

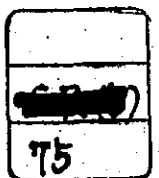
DIRECTORATE GENERAL OF TOURISM
MINISTRY OF COMMUNICATIONS
REPUBLIC OF INDONESIA

THE FEASIBILITY STUDY OF
THE NATIONAL ARCHEOLOGICAL PARKS
DEVELOPMENT PROJECT

CENTRAL JAVA AND YOGYAKARTA AREA

PROGRESS REPORT
MARCH 1975

JAPAN INTERNATIONAL COOPERATION AGENCY
JICA STUDY TEAM



C O N T E N T S

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A P P E N D I C E S

1. P a r t i c i p a n t P e r s o n n e l
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国際協力事業団	
受入 月日 84. 9. 14	108
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Introduction

This progress report is provided to give an outline of the study and the summary of the field survey with a tentative concluding in order to exchange opinions and to make clear understanding of the problems and tasks which we may face in a later stage.

We understand that other studies close to our work, such as "Master Plan of Java and Madura" by T.D.C. and the "Market Study for Domestic Tourism" by U.N.D.P. undergoing. We feel that any duplication of study should be avoided and should be synchronise as much as possible.

After our previous study in 1973, the world economic situation has been changed drastically, especially in tourism sector, its influence may affect directly to the international tourist mobilities.

We have to take into our consideration of these changes of the situation to reach more realistic solution, and we also understand that background and the meaning of the project may have been changed in this respect of priority for the implementation in Indonesia. We think that the realization of this project become more important to Indonesia not only for the limited purposes for tourism use, but also for social, culture development of Indonesia.

Through a discussion with counterparts and officials, we understood that following policy and goal of the development should be our guidelines of the study :

- (1) Creation of nation-wide and inter-regional mobility through a promotion of cultural and educational tourism especially the youth and student tourism.
- (2) Maximization of preservation, revitalization of cultural and historical heritage of Javanese culture.
- (3) Improvement of socio-economic conditions in the area.

1) Definition and Environmental Standards of Parks

We think that Archeological Park is some what "Museum in the Open Air" or in another words "Monuments in Historical Environment".

"What is Historical Environment"

There are several academic theory concerning the monument itself about religious meaning, locations, constructure period etc.

But so far there is no established theory or information which tell us what was the surrounding environment of those monuments and what is the structure of the settle-ment to show the spatial hierachy. We assume, the existing Agricultural Landscape is more or less similar to the environment which is use to be.

For instance there are some relief which shows almost the same scenery of farmers working with the same tools in the rice fields, which is still predominant scene in the area, and it is also quite attractive to the tourist. And to keep such environmental balance and standard we have to adopt certain meassure and method against to the deterioration caused by the development.

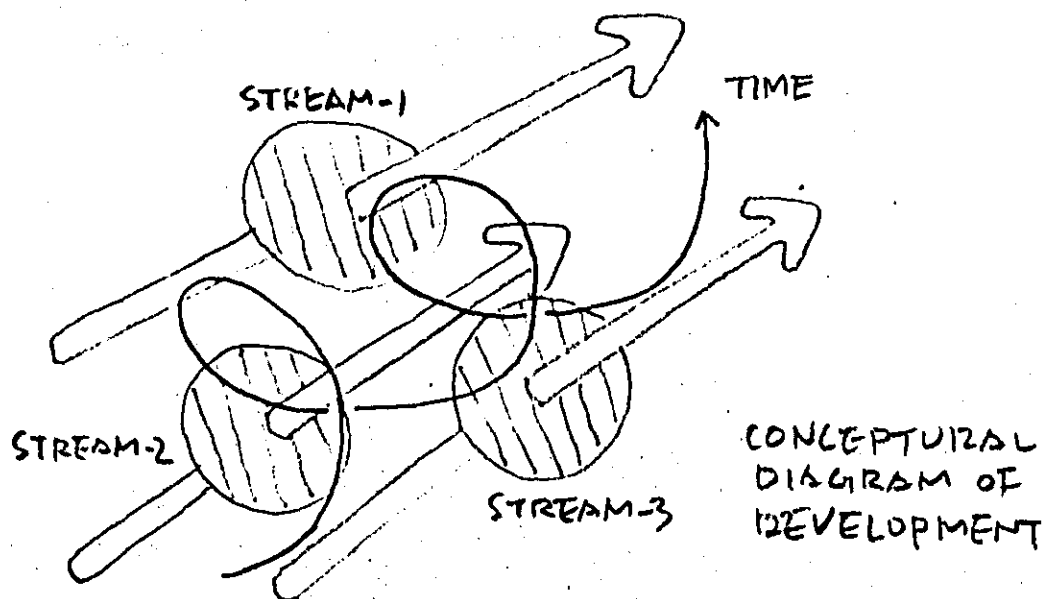
2) Methodology

a. Concept of Planning

The development of the Parks may involve different oriented activities and problems in the area, not only physical environmental deterioration but also destruction of socio-economic structure of the community. We have to formulate those solutions into more integral method of the planning and programming of the development of the Parks.

