, |
| Materials used for community centers and architectural ornaments should not use visually the same stone carvings on the temple. The aim is to avoid perceptions or confusion in the future regarding the uniqueness of the Borobudur Temple Area. This building should not be considered as part of the Borobudur Temple Area, |
| A community center's design has implemented modern construction techniques while maintaining its traditional characteristics, avoiding buildings with urban characteristics, and still using local materials following Presidential Regulation No. 58/2014. The construction of several facilities in the community center (other than the community center itself) must follow the intensity of space utilization per the provisions in Presidential Regulation No. 58 of 2014, especially following a traditional characteristic design and building area. |
| Facilities and elements that enrich interpretation, narrative, and information about the Borobudur Temple Compounds need to be added to foster and increase appreciation and sense of belonging to the nation's and world heritage, |
| Green areas with the right height and density of vegetation should be maximized, |
| Markers and/or interpretations must also be added to the building as information to minimize confusion because a new building can be interpreted as part of the Borobudur Temple Compounds. |
| As much as possible avoiding monumental and large mass physical formations, |
| As much as possible to avoid using the same material as the temple area so as not to confuse perceptions that are considered part of the Borobudur Temple Compounds in the future, |
| The design needs to pay attention to the village's perspective and character, which is in line with the Borobudur area. |
| Avoid the mass of large buildings and monumental structures, |
| The use of roof materials and colors that are harmonious with the environment and do not look contrasting. |
| It is necessary to identify the types of festivals, events, and rituals that have existed so that cultural spaces can be preserved and respected. |
| Facilities to accommodate the community and local cultural arts creativity need to be added to increase intangible values. |
| As much as possible avoiding monumental and large mass physical formations, |
| To maintain an area with a rural character and human scale, the building must be 4-10 M away from the roadside, and the height of the building is 7-10 M. |
| Basement must be avoided so that no excavation could potentially find artifacts, even though before building construction, a test pit is required at the location where the building will be built, |
| The use of traditional roofs with dark colors to match the color of the roofs in rural areas of Borobudur, |
| The type of vegetation that is planted as much as possible uses the reference of the interpretation of the reliefs of Borobudur Temple so that it can increase the educational value that can strengthen OUV, |
| Directing meetings and cultural events to the Kembanglimus area, which functions as a community center and has open stage facilities and a pavilion that can be used by the community and local artists to perform performances. |
B. ARRANGEMENT OF CULTURAL ACCESS ROUTES: MENDUT — PAWON-BOROBUDUR

In general, the Mendut-Pawon-Borobudur Cultural Axis Pathway as described in the vision and mission statement is acceptable. However, there are several things that need to be considered regarding the MAIN IMPACT related to the aspects of integrity and the views of OUV Borobudur as follows:

**CONCLUSION**

<table>
<thead>
<tr>
<th>MITIGATION RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The concept and development program of the Mendut-Pawon-Borobudur Cultural Axis Pathway is tied to the Borobudur-Prambanan National Archaeological Park / JICA Master Plan (1979) and is bound by the provisions of SP-1 in Presidential Regulation Number 58 of 2014, which must follow the direction of the provisions (see attachment for details),</td>
</tr>
<tr>
<td>- The design view shows that the construction of the Bojong Environmental Road and the Progo River Side Path on the Mendut - Pawon - Borobudur imaginary axis does not contrast between dimensions and designs following the SP-1,</td>
</tr>
<tr>
<td>- The Pedestrian Bridge's height crossing the Progo River in the 15 M Detail Engineering Document (DED) at the highest point must comply with the provisions in SP-1 with a maximum height of 10 meters. The bridge can be seen from the top of Borobudur or Pawon, which is only a few hundred meters away.</td>
</tr>
<tr>
<td>- The dimensions and design of the Progo river crossing should not be seen as a monument that will confuse the perception of the temples in the Borobudur Temple area, which are relatively small and are located close to Pawon Temple. The JICA Master Plan (1979) clearly reminded, &quot;Never Destroy Sanctity!&quot;,</td>
</tr>
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<table>
<thead>
<tr>
<th>GUIDELINES</th>
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<tbody>
<tr>
<td>- Material Interpretation panel featuring themes:</td>
</tr>
<tr>
<td>- Illustration of family and community social life</td>
</tr>
<tr>
<td>- Illustration of settlement/building technology</td>
</tr>
<tr>
<td>- Livelihood illustrations (agriculture, fishing, hunting)</td>
</tr>
<tr>
<td>- Illustration of means of transportation</td>
</tr>
<tr>
<td>- Illustration of economic-trade activities</td>
</tr>
<tr>
<td>- Illustration of governance</td>
</tr>
<tr>
<td>- Illustrations of cultural works</td>
</tr>
<tr>
<td>- Illustration of religious-teaching activities</td>
</tr>
<tr>
<td>- The interpretation panel should be avoided as much as possible to have similarities as in the Borobudur Temple,</td>
</tr>
<tr>
<td>- Interpretation panel materials are avoided to use the same material as Borobudur Temple, alternative materials such as aluminum and silica sand,</td>
</tr>
<tr>
<td>- The use of decorative ornamental designs such as lotus, which can strengthen the architectural and artistic value of the Borobudur Temple Compounds,</td>
</tr>
<tr>
<td>- The dominant green open space is 80%, the building must pay attention to the basic building coefficient of 20% and the building floor coefficient of 1.</td>
</tr>
<tr>
<td>- One solution that can be used is camouflage through the use of colors that do not contrast with the environment such as dark greenish brown,</td>
</tr>
<tr>
<td>- To strengthen Mendut-Pawon-Borobudur relations, the building must be 4-10 M from the</td>
</tr>
</tbody>
</table>
In this context, the sanctity of the temple must be emphasized concerning other non-historical buildings,

- The construction of several facilities in the surrounding area (other than bridges) has followed the intensity of space utilization and the provisions in Presidential Regulation No. 58/2014, especially following designs characterized by traditional and small building sizes, as well as following the provisions in JICA guidelines,
- The design for the application of modern construction techniques while maintaining its traditional characteristics and avoiding buildings with urban characteristics, and still using local materials following the provisions of Presidential Regulation Number 58 of 2014,
- Buildings must pay attention to the green area/green zone coefficient. Judging from the design, there is a lot of concrete covering the Cultural Axis Path,
- In line with the concept and development program for Culture Axis Pathways, the JICA Masterplan (1979: 197) has arranged that the stretch of roads in residential areas that pedestrians traverse must become green areas, following the proper vegetation arrangement,
- Development of a Cultural Axis Route, both on Jalan Balaputradewa and other village roads, must follow the provisions of JICA and SP-1 in Presidential Regulation No. 58/2014 by prioritizing traditional characters,
- One of the aims of constructing the Cultural Axis Path is to direct tourists from Pawon Temple to Borobudur Temple. As they walk, roadside and the building height is 7-10 M.
- The type of vegetation planted is the result of the interpretation of the reliefs of Borobudur Temple so that it has educational value that can strengthen OUV,
- The use of ornaments as a cultural identity.