We formulated those solutions in the following streams :

1. Tourism development stream
2. Preservation of historical and cultural resources stream.
3. Improvement of socio-economic condition stream.



b. Optimization of zoning system

After some of the basic survey and analysis of data designation of confines of Parks will be proposed.

The boundary of the Parks will be confined to overlay several zoning systems such as :

1. Development Zoning Systems
2. Preservation Zoning Systems
3. Control Zoning Systems.

Planning Process

- Step - 1 Definition of zoning concept
- Step - 2 Classification of zoning system
- Step - 3 Designation of sub-system criteria
- Step - 4 Matrix analysis for correlation of each criterion
- Step - 5 Setting up the planning standard
- Step - 6 Decision of exact boundary

3. Inventory and Findings

3.0 General

1. Outline of the study area

- . Location
- . Administration
- . Statistics of the area

3.1 Socio-economics

1. Regional Economy

- . Existing situation and problems
- . Coordination with Repelita II
- . Tourism economy of the region

2. Social Structure

- . Community structure of desa and dukuh
- . Land ownership system
- . village improvement program

3.2 Regional Tourism

1. Framework of regional tourism

- . Forecast of domestic tourism
- . Generating area and tourist inflow
- . Tourism development of Middle Java

2. Tourism Marketing

- . Macro-estimate of tourist inflow
- . Character of tourist activity

3. Existing Situation of Tourism in the Region

- . Tourism resources
- . Tourism accommodation
- . Tourist flow

4. Proposed Tourism Region

- . Tourism Network
- . Tourism Destination
- . Tourism Infrastructure

3.3 Ecology

1. Regional Ecology

- . Tropical ecology
- . Maximum use of the land
- . Agricultural land use and eco-cycle system
- . Natural environment control and development standard

2. Micro ecology of the study area

- . Topography and climate
- . Hydrogy and irrigation
- . Geology and soil
- . Flora and Fauna
- . Vegetation and agriculture
- . Existing land use

3. Land evaluation of the area

3.4 Landscape

1. Regional Landscape

- . Tropical landscape
- . Cultural landscape
- . Agricultural landscape
- . Village landscape
- . Archeological landscape
- . Visual parcel of land

2. Site Landscape

- . Visual analysis of the area
- . Landscape classification of the area
- . Visual control criteria

3.5 Archeology

1. Problem Findings

- . Historical background
- . Problems for reservation
- . Restoration program
- . Reservation criteria and standard

2. Inventory of Archeological Ruins

- . Borobudur area
- . Prambanan area

3.6 Road

1. Access Road

- . Existing road condition and problems
- . Future traffic flow
- . Alternative route study

2. Inner Park Road

- . Road classification
- . Inner transit and parking system
- . Improvement of road and bridge

3.7 Utility

1. Existing Condition and Problems

- . Water supply
- . Seweage
- . Stormwater and irrigation

Electricity supply

. Telephone

2. Future Demand and Systems

3.8 Architecture

1. Village Architecture

. Village Architecture

. Physical structure of dukuh

. Living standard and mode

. Housing standard and form

2. Historical Architecture in the City

. Existing condition and problems

. Preservation of historical environment

. Inventory of historical architecture.

Tentative Framework

1. General

-Forecast of visitor to the Parks were based on tentatively
micro analysis of visitor's data of past several years to
the Park.

At this stage analysis is still underway.

International tourism coming to Indonesia decreased 30%
to 16% of annual growth rate in 1974 and 1975.

On the contrary domestic tourism may become more important
and can be created by more intensive promotional efforts.

To decide the character and the standards of facilities of
the Parks, we should based on domestic tourism requirements,
rather than International tourism.

-Village renewal program is closely related to the implement-
ation of the Parks.

It is the key factor whether Master Plan is really workable
or not.

We are studying to minimize the area in the park for the
use of development, but still 10% of park area may be
required for alteration of existing land use or relocation
of villages.