<table>
<thead>
<tr>
<th>Temple Compounds,</th>
<th>Based on the historical background of Mendut-Pawon-Borobudur in a unity of integrity, the development of a cultural axis path needs to be equipped with markers for means of interpretation,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Structuring must maintain and improve the imaginary axis and cultural landscape setting, which is integrity and OUV.</td>
</tr>
<tr>
<td></td>
<td>Avoid designs that can contrast with the surrounding environment and compete with Borobudur,</td>
</tr>
<tr>
<td></td>
<td>Vegetation arrangement that can increase the sense of place before entering the Borobudur Temple area,</td>
</tr>
<tr>
<td></td>
<td>Recognition and preservation of the existence of events, ceremonies, arts, and community traditions,</td>
</tr>
<tr>
<td></td>
<td>It is necessary to identify the types of festivals, events, and rituals that exist so that the cultural spaces created can be present harmoniously.</td>
</tr>
</tbody>
</table>
tourists can see the peak of Borobudur from afar, evoking a sense of place before they even arrive at Borobudur Temple itself. The problem is that the current vegetation on the left (Candi Pawon) blocks Borobudur Temple's view. From the design, the selected vegetation is broad-leaved trees that can block pedestrians' view towards Borobudur Temple. Therefore, the vegetation type on the left needs to be reconsidered. It is recommended to use plants that do not have a wide canopy so as not to block the view while maintaining the height of the vegetation,

- The materials used and architectural ornaments (especially the INFORMATION and INTERPRETATION PANEL) should not use visually the same stone carvings on the temple. The goal is to avoid confusion in the future regarding the uniqueness of the Borobudur Temple Compounds. This building should not be considered as part of the Borobudur Temple Compounds.

C. ARRANGEMENT OF BOROBUDUR RECIPIENT CONCOURSE AND PLAZA AREAS

In general, the concepts and development programs for the Borobudur Concourse Area and the Borobudur Recipient Plaza as described in the vision and mission statement are acceptable. However, there are a number of things that need to be considered regarding the major impacts related to the aspects of integrity and the views of OUV Borobudur as follows:

<table>
<thead>
<tr>
<th>CONCLUSION</th>
<th>MITIGATION RECOMMENDATIONS</th>
<th>GUIDELINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The concept and development program for the Borobudur Concourse Area and</td>
<td>• The concept and development program for the Borobudur Concourse Area and the Borobudur</td>
<td>• Avoid using the same interpretation panel material with the same material</td>
</tr>
<tr>
<td>the Borobudur Recipient Plaza is tied to the Borobudur-Prambanan National</td>
<td>Recipient Plaza must involve archaeologists and architectural experts as observers or</td>
<td>as Borobudur Temple, alternative materials such as aluminum and silica</td>
</tr>
<tr>
<td>Archaeological Park / JICA Master Plan (1979), which is located in Zone 1</td>
<td>involve the Borobudur Conservation Center as a technical implementation unit at the</td>
<td>sand,</td>
</tr>
<tr>
<td>and Zone 2, which are nature reserve zones and</td>
<td>Ministry of Education</td>
<td>• The shape of the artwork and relief panel interpretation should be avoided as much as</td>
</tr>
<tr>
<td>• Avoid using the same interpretation panel material with the same material</td>
<td>• The shape of the artwork and relief panel interpretation should be avoided as much as</td>
<td>in the future.</td>
</tr>
<tr>
<td>as Borobudur Temple, alternative materials such as aluminum and silica sand,</td>
<td>as much as in the future.</td>
<td>• The shape of the artwork and relief panel interpretation should be avoided as much as</td>
</tr>
</tbody>
</table>
ancient park zones which are regulated by special regulations because have a direct impact on the authenticity and integrity of Borobudur Temple.

The Borobudur Conservation Area is regulated in Conservation Sub-Area 1 (SP-1) in Presidential Regulation No. 58 of 2014:
- Conservation level 1, without changing and preserving the original objects;
- Conservation level 2, with limited changes to buildings and development without disturbing the physical characteristics of the Cultural Conservation and surrounding ecosystems,
- Based on the level of conservation, development concepts and programs must comply with the provisions. In contrast, buildings and development changes are very limited without disturbing the physical characteristics of the Cultural Conservation and the surrounding ecosystem.
- The width dimension of the existing concourse path is 16 meters. In the plan to improve the concourse path of Borobudur, it is proposed to be widened to 18 meters to provide sufficient access and space for visitors with special needs. The widening plan will add 1 meter to the left and right of the inner path (middle park). Based on the 1979 JICA Master Plan, the width dimension of the concourse path in the middle is 20 M. Therefore, the proposal to increase the concourse path width to 18 M is acceptable, and Culture.
- Facilities and elements that enrich interpretation, narrative, and information about the Borobudur Temple Compounds need to be added to foster and increase appreciation and sense of belonging to the nation's and world heritage,
- Green areas of suitable height and vegetation density should be maximized,
- Markers and/or interpretations must also be added to the building as information to minimize confusion because the addition of a new building can be interpreted as part of the Borobudur Temple Compounds with its uniqueness,
- Adding means of interpretation that can provide educational and experiential value to visitors to Borobudur Temple,
- The need to maintain landscape characters in zone 2,
- The design needs to pay attention to the perspective and character of the village which is in line with the Borobudur area.
- The building design needs to reflect the characteristics of Javanese houses (umpak, poles, roof),
- Avoid designs that can contrast with the surrounding environment and compete with Borobudur,
- Minimizing tree cutting,
- It is necessary to identify the types of festivals, events and rituals that exist so that cultural spaces can be preserved and respected.

possible to have the same thing as in the Borobudur Temple.
- New building designs must still pay attention to the composition, proportion, color, material such as in existing buildings,
- The dominance of green open space is prioritized at 96%. The building must pay attention to the basic building coefficient of 4% and the building floor coefficient of 1.
- To strengthen the Mendut-Pawon-Borobudur relationship, the building must be 10 M away from the roadside, and the height of the building is 10 M.
- Basement must be avoided so that no excavation has the potential to find archaeological potential, even though before building construction requires a test pit at the location where the building will be built.
- The use of traditional roofs with dark colors,
- Planting new vegetation, vegetation must be able to preserve the area. Besides that, the type of vegetation planted is also the result of the interpretation of the reliefs of Borobudur Temple so that it has educational value that can strengthen OUV,
- Provision of access and supporting facilities that can accommodate events and ritual activities.
• Concerning efforts to improve the quality of visits, it is necessary to improve translator facilities to provide education and experiences to visitors,

• Based on the proposed design, interpretation facilities are located to the left and right of the Concourse. It is important to pay attention to the design options for interpretation facilities: color, shape, and materials. Color selection must follow the provisions recommended in the JICA Master Plan (1979: 167-168). The interpretation panel provides information about Borobudur Temple and the cultural landscape of Borobudur as a whole to encourage visitors to visit other areas of Borobudur Temple before continuing to other tourist destinations. The content of the interpretation must be relevant and consistent with the interpretation planned in the entrance square (Mission Report Reactive Monitoring, recommendation 2006),

• Concourse is an important element to present a nuance of a place when visitors enter Borobudur Temple. At the macro level, Concourse is a connecting route between Borobudur Temple and Pawon Temple, which philosophically describes the stages of human life to achieve Buddhahood (JICA, 1979: 50). The harmonious atmosphere between the
Concourse and the temple can facilitate visitors’ interpretation of the Borobudur OUV as a whole (criteria i, ii, and vi).

**D. TRANSFER OF TRADERS AND PARKING AREA TO KUJON ARTS VILLAGE**

<table>
<thead>
<tr>
<th>CONCLUSION</th>
<th>MITIGATION RECOMMENDATIONS</th>
<th>GUIDELINES</th>
</tr>
</thead>
</table>
| • Concept As stated in the provisions above related to activities and land use, the intensity of spatial use, and the construction of buildings, such construction is permitted with the following limitations:  
  - Has traditional characteristics and uses natural and local ingredients. Note: The plan to relocate the Merchant and Parking Area in Zone 2 to Borobudur Art Village in Kujon (Zone 3) fulfills these requirements,  
  - Large buildings are not permitted. Note: Based on the design appearance, the original design size of the building is too large. However, the design has been revised, and the building now meets the criteria in the above regulations,  
  - There’s no basement. Note: The design meets these requirements, and there is no basement,  
  - The highest allowed building is 10 M and cannot be seen from the top of Borobudur Temple to avoid the glare effect of the roof’s reflection. Note: Based on the design | • The relocation of the Merchant and Parking Area in Zone 2 to Borobudur Art Village in Kujon (Zone 3) with a commercial and parking area in Zone 2 to Kujon (Zone 3) must involve archaeologists and architectural experts as observers involving the Borobudur Conservation Center as the technical implementing unit at the Ministry of Education and Culture,  
  • Testing archaeological excavations is required to avoid possible destruction of the potential archaeological underground before the construction process. Given that it is located near Zone 3 and Zone 4, there is a possibility that there are still archaeological findings underground.  
  • It is recommended to use massive vegetation cover (see JICA document 1979; 109-126) to properly camouflage the building area,  
  • Adhere to the permitted building sizes and use traditional characteristics and local materials,  
  • As much as possible avoiding monumental and large mass physical formations,  
  • As much as possible to avoid using the same material as the temple area so as not to confuse perceptions that are considered part | • Avoid using the same interpretation panel material with the same material as Borobudur Temple, alternative materials such as aluminum and silica sand,  
  • The shape of the artwork and relief panel interpretation should be avoided as much as possible to have the same thing as in the Borobudur Temple.  
  • New building designs must still pay attention to the composition, proportion, color, material such as in existing buildings,  
  • The dominant green open space is 80%, the building must pay attention to the basic building coefficient of 20% and the building floor coefficient of 1.  
  • To maintain an area with a rural character and human scale, the building must be 4-10 M away from the roadside and the building height 7-10 M.  
  • Basement must be avoided so that there is no excavation that has the potential to find archaeological potential, even though before building construction requires a test pit at the location where the building will be built  
  • The use of traditional roofs with dark colors, |
appearance, the roofs of some of the buildings on the southern part of the site need to be redesigned to blend well into the background with the vegetation and landscape.
- Covered by dense and tall vegetation so that the maximum building cover is 20% (KDB max 20%), and the remaining 80% must open space and vegetation. The new building does not compete with the temple and blends in with the surrounding village. Note: Based on the description in the proposed design, the building area is 18.8%. So this design part meets the requirements,
- All buildings do not contrast with the surrounding area. Note: Based on the design, the architectural expression accentuates traditional Javanese architecture to respect the surrounding environment,
- Follow the standards of the Basic Building Coefficient, Building Floor Coefficient, and Green Area Coefficient. Note: Based on the design description, all of these criteria have been met and must be applied during the construction process.
• Based on the above provisions, the proposed commercial buildings and parking areas must be carefully designed with the main consideration not to obstruct the view or follow "Never Destroy Sanctity!", In this
• Planting new vegetation, vegetation must be able to preserve the area. Besides that, the type of vegetation planted is also the result of the interpretation of the reliefs of Borobudur Temple so that it has educational value that can strengthen OUV,
• Provision of access and supporting facilities that can accommodate events and ritual activities.
context, the sanctity of the temple must be emphasized concerning other non-historical buildings. Note: The design follows this provision to protect the sanctity of the temple.

- The proposal to build the Borobudur Art Village in Kujon, which contains a commercial area and parking, is acceptable. It will be used as an area for the Kampung Seni for selling souvenirs and art production. As such, it benefits local communities by creating direct and indirect employment for around 3,500 people. This Village Art Market also has a training center for local craftsmen to improve arts and crafts based on inspiration from the OUV Borobudur Temple Compounds.

- These efforts can be increased to create more space for arts education to empower local activities to foster interpretations of cultural heritage, as shown at the Ramayana Theater in Prambanan, which accommodates local art communities.

- The design of the connecting route for the Village Art Market area and Zone 2 (walking, bicycle, wooden/wira wiri village train, wheelchair) must meet the conservation level 2 requirements in SP-1 and must be monitored carefully during construction so as not to reduce the quality of the OUV and the surrounding ecosystem.
### VII. PUBLIC CONSULTATION ON THE CONCEPT AND PROGRAM FOR THE DEVELOPMENT OF KSPN BOROBUDUR

<table>
<thead>
<tr>
<th>No.</th>
<th>TIME AND LOCATION</th>
<th>EVENT</th>
<th>PARTICIPANTS</th>
<th>CONCLUSION</th>
</tr>
</thead>
</table>
| 1.  | Wednesday/9 October 2019 08.30 – 12.00 WIB Awadana Manohara Meeting Room | Public Consultation on Borobudur National Tourism Strategic Region/ Pariwisata Nasional (KSPN) | 1. Ministry of Public Works and Housing  
2. PT. Taman Wisata Candi Borobudur Prambanan Ratu Boko  
3. Borobudur Conservation Board  
4. Scholars  
5. Central Java Provincial Government  
6. Magelang District Local Government  
7. Subdistrict Chief: Borobudur and Mungkid  
8. Local community leaders (Village chiefs of Bojong, Blondo, Kembanglimus, and Hamlet chiefs of Keprekan, Randugunting, Sembungan, and Mr. Maladi) | 1. PR No. 58 needs to be synchronized with the actual condition because there are many inconsistent regulations  
2. Borobudur is surrounded by poor residential area, so they must be prioritized  
3. It is useless for the surrounding communities if Borobudur is well-known throughout the world but they are still live in poor condition |

#### DOCUMENTATION

![Image of public consultation event](image1.jpg)

### DOCUMENTATION

<table>
<thead>
<tr>
<th>No.</th>
<th>TIME AND LOCATION</th>
<th>EVENT</th>
<th>PARTICIPANTS</th>
<th>CONCLUSION</th>
</tr>
</thead>
</table>
2. Ministry of Public Works and Housing  
3. Central Java Provincial Government  
4. Magelang District Local Government  
5. Borobudur and Mungkid Subdistrict Chiefs  
6. Village Chiefs: Borobudur, Wanurejo, Kembanglimus, Bojong, Blondo  
7. Mendut  
8. BPD Chiefs: Borobudur, Wanurejo, Kembanglimus, Bojong, Blondo  
9. Mendut Village Council Chief  
10. Local representatives | 1. Borobudur area is getting dirtier and more crowded. The planned development should solve those problems  
2. The planned new road from Palabapang does not go directly to the temple compound, so that it can be built. The purpose is to divert the flow of visitor traffic to the temple.  
3. The green area surrounding the temple needs to be rearranged, the current condition is bad and deteriorating. |

#### DOCUMENTATION

![Image of public hearing event](image2.jpg)
<table>
<thead>
<tr>
<th>No.</th>
<th>TIME AND LOCATION</th>
<th>EVENT</th>
<th>PARTICIPANTS</th>
<th>CONCLUSION</th>
</tr>
</thead>
</table>
| 3.  | Thursday/ 18 June 2020 08.00 – finished Borobudur Village Economic Board         | Public Consultation on Land Acquisition for KSPN Borobudur Development | 1. Magelang District People’s Representative Council  
2. Ministry of Public Works and Housing  
3. Magelang District Secretary  
4. Magelang District Local Government  
5. Borobudur and Mungkidi Subdistrict Chiefs  
6. Village Chiefs: Borobudur, Wanurejo, Bojong, Blondoi  
7. Mendut Village Chief | 1. KSPN Borobudur has to bring the benefit to the community  
2. KSPN Borobudur has to be able to increase the surrounding people’s income  
3. Borobudur has to improve the surrounding building and environmental planning |