-As already mentioned in our Work Plan the following measures
will be applied in the case of each villages within the
designated confines of the Parks.

1. Resettlement
2. Modernization
3. Reorganization

We think it is quite important to provide for the villager acceptable physical and non-physical compensation system for the direct impact of the development. Such as to provide substitute location in commercial area in the Park or incentives for job training programme for the operation and maintenance of the Park etc.

-For the preservation of monuments in area should be decided by academic criteria and importance.

We made certain preservation standards in case those monuments to be use for tourism objectives.

2. Development Term

1975)		
)	Phase I	Establishment of Parks
1980)		
)		
1981)		
)	Phase II	Additional Development
)		And Improvement of Parks
1985)		

Phase I shall be settled the initial five years starting from 1975 to 1980, within the term of REPELITA II. Most of the basic works should be finished to establish National Archeological Park in order to have its function and environmental standards of the Parks.

Phase II shall be settled from 1981 to 1985 of the following 5 years.

In Phase II, additional and sub-functional works such as improvement of villages facilities and some additional facilities for educational proposes etc. should be developed.

T A B L E FORECAST : NUMBER OF VISITORS TO THE PARKS

BOROBUDUR PARK

Year	Year Total	Average Day of Year	Average Day of Season	Average Day of off-Season	Peak Day of Year
1973	256,480 (31,438)	703	-	-	-
1975	400,750 (49,120)	1,098	1,464	732	8,015
1980	1,222,992 (149,902)	3,351	4,468	2,234	24,460
1985	3,732,275 (457,465)	10,225	13,633	6,817	74,646

PRAMBANAN PARK

Year	Year Total	Average Day of Year	Average Day of Season	Average Day of off-Season	Peak Day of Year
1973	154,818 (5,083)	424	-	-	-
1975	241,903 (7,942)	663	884	442	4,838
1980	736,230 (24,214)	2,023	2,697	1,349	14,765
1985	2,252,898 (73,895)	6,172	8,229	4,115	45,058

Note : Trend : 25 percent per year

1973 : Actual Figure

1975 : Standard Year

1980 : Standard Year x 3,05

1985 : Standard Year x 9,3

() : Number of Foreigners

Peak Day : Year Total + 50

Zoning Frame Work

TENTATIVE CRITERIA AND STANDARD FOR PHYSICAL PLANNING AND DESIGN

ZONE - I	Archaeological Sanctuary Zone	<ul style="list-style-type: none">. Radius 50 - 300 m from each ruin
ZONE -II	Archaeological Preservation Zone	<ul style="list-style-type: none">. Radius 2.500 M from each ruin (Archaeological survey area)
ZONE -III	Tourism Development Zone	<ul style="list-style-type: none">. Tourism Facility Area. Tourism Related Improvement Area
ZONE-IV	Village Improvement Zone	<ul style="list-style-type: none">. Clearance Area. Resettlement area. Modernization area. Renewal area (Kecamatan center)
ZONE-V	Land use Control Zone	<ul style="list-style-type: none">. Use zoning classification. Subdivision control<ul style="list-style-type: none">- Setback- Lot occupancy- Floor area ratio- Building height
ZONE-VI	Visual Control Zone	<ul style="list-style-type: none">. Panoramic-View Control. Sequence-View Control. Design Control<ul style="list-style-type: none">- Form- Color- Material

3. Facilities and Standards of the Parks

To select the development components and facilities we have to plan to create unique characters of each Park strengthening it's resources and environmental character.

"Is it necessary to develop accommodation in the Park?".

"Is it inevitable to include recreational facilities in the Park?".

PLANNING INDEX OF BOROBUDUR AREA (TENTATIVE)

O. ZONING AREA

O-1	Archaeological Sanctuary Area	15 Ha
O-2	Archaeological Preservation Area	3.500 Ha
O-3	Tourism Development Area	300 Ha
O-4	Village Improvement Area	1.200 Ha
O-5	Landuse Control Area	-
O-6	Visual Control Area	-

1. ROAD IMPROVEMENT

	Length
1-1 Provincial Road * New Construction	9.500 m (1.500 m)
1-2 Access Road	500 m
1-3 Inner Transit Road	4.500 m
1-4 Village Road	
1-5 Foot Path	
1-6 Bridge *A *B *C	