**DOCUMENTATION**

<table>
<thead>
<tr>
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<th>TIME AND LOCATION</th>
<th>EVENT</th>
<th>PARTICIPANTS</th>
<th>CONCLUSION</th>
</tr>
</thead>
</table>
2. Ministry of Public Works and Housing  
3. Magelang District Local Government  
4. Borobudur and Mungkidi Subdistrict Chiefs  
5. Mendut Village Chief  
7. Local representatives | 1. Borobudur is facing water shortage, and it must be prioritized  
2. There are no chairs on the concourse area to the temple, which make it uncomfortable especially for the seniors and children; some chairs need to be placed  
3. The vegetation in zone 1 is poorly maintained and the falling tree or branch might endanger the visitors. The whole vegetation needs to be rearranged |

**DOCUMENTATION**
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<th>CONCLUSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>Wednesday/ 15 July 2020</td>
<td>Improving the communities understanding on the Borobudur Temple Compound Concept and Development Program</td>
<td>1. The Chairman of People’s Representatives Council  2. Related Council Commission  3. Representatives from Borobudur communities such as Komunitas Rawat Ruwat Borobudur  4. Central Java Province Housing Infrastructure Board  5. Bina Marga</td>
<td>1. The development program must accommodate the local artisan surrounding Borobudur area  2. The development program must generate employment for the local communities  3. Borobudur has to improve the surrounding building and environmental planning</td>
</tr>
<tr>
<td></td>
<td>Wednesday/ 15 July 2020</td>
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<td>Wednesday/ 15 July 2020</td>
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<td>Wednesday/ 15 July 2020</td>
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<td>6.</td>
<td>Thursday/ 22 October 2020</td>
<td>Discussion on the progress of KSPN Borobudur Kampung Seni Kujon Development Program</td>
<td>1. Central Government  2. Central Java Provincial Government  3. Magelang District Local Government  4. Borobudur Subdistrict Chief  5. Borobudur Village Chief  6. Borobudur Conservation Board  7. Borobudur Authority Board  8. PT. Taman Wisata Candi Borobudur Prambanan Ratu Boko  9. Panelist (Archaeologist, Cultural Heritage Expert)</td>
<td>1. There needs to be a new location for the shops to replace the old one in Zone 2  2. The new location should guarantee income increase for the shopowners  3. The shopowners have to be trained in souvenir merchandise to follow the market trend  4. The shopowners have to be trained to make souvenirs with Borobudur reliefs motifs  5. There are almost 3000 hawkers who need to be managed so that they can benefit from the development of Borobudur</td>
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<td>No.</td>
<td>TIME AND LOCATION</td>
<td>EVENT</td>
<td>PARTICIPANTS</td>
<td>CONCLUSION</td>
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</tbody>
</table>
2. Magelang District Local Government  
3. Mungkid and Borobudur local army chief  
4. Borobudur and Mungkid Police Chiefs  
5. Borobudur and Mungkid Subdistrict Chiefs  
6. Mendut Village Chief  
7. Village Chiefs: Borobudur, Wanurejo, Bojong, Blondo  
8. Panelist (Archaeologist, Cultural Heritage Expert)  
9. Local representatives | 1. The development program must improve the surrounding infrastructure  
2. Borobudur development program must improve the ecosystem  
3. KSPN Borobudur has to bring the benefit to the community |
<table>
<thead>
<tr>
<th>No.</th>
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<th>EVENT</th>
<th>PARTICIPANTS</th>
<th>CONCLUSION</th>
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</table>
| 8.  | Tuesday/ 10 November 2020 19.00 – finished Borobudur Village Hall | Public hearing for Kujon Hamlet, Borobudur Village residents related to the Relocation of Commercial and Parking Area to Kumpung Seni Kujon | 1. PT. TWC  
2. Central Java Province Housing Infrastructure Board  
3. Magelang District Local Government  
4. Kujon Hamlet, Borobudur Village residents | 1. Kumpung Seni (art village) is a long awaited program promised by the government. It needs to be realized to generate income for the residents  
2. The development program must generate employment for the local communities  
3. There are sanitation facilities such as hand washing and drinking water. It needs to be build |

**DOCUMENTATION**

![Image 1](image1.jpg)

![Image 2](image2.jpg)
<table>
<thead>
<tr>
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<th>EVENT</th>
<th>PARTICIPANTS</th>
<th>CONCLUSION</th>
</tr>
</thead>
</table>
| 9   | Thursday/ 12 November 2020 13.00 – finished Awadhana Room, Manohara | Preparation for Field Survey for KSPN Borobudur Planned Development | 1. Central Government  
2. Central Java Provincial Government  
3. Magelang District Local Government  
4. Borobudur Subdistrict Chief  
5. Borobudur Village Chief  
6. Borobudur Conservation Board  
7. Borobudur Authority Board  
8. PT. Taman Wisata Candi Borobudur Prambanan Ratu Boko  
9. Panelist (Archaeologist, Cultural Heritage Expert) | 1. The houses surround the temple compound that need to be fixed  
2. The development must involve the local communities  
3. KSPN Borobudur Planned Development must involve the stakeholders |
BIBLIOGRAPHY


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Law of the Republic of Indonesia No. 11 of 2010 on Cultural Heritage.

Law of the Republic of Indonesia No. 5 of 2017 on Cultural Development.


Minister of Education and Cultural Decree No. 286/M/2014 on the Establishment Borobudur Geographical Region as National Cultural Heritage.

Presidential Regulation No. 1 of 1992 on Borobudur Tourist Center and Prambanan Tourist Center and the Preservation of Its Surrounding Area.

Presidential Regulation No. 3 of 2016 on National Strategic Project Implementation Acceleration.

Presidential Regulation No. 26 of 1989 on Ratification of Convention Concerning the Protection of the World Cultural and Natural Heritage.

Presidential Regulation No. 58 of 2014 on Zoning Plan of Borobudur and Its Surrounding Area.


MINISTRY OF PUBLIC WORK AND HOUSING
REPUBLIC OF INDONESIA

IMPROVEMENT AND DEVELOPMENT PROGRAM IN BOROBUDUR AREA

2020/2021
IMPROVEMENT AND DEVELOPMENT PROGRAM IN BOROBUDUR AREA *)

A. CULTURE DISTRICT IDENTITY GATE and COMMUNITY CENTER: Zone 4 (JICA, 1979)/ SP 1
   A.1. Palbapang (8 km away from Borobudur temple)
   A.2. Kembanglimus Community Centre (3.5 km away from Borobudur temple)

B. MENDUT – PAWON – BOROBUDUR (MPB) CULTURAL AXIS PATHWAY: Zone 3 (JICA, 1979)/ SP 1
   B.1. Pedestrian bridge of Elo river development
   B.2. Improvement of Bojong Neighborhood street
   B.3. Progo riverside pedestrian pathway (boardwalk) development
   B.4. Pedestrian bridge of Progo river development
   B.5. Improvement of Community bath site facilities (Sendang Lanang – Wadon)
   B.6. Improvement of Balaputradewa street pedestrian

C. BOROBUDUR CONCOURSE AREA IMPROVEMENT: Zone 2 (JICA, 1979)/ SP 1

D. RELOCATION OF COMMERCIAL AND PARKING AREA (ZONE 2) TO THE VILLAGE ART MARKET AT KUJON (ZONE 3): Zone 3 (JICA, 1979)/ SP 1

*) Planned by Ministry of Public Works and Housing (KemenPUPR, Rol)
A.1. CULTURE DISTRICT IDENTITY GATE: PALBAPANG

Zone 4 (JICA, 1979) / SP 1
A.1. CULTURE DISTRICT IDENTITY GATE : PALBAPANG (8 km away from Borobudur temple)

PALBAPANG GATE with the icon of LION is the Culture District Identity Gate that is located 8 km away from Borobudur temple.