2. FACILITIES DEVELOPMENT

	Facilities	Site Area
2-1 Symbol Plaza	Visitor's center Main Gate etc.	5 Ha
2-2 Sanctuary Plaza	Borobudur Garden Gate etc.	10 Ha
2-3 Rest Area (Pawon Plaza)	Restaurant Buggy Pool, etc.	2 Ha
2-4 Rest Corner (River Side)	Buggy Pool Toilet etc	0,5 Ha
2-5 Rest Corner	Buggy Pool Toilet etc	0,5 Ha

3. VILLAGE IMPROVEMENT

	Facilities	5,0 Ha
3-1 New Village Core Area	Pasar Kantor School Clinic Mosque, etc.	
3-2 Village Clearance Area		-
3-3 Village Resettlement Area		-
3-4 Village Modernization Area		-

4. UTILITY NETWORK IMPROVEMENT

	Facilities	Length/Area
4-1 Water Supply	*Water Pipe Main	5.500 M2
	**Water Plant	3.000 M2
	*Site Area	5.000 M2
4-2 Sewer	*Sewer Pipe Main	4.500 M2
	**Septic Tank x2	3.000 M2
	*Site Area	
4-3 Stormwater Drainage	*Underground	-
	*Open Ditch	
4-4 Electricity	*Upperground	3.500 M2
	*Overhead	1.000 M2
	*Power station	100 M2

4-5 Telecommunication

- *Tele.Center
- *Wireless System
- *Tele Center
- *(Wire System)

4-6 Waste Disposal

- *Refuse Incinerator
- *Site Area 5.000 M2

TENTATIVE PLANNING INDEX OF PRAMBANAN AREA

O. ZONING AREA

O-1	Archaeological Sanctuary Area	50 Ha
O-2	Archaeological Preservation Area	6.000 Ha
O-3	Tourism Development Area	120 Ha
O-4	Village Improvement Area	1.600 Ha
O-5	Landuse Control Area	-
O-6	Visual Control Area	-

1. ROAD IMPROVEMENT

		Length
1-1	National Road	5.500 m
1-2	Access Road	350 m
1-3	Inner Transit Road	6.500 m
	* River Side New Road	(1.000 m)
1-4	Village Road	-
1-5	Foot Path	1.000 m
1-6	Bridge *A *B *C *D *E	

2. FACILITIES DEVELOPMENT

	Facilities	Site Area
2-1 Java Cultural Plaza	Visitor's Center Information Main Gate etc.	10 Ha
2-2 Ramayana	Outdoor theater Convention Hall Research Rabo, etc.	5 Ha
2-3 Rest Area (Hill top)	Observatory Promenade Kiosk, etc.	2 Ha
2-4 Rest Corner (Plaosan)	Buggy Pool Toilet, etc.	0,5 Ha
2-5 Rest Corner (Sari)	Buggy Pool Toilet etc.	0,5 Ha
2-6 Rest Corner (Kalasan)	Buggy Pool Toilet Kiosk, etc.	0,5 Ha
2-7 Rest Corner (Sodiwan)	Buggy Pool Toilet etc.	0,5 Ha

3. VILLAGE IMPROVEMENT

	Facility	Area
3-1 New Village Core Area (Yogya)	Pasar Kantor School, etc.	5,0 Ha
3-2 New Village Core Area (Central Java)	Pasar Kantor School, etc.	5,0 Ha
3-3 Village Clearance Area		
3-4 Village Resettlement Area		
3-5 Village Modernization Area		

4. UTILITY NETWORK IMPROVEMENT

	Facilities	Length/Area
4-1 Water Supply	*Water Pipe Main	5.500 m2
	**Water Plant	3.000 m2
	*Site Area	5.000 m2
4-2 Sewer	*Sewer Pipe Main	5.000 m2
	**Septic Tank	3.000 m2
	*Site Area	5.000 m2
4-3 Stormwater Drainage	*Under ground (National road partly)	1.600 m2 (3.200 m2)
	*Open Ditch (Other Road)	
4-4 Electricity Supply	*Underground	3.000 m2
	*Over Head	2.500 m2
	*Power Station	100 m2
4-5 Telecommunication Supply	*Telecenter (Wireless System)	
	*Telecenter (Wire System)	
4-6 Waste Disposal	*Refuse Incinerator	
	*Site Area	5.000 m2

** Until 1980

A P P E N D I X

1. Participant Personnel

The Japanese supervisory committee consisted of the following members :