Palbapang is a T junction. It is the main access to Borobudur area from Yogyakarta.
A.1. CULTURE DISTRICT IDENTITY GATE : PALBAPANG (8 km away from Borobudur temple)

**EXISTING CONDITION**

Condition: disorganized, slum, full of billboards, completely out of character to support the atmosphere of entering the world heritage site

**PLAN**

Becoming more organized, strengthening the landscape and green area, reinforcing the existence of the Borobudur cultural area and has specific function as an education – interpretation facilities for visitors
A.1. CULTURE DISTRICT IDENTITY GATE : PALBAPANG (8 km away from Borobudur temple)

EXISTING CONDITION

Condition: disorganized, slum, full of billboards, completely out of character to support the atmosphere of entering the world heritage site

PLAN

Becoming more organized, strengthening the landscape and green area, reinforcing the existence of the Borobudur cultural area and has specific function as an education – interpretation facilities for visitors

Total development area: 5.302 m²
A.1. CULTURE DISTRICT IDENTITY GATE : PALBAPANG  (8 km away from Borobudur temple)
A.1. CULTURE DISTRICT IDENTITY GATE: PALBAPANG (8 km away from Borobudur temple)

FRONT VIEW OF THE GATE FROM THE EXIT TOLL

IMAGE DEVELOPMENT OF THE PALBAPANG GATE WITH THE UNESCO MONUMENT OF PATRIMONY
A.1. CULTURE DISTRICT
IDENTITY GATE: PALBAPANG
(8 km away from Borobudur temple)
A.1. CULTURE DISTRICT

IDENTITY GATE
: PALBAPANG
(8 km away from Borobudur temple)

Site Plan – 1
(north side)
A.1. CULTURE DISTRICT
IDENTITY GATE
: PALBAPANG
(8 km away from Borobudur temple)

Site Plan – 1
(south side)
A.1.
CULTURE DISTRICT
IDENTITY GATE: PALBAPANG
(8 km away from Borobudur temple)
elevation
A.1.
CULTURE DISTRICT
IDENTITY GATE: PALBAPANG
(8 km away from Borobudur temple)
A.1. CULTURE DISTRICT IDENTITY GATE: PALBAPANG
(8 km away from Borobudur temple)

ARTWORK
DETAIL DESIGN
A.2. KEMBANG LIMUS COMMUNITY CENTER
Zone 4 (JICA, 1979) / SP 2
A.2. KEMBANGLIMUS COMMUNITY CENTER (3.5 km away from Borobudur temple)

Community Center in Kembanglimus village is developed to support community empowerment program including of the local product (craft and culinary), as well as local art community development that help generate the rural economy and give economic benefit for the local people welfare.
A.2. KEMBANGLIMUS COMMUNITY CENTER (3.5 km away from Borobudur temple)
A.2. KEMBANGLIMUS COMMUNITY CENTER (3.5 km away from Borobudur temple)

**KEMBANGLIMUS COMMUNITY CENTER** facilities will include:

- Pendopo – multi purpose hall (for community gathering, local entrepreneurship training, education – interpretasi gallery, culture performance)
- Local culinary and art – craft bazar, open stage, agro-farm field, restroom, parking area.
A.2. KEMBANGLIMUS COMMUNITY CENTER (3.5 km away from Borobudur temple)

KEMBANGLIMUS COMMUNITY CENTER facilities will include:
- Pendopo – multi purpose hall (for community gathering, local entrepreneurship training, education – interpretasi gallery, culture performance),
- local culinary and art – craft bazar, open stage, agro-farm field, restroom, parking area.
A.2. KEMBANGLIMUS COMMUNITY CENTER (3.5 km away from Borobudur temple)

SOUVENIR AND CULINARY KIOSK FACILITIES AT KEMBANGLIMUS COMMUNITY CENTER

MULIPURPOSE HALL FOR COMMUNITY GATHERING AND ART PERFORMANCE AT KEMBANG LIMUS COMMUNITY CENTER
A.2. KEMBANGLIMUS COMMUNITY CENTER (3.5 km away from Borobudur temple)

MULIPURPOSE HALL FOR COMMUNITY GATHERING AND ART PERFORMANCE AT KEMBANG LIMUS COMMUNITY CENTER

SOUVENIR AND CULINARY KIOSK FACILITY AT KEMBANGLIMUS COMMUNITY CENTER WITH ITS TRADITIONAL ARCHITECTURE STYLE
COMMUNITY CENTER
KEMBANGLIMUS

SITE
PLAN – 1
(north side)
COMMUNITY CENTER
KEMBANGLIMUS

S I T E
P L A N – 2
(south side)
MENDUT – PAWON – BOROBUDUR (MPB) CULTURAL AXIS PATHWAY DEVELOPMENT

Zone 3 (JICA, 1979) / SP 1
MENDUT – PAWON – BOROBUDUR (MPB) CULTURAL AXIS PATHWAY DEVELOPMENT

- Mendut Temple
- Pawon Temple
- Borobudur Temple

- Balaputradewa street pedestrian
- Brojonalan neighborhood street, Wanurejo village
- Progo riverside pedestrian pathway (boardwalk)
- Mayor Kusen street pedestrian
- Bojong neighborhood street
- Pedestrian bridge of Elo river
- Soekarno-Hatta sculpture
- Community bath site (Sendang Lanang – Sendang Wadon)

MENDUT TEMPLE
BOROBUDUR TEMPLE
PAWON TEMPLE

Pedestrian bridge of Progo river

Map showing the cultural axis pathway development with key points and pathways.
Content and interpretation development along the cultural axis pathway as a heritage trail

Social Life Illustration - Religious Society

1. Illustration of family and community social life
2. Illustration of settlement / building technology
3. Livelihood illustration (agriculture, fishing, hunting)
4. Illustration of means of transportation
5. Illustration of trade-economy activities
6. Illustration of governance
7. Illustration of work of art - culture
8. Illustration of religious activities - teaching

Illustration of Social, Economic, Natural and Community Culture

1. Illustration of family and community social life
2. Illustration of settlement / building technology
3. Livelihood illustration (agriculture, fishing, hunting)
4. Illustration of means of transportation
5. Illustration of trade-economy activities
6. Illustration of governance
7. Illustration of work of art - culture
8. Illustration of religious activities - teaching
B.1. MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY DEVELOPMENT

- Pedestrian Bridge of Elo river development

Zone 3 (JICA, 1979) / SP 1
B.2. PEDESTRIAN BRIDGE OF ELO RIVER DEVELOPMENT

Pedestrian Bridge of Elo river (40 m x 3 m)
B.1. PEDESTRIAN BRIDGE OF ELO RIVER DEVELOPMENT

Pedestrian Bridge of Elo river (40 m x 3 m)

EXISTING CONDITION (no pedestrian pathway)

PLAN (provide pedestrian pathway)
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Pedestrian Bridge of Elo River (40 m X 3 m)

SITE PLAN

KETERANGAN :
1. Design menyesuaikan dengan pembebasan lahan
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Pedestrian Bridge of Elo River (40 m X 3 m)

Plan
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Pedestrian Bridge of Elo River (40 m X 3 m)

Elevation
Pedestrian Bridge of Elo River (40 m X 3 m)
B.2. MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY DEVELOPMENT

- Improvement of Bojong neighborhood street

Zone 3 (JICA, 1979) / SP 1
B.2. IMPROVEMENT OF BOJONG NEIGHBORHOOD STREET

Improvement of Bojong neighborhood street (560 m x 3 m)
B.2. IMPROVEMENT OF BOJONG NEIGHBORHOOD STREET

EXISTING

PLAN

BOJONG NEIGHBORHOOD STREET
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Improvement Of Bojong Neighborhood Street

SITE PLAN
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Improvement Of Bojong Neighborhood Street

SECTION

-2.00%

Batu Adesit Bakar 20x20 Tebal 2 cm
Mortar 5 cm
Tanah Urug 10 cm

Drainasi U-Ditch 30x50x120

2.80

POTONGAN B-B1 JALAN LINGKUNGAN
Skala 1:20
B.3.

MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY DEVELOPMENT

- Progo Riverside Pedestrian pathway (boardwalk) development

Zone 3 (JICA, 1979) / SP 1
B.3. PROGO RIVERSIDE PEDESTRIAN PATHWAY (BOARDWALK) DEVELOPMENT

Progo Riverside Pedestrian pathway (boardwalk) development (310 m x 3 m)
B.3. PROGO RIVERSIDE PEDESTRIAN PATHWAY (BOARDWALK) DEVELOPMENT

PROGO RIVERSIDE PEDESTRIAN PATHWAY (boardwalk) development (310 m x 3 m)

Existing condition

Brojonalan neighborhood street
Pedestrian bridge of Progo river
Bojong neighborhood street
B.3. PROGO RIVERSIDE PEDESTRIAN PATHWAY (BOARDWALK) DEVELOPMENT
B.3. PROGO RIVERSIDE PEDESTRIAN PATHWAY (BOARDWALK) DEVELOPMENT
B.3. PROGO RIVERSIDE PEDESTRIAN PATHWAY (BOARDWALK) DEVELOPMENT
B.3. PROGO RIVERSIDE PEDESTRIAN PATHWAY (BOARDWALK) DEVELOPMENT

Progo Riverside pathway as a cultural — village tourism route and as an alternative religious route (pilgrimage), which provide the Educational Elements - Interpretation of Ecofacts and Artifacts along the cultural axis (Mendut — Pawon — Borobudur)
Progo Riverside pathway as a cultural — village tourism route and as an alternative religious route (pilgrimage), which provide the Educational Elements - Interpretation of Ecofacts and Artifacts along the cultural axis (Mendut — Pawon — Borobudur)
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Progo Riverside Pedestrian Pathway (Boardwalk) Development

SITE PLAN
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Progo Riverside Pedestrian Pathway (Boardwalk) Development

P L A N
B.3. PROGO RIVERSIDE PEDESTRIAN PATHWAY (BOARDWALK) DEVELOPMENT

Elevated boardwalk structure (2.5 m above the maximum height of the river flood level) to keep its security and safety for the users.
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Progo Riverside Pedestrian Pathway (Boardwalk) Development
SITE PLAN

Entrance Shelter – Community Hall

MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Entrance Shelter – Community Hall

SITE PLAN
MENDUT – PAWON – BOROBUDUR
CULTURAL AXIS
PATHWAY

Entrance Shelter – Community Hall
Entrance shelther
Community hall as an arrival node for visitors before entering the progo riverside pedestrian pathway
B.4. MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY DEVELOPMENT

- Pedestrian Bridge of Progo river development

Zone 3 (JICA, 1979) / SP 1
B.4. PEDESTRIAN BRIDGE OF PROGO RIVER DEVELOPMENT

Pedestrian bridge of Progo river development (120 m x 3 m)
B.4. PEDESTRIAN BRIDGE OF PROGO RIVER DEVELOPMENT

Existing condition

Riverside Pedestrian Pathway (boardwalk) of Progo river development

Bojong neighborhood street

Brojonalan neighborhood street

PEDESTRIAN BRIDGE OF PROGO RIVER DEVELOPMENT
B.4. PEDESTRIAN BRIDGE OF PROGO RIVER DEVELOPMENT
AERIAL VIEW OF THE RIVER PROGO PEDESTRIAN BRIDGE (120 m x 3 m) which apply an organic shape of steel arches structure with wood color finishing and tree ornaments in order to be harmony and be part of the surrounding landscape.
Insertion of tree ornaments onto the bridge steel structure to make its harmony and be part of the surrounding landscape.
MENDUT – PAWON –
BOROBUDUR CULTURAL
AXIS PATHWAY

PEDESTRIAN BRIDGE OF
PROGO RIVER
DEVELOPMENT

Section
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

PEDESTRIAN BRIDGE OF PROGO RIVER DEVELOPMENT

Section
B.5. MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY DEVELOPMENT

- Improvement of Community Bath Site (Sendang Lanang – Sendang Wadon), at Wanurejo Village

Zone 3 (JICA, 1979) / SP 1
B.5. IMPROVEMENT OF COMMUNITY BATH SITE (SENDANG LANANG – SENDANG WADON), AT WANUREJO VILLAGE

EXISTING CONDITION (SITUATION)

1. Bathing pool and water tank (Sendang Lanang)
2. Bathing pool and water tank (Sendang Wadon)
3. Mushola (praying room)
4. Shelter
B.5. IMPROVEMENT OF COMMUNITY BATH SITE (SENDANG LANANG – SENDANG WADON), AT WANUREJO VILLAGE

EXISTING CONDITION
(SITE PLAN)
B.5. IMPROVEMENT OF COMMUNITY BATH SITE (SENDANG LANANG – SENDANG WADON), AT WANUREJO VILLAGE

SITE PLAN
(IMPROVEMENT PLAN)
B.5. IMPROVEMENT OF COMMUNITY BATH SITE (SENDANG LANANG – SENDANG WADON), AT WANUREJO VILLAGE
COMMUNITY BATH SITE: SENDANG WADON, WANUREJO

EXISTING CONDITION

IMPROVEMENT PLAN
COMMUNITY BATH SITE: SENDANG LANANG, WANUREJO

EXISTING CONDITION

IMPROVEMENT PLAN
COMMUNITY BATH SITE: SENDANG LANANG, WANUREJO

EXISTING CONDITION

IMPROVEMENT PLAN
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Improvement of Community Bath Facilities (Sendang Lanang), at Wanurejo Village

SITE PLAN
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Improvement of Community Bath Facilities (Sendang Lanang), at Wanurejo Village

Elevation of the shelter
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Improvement of Community Bath Facilities (Sendang Lanang), at Wanurejo Village

Section of the shelter
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Improvement of Community Bath Facilities (Sendang Lanang), at Wanurejo Village

Elevation of the bathing pool
Improvement of Community Bath Facilities (Sendang Lanang), at Wanurejo Village

Section of the bathing pool
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Improvement of Community Bath Facilities (Sendang Wadon), at Wanurejo Village

SITE PLAN
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Improvement of Community Bath Facilities (Sendang Wadon), at Wanurejo Village

Elevation of the bathing pool
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Improvement of Community Bath Facilities (Sendang Wadon), at Wanurejo Village

Section of the bathing pool
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Improvement of Community Bath Facilities (Sendang Wadon), at Wanurejo Village

Elevation of the shelter
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

Improvement of Community Bath Facilities (Sendang Wadon), at Wanurejo Village

Section of the shelter
B.6. MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY DEVELOPMENT

- Improvement of Balaputradewa Street pedestrian

Zone 3 (JICA, 1979) / SP 1
B.6. IMPROVEMENT OF BALAPUTRADEWA STREET PEDESTRIAN

IMAGE DEVELOPMENT PEDESTRIAN OF BALAPUTRADEWA STREET
MENDUT – PAWON – BOROBUDUR CULTURAL AXIS PATHWAY

IMPROVEMENT OF THE BALAPUTRADEWA STREET PEDESTRIAN

FLOOR PLAN
STREET FURNITURE DESIGN

- Street lamp design
- Man hole design
IMPROVEMENT OF CONCOURSE AREA OF BOROBUDUR TEMPLE (ZONE 2 AND ZONE 1)

Zone 2 (JICA, 1979) / SP 1
IMPROVEMENT OF CONCOURSE AREA OF BOROBUDUR TEMPLE (ZONE 2 AND ZONE 1)

IMPROVEMENT OF THE T JUNCTION (GATE 1)

IMPROVEMENT OF THE MAIN CONCOURSE PATHWAY (East side)

IMPROVEMENT OF THE COURTYARD (inner plaza, located between the Visitor center and the main Concourse pathway)

IMPROVEMENT OF THE ENTRANCE AREA AND VISITOR CENTER
CONCOURSE AREA OF BOROBUDUR TEMPLE
(EXISTING : ZONE 2 AND ZONE 1)

Entrance Area – Ticketing Hall (VISITOR CENTER)

Main Concourse Pathway (East Path)

Concourse as a transition space for visitors before visit Borobudur Temple, with particular function as an education and interpretation area
the existing path shape of Borobudur main Concourse at the east side was curved (width = 16 m)
CONCOURSE AREA OF BOROBUDUR TEMPLE (EXISTING : ZONE 2 AND ZONE 1)

The main concourse pathway will be restored in straight line as drawn in Master Plan JICA 1979
A COMPARISON OF CONCOURSE AREA IMPROVEMENT (MASTER PLAN JICA, EXISTING & PLAN)

Master Plan JICA 1979

- Tangga naik: 5 m
- P = 100m
- L = 10 m
- P = 250m
- L = 20 m
- P = 100m
- L = 30 m

Existing

- Main concourse pathway (east side)
- Entrance area
- Visitor center

Plan

- Main concourse pathway (east side)
- Courtyard (pre concourse)
- Entrance area
- Visitor center

Entrance area
Visitor center
A COMPARISON OF CONCOURSE AREA IMPROVEMENT (MASTER PLAN JICA, EXISTING & PLAN)
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

- MAIN CONCOURSE PATHWAY (East side)
- COURTYARD (Pre Concourse)
- ENTRANCE AREA - VISITOR CENTER (information and ticketing hall)
- DROP OFF AREA FOR VISITORS (next stage development)
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

Existing condition

Improvement plan of the Entrance area (gate 1)
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

Entrance area – ticketing hall (visitor center)
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

Entrance area – ticketing hall (visitor center)

Existing condition
Improvement of the courtyard area which is located between the visitor center (entrance area - ticketing & information hall) and the main concourse path (east side) will be arranged adapted to the guidelines of JICA Master Plan 1979 as a transition space and education – interpretation spot before the visitors proceed to the temple.
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

Improvement of the courtyard area which is located between the visitor center (entrance area- ticketing & information hall) and the main concourse path (east side) with an Audio Visual facility as an education – interpretation spot before the visitors proceed to the temple.
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

AERIAL VIEW of improvement of the Main Concourse Path (east side) based on the JICA Master Plan 1979
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

AERIAL VIEW of improvement of the Main Concourse Path (east side) based on the JICA Master Plan 1979
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

Improvement of the Main Concourse Path (east side) and the UNESCO Patrimony monument
Improvement of the Main Concourse Path (east side) which will provide education and interpretation panel for visitors before visiting the Borobudur temple.
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

Existing condition of the concourse area before the stairs path to the temple

Improvement of the Main Concourse Path (east side) before the stairs path to the Borobudur temple
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

AERIAL VIEW of improvement of the Main Concourse Path (east side) based on the JICA Master Plan 1979
IMPROVEMENT PLAN
OF CONCOURSE AREA
(Zone 2 and Zone 1)
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

ENTRANCE AREA – TICKETING HALL (VISITOR CENTER) AND THE COURTYARD

SITE PLAN
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

THE MAIN CONCOURSE PATHWAY

SITE PLAN
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

THE MAIN CONCOURSE PATHWAY

Floor Plan
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

THE MAIN CONCOURSE PATHWAY

Section 1
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

THE MAIN CONCOURSE PATHWAY

Section - 2
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

THE COURTYARD AND THE AUDIO VISUAL - REST ROOM FACILITY

Floor plan
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

THE COURTYARD AND THE AUDIO VISUAL - REST ROOM FACILITY
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

THE COURTYARD AND THE AUDIO VISUAL - REST ROOM FACILITY
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

THE COURTYARD AND THE AUDIO VISUAL - REST ROOM FACILITY

Roof plan
IMPROVEMENT PLAN OF CONCOURSE AREA (Zone 2 and Zone 1)

IMPROVEMENT OF THE T JUNCTION OF BADRAWATI, PRAMODHAWARDANI AND BALAPUTRADEWA STREET

Site plan
RELOCATION PLAN OF COMMERCIAL AND PARKING AREA (ZONE 2) TO THE VILLAGE ART MARKET AT KUJON (ZONE 3)

Zone 3 (JICA, 1979) / SP 1
EXISTING COMMERCIAL AND PARKING AREA AT ZONE 2 (TOTAL AREA 8.2 ha):

- Commercial - kiosks and parking area is located very close to Borobudur Temple
- There are 3,459 traders (including hawkers), consisting of: 2,061 kiosks, 224 mobile service (massage, umbrella), 1,174 hawkers
- The physical appearance of the commercial and parking area at zona 2 looks bad, crowded and unclean.
RELOCATION PLAN OF COMMERCIAL AND PARKING AREA (ZONE 2) TO THE VILLAGE ART MARKET AT KUJON (ZONE 3)

Existing location of Commercial – kiosks and Parking area inside zone 2 of Borobudur temple compound (8.2 ha)

New location for relocation of Borobudur Commercial – kiosks and Parking area at KUJON area (at zone 3) with a total area of 10.74 ha.
A new relocation area at Kujon with total area of 10.7 ha, consists of:

- Kujon Village property (3.78 ha)
- Magelang regency property (0.8 ha)
- Central Java Province property and Ministry of State Owned Enterprises (6.96 ha)
PROPOSE LOCATION OF THE RELOCATION COMMERCIAL AND PARKING AREA (ZONE 2) TO THE VILLAGE ART MARKET AT KUJON (ZONE 3)
FACILITY DEVELOPMENT PLAN OF VILLAGE ART MARKET

**PARKING AREA**
(BUSES, CARS)

**COMMERCIAL - KIOSKS**
(souvenir shop, culinary – food court)

**ENTRANCE PLAZA – LOBBY HALL AND INFORMATION (VISITOR CENTER)**

**HERITAGE SHUTTLE SERVICE (KUJON – BOROBUDUR)**

**CULTURE CREATIVE SPACE:**
WORKSHOP – MULTIPURPOSE HALL (for art exhibition, academic – community discussion, etc.)

**CULTURE CREATIVE SPACE FOR LOCAL ART PERFORMANCE**
(open stage/ amphitheatre, indoor stage)

**NEW ATTRACTION - GALLERY OF EDUCATION AND INTERPRETATION**
(Museum, Botanical Garden, Landscape garden)

**SUPPORTING FACILITIES AND EQUIPMENT**
(bike station, prayer room, office for management, security, lavatory/ rest room, first aid service and health facilities, mechanical and electrical control room)
Componen of Facilities:

1. Entrance area / hall
2. Souvenir shop and culinary – food bazar
3. Workshop/ multipurpose hall/ Education Gallery
4. Outdoor space – courtyard - Landscape garden
5. Botanical Garden - plants as inspired from the relief of Borobudur
6. Open stage – creative space
7. Deck – feeder shuttle service
8. Parking area
9. Multipurpose hall (pendopo Joglo)
10. Bike station

Luas 10,74 ha
DEVELOPMENT PLAN OF THE VILLAGE ART MARKET – BOROBUDUR, KUJON AREA (ZONE 3)

SITE PLAN
Level 01 (-4.00)
SITE PLAN
Level 02 (0.00)

DEVELOPMENT PLAN OF THE VILLAGE ART MARKET – BOROBUDUR, KUJON AREA (ZONE 3)
EXISTING CONDITION

PLAN

Aerial view of Village Art market - Borobudur, Kujon
EXISTING CONDITION

Aerial view of Village Art market - Borobudur, Kujon

PLAN
DEVELOPMENT PLAN OF THE VILLAGE ART MARKET – BOROBUDUR, KUJON AREA (ZONE 3)

Aerial view of Village Art market - Borobudur, Kujon
DEVELOPMENT PLAN OF THE VILLAGE ART MARKET – BOROBUDUR, KUJON AREA (ZONE 3)

Village Art market - Borobudur, Kujon (entrance area)
court yard 01 – creative space for local community art performance and exhibition, and the Botanical Garden
court yard 02 – creative space for local community art performance and exhibition (amphitheater), the Botanical Garden and stone garden
The Museum - Education and Interpretation Gallery
DEVELOPMENT PLAN OF THE VILLAGE ART MARKET – BOROBUDUR, KUJON AREA (ZONE 3)
DEVELOPMENT PLAN
OF THE VILLAGE ART
MARKET – BOROBUDUR,
KUJON AREA (ZONE 3)

ELEVATION
DEVELOPMENT PLAN OF THE VILLAGE ART MARKET – BOROBUDUR, KUJON AREA (ZONE 3)
DEVELOPMENT PLAN
OF THE VILLAGE ART
MARKET – BOROBUDUR,
KUJON AREA (ZONE 3)

FRONT
ELEVATION

Entrance hall
and bazar
building
DEVELOPMENT PLAN
OF THE VILLAGE ART
MARKET – BOROBUDUR,
KUJON AREA (ZONE 3)

FRONT ELEVATION
Entrance hall and art – craft bazar building
MINISTRY OF PUBLIC WORK AND HOUSING
REPUBLIC OF INDONESIA

2020/2021
Responding to letters from the World Heritage Center dated 23 October 2020, 4 November 2020, and 12 January 2021 regarding the State of Conservation on Borobudur Temple Compounds (Indonesia), WHC requested comments from the agency responsible for the protection of heritage properties regarding Borobudur National Tourism Strategic Area (NTSA) Arrangement Plan. Related to this, we convey the following:

1. The Borobudur Conservation Office adheres to the World Heritage Convention in protecting Outstanding Universal Value. Any intervention that will be carried out at Borobudur Temple Compounds must be based on the objective of strengthening the OUV and prevent any harm to the compounds. The inputs given are based on efforts to maintain the integrity and authenticity of Borobudur Temple Compounds;

2. The Borobudur Conservation Office has been involved in the preparation of the Integrated Tourism Master Plan of Borobudur-Yogyakarta-Prambanan (ITMP BYP), which was initiated by the Regional Infrastructure Development Agency (BPIW), Ministry of Public Works and Public Housing in June 2019. This Master Plan is designed as a reference for the development plan of the Borobudur Temple Compounds' tourism infrastructure. In the process, the Borobudur Conservation Center has provided input and suggestions to enrich the document;

3. The Ministry of Education and Culture received a Detailed Engineering Design (DED) from the Ministry of Public Works and Public Housing through letter No. CK.0301-Dc / 146 dated 18 February 2021. The HIA study was carried out and provided some suggestions for improvements to this DED;

4. Furthermore, the Ministry of Education and Culture received improvement DED from the Ministry of Public Works and Public Housing through letter No. CK 0301-Dc / 234 dated March 16, 2021. Based on this latest DED, the HIA study was conducted and sent to the UNESCO WHC Secretariat on April 5, 2021;

5. The Detailed Engineering Design (DED) of the Borobudur NTSA Arrangement Plan is not based on the ITMP BYP, and there are concerns that it may harm the Outstanding Universal
Value of the Borobudur Temple Compounds. Therefore, Borobudur Conservation Office and the Directorate of Cultural Protection, both within the Ministry of Education and Culture structure, advised the Ministry of Public Works and Public Housing to conduct a Heritage Impact Assessment before the arrangement plan is carried out. It is to avoid negative impacts that may arise as a result of the arrangement. Also, the Borobudur Conservation Office reminded that the arrangement plan should conform to the provisions contained in Presidential Regulation Number 58 of 2014 so as not to cause problems related to space utilization in the Borobudur Temple Complex. The Borobudur Conservation Office has been involved in the discussion of the Borobudur NTSA Arrangement Plan since October 1, 2020;

6. During the Heritage Impact Assessment preparation, the Borobudur Conservation Office has provided input and suggestions, including the need for adjustments to the design of several projects in the Borobudur NTSA Arrangement Plan. However, some suggestions have not been accommodated due to technical and safety considerations;

7. At the national level, suggestions and input from the Ministry of Education and Culture (including the Borobudur Conservation Office) have received positive responses and appreciation from various parties. This matter was then discussed at the Ministerial level meeting held on March 12, 2021. Several things that were agreed upon were:

a. The entire design of the Borobudur NTSA Arrangement Plan must be approved by the Ministry of Education and Culture;

b. Arrangement plans that can be carried out immediately are projects related to improve the quality of life of rural communities in the Borobudur area, namely the bridge of the Elo River, improving the quality of neighborhood path in Bojong Village, improving the quality of neighborhood path in Wanurejo Village, and improving the quality of Sendanglanang (male-pond) and Sendangwadon (female-pond);

c. The arrangement plan that can be carried out with strict restrictions and requires the approval of the UNESCO WHC is the arrangement of the concourse area of Borobudur Temple and the reception plaza because it is part of world heritage property and its buffer zone;

d. The arrangement plans that were postponed until the issuance of the recommendation of the UNESCO WHC were

   • the construction of the Palbapang Gate,
   • the construction of the Kembanglimus Gate,
   • the construction of the Community Center in Kembanglimus,
   • the construction of the Progo River bridge,
   • the construction of a skywalk on the banks of the Progo River, and
• the construction of the Art Village in Kujon;

This decision was made after considering suggestions from the Borobudur Conservation Office, the results of the HIA study, and input from other stakeholders;

8. As the site manager under the Ministry of Education and Culture, the Borobudur Conservation Office will provide assistance and escort to all Borobudur NTSA Arrangement Plan projects at the technical level as stated in the HIA recommendations. It is done so that the project's implementation does not conflict with Presidential Regulation Number 58 of 2014 and does not harm the Borobudur Temple Compounds and the surrounding environment;

9. The Ministry of Education and Culture will coordinate closely with various parties to oversee the Borobudur NTSA Arrangement Plan to positively impact and eliminate negative impacts on the Borobudur Temple Compounds and its environment, including the local community.

Kepala

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