- | | |
|--|---|
| 1. Mr. Yoshiomi Enomoto
Chairman | Executive Director
Japan National Tourist
Organization |
| 2. Mr. Takeshige Sasaki
Vice Chairman | Director, Tourist Promotion
Division, Department of
Tourism, Ministry of
Transport. |
| 3. Mr. Hideo Tokuhira
Member | Special Grade Engineer
International Cooperation
Office, Planning Bureau
Ministry of Construction |
| 4. Mr. Soshun Iside | Director, Tourism and
Recreation Area Planning
Office, Facilities
Division Department of
Tourism, Ministry of
Transport. |
| 5. Mr. Watanabe
Member | Ministry of Economic Planning |
| 6. Mr. Katsura
Member | Ministry of Construction
Department of Park in Urban
Area |

The Indonesian Steering Committee Members :

- | | |
|------------------------|--|
| 1. Mr. M.J. Prajogo | Director General of Tourism |
| 2. Mr. Let.Col. A.Azis | Secretary Steering Committee
for T.D.C. |
| 3. Drs. Sardjiono | Head of Dinas Parawisata
Central Java. |
| 4. Ir. Soeparto | Project Officer |
| 5. Ir. Soemadi | Planning Division of the
Directorate General of Tourism |

6. Mr. Fuad Senior officer, BAPPENAS
7. Drs. Uka Senior officer, Department of Education and cultural Affairs
8. Ir. Abdulrachman
9. Prof. Sujudi
10. Ir. Radinal Mochtar
11. Ir. A. Sjamsoeddin
12. Ir. Abukasan

The Jica Survey team consisted of the following:

Project Manager Civil Engineer	Keiichi Fukuoka
Deputy Project Manager Architect Planner	Sohiko Yamada
Project Coordinator Civil Engineer	Yoshikazu Itoh
Economist	- Fujii/T - Umeshita/T
Planner	Yasutaka Nagai Matsuo/H
Ecologist	- Haruhito Kobayashi - Odaira/K
Architect	- Mikio Shiga - Yasuhiro Iwasaki
Landscape Architect	- Naito
Water Engineer	Takuya Tamura
Road Engineer	Kazuo Yagi

MINUTES OF MEETING

Date: February 12, 1975
Time: 10.00 hours
Place: Room of Director General of Tourism
Chairman: Director General of Tourism
Subject: Central Java Tourism Development Project
Attendants:

Japanese Members

Mr. Sadao Iwata
Second Secretary
Japanese Embassy

Mr. Tokuhiko
Supervisory Committee
Member of Japanese Government

JICA Study Team:

Mr. Keiichi Fukucka
Project Manager

Mr. Sohiko Yamada
Deputy Project Manager

Mr. Yoshikazu Ktoh
Project Coordinator

Mr. Yasutaka Nagai
Planner

Mr. Haruhito Kobayashi
Ecologist

Mr. Mikio Shiga
Architect

Mr. Takuya Tamura
Water Engineer

Mr. Kazuo Yagi
Road Engineer

Members of Steering Committee,
Indonesian Government

Mr. M. J. Prajogo
Director General of Tourism

Let. Col. A. Azis
Secretary, Steering Committee
for T.D.C.

Drs. Sardjono
Head of Dinas, Directorate
General of Tourism

Ir. Soeparto
Project Officer

Ir. Soemadi
Secretary, Directorate General
of Tourism

Mr. Fuad
Senior Officer, BAPPENAS

Drs. Uka
Senior Officer, Pendidikan
(Absent)

Prof. Sujudi

Ir. Abukasan

Ir. Abdulrachman

Ir. A. Sjamsoeddin

Ir. Radinal Mochtar

1. The meeting was assembled to discuss the matters related with the Central Java Tourism Development Project.

2. The meeting was opened with Mr. Prajogo's brief speech, welcoming the Japanese Government's team and explaining the urgent necessity of the implementation of the national Archeological Park Project as the continuation of the study conducted by the OTCA Team, the Japanese Government last year.
3. Mr. Yamada, the spokesman of the JICA Study Team explained the work programme of the team which was previously discussed with Director General of Tourism on February 10, 1975.
4. The major items discussed at the meeting were:
 - 1) unclarified and pending points of the Terms of Reference;
 - 2) comments for the Terms of Reference from the Indonesian Government;
 - 3) data and counterpart personnel request from the JICA Study Team along the original Terms of Reference.
5. After some length of discussions on the unclarified and pending points of the Terms of Reference (Scope of Work), both parties reached the conclusion noted below:
 - 1) The terms of Reference (Scope of Work) which was forwarded to Directorate General of Tourism from Mr. Iwata, Japanese Embassy should remain unchanged; however, the JICA Study Team and the Steering Committee of the Indonesian Government are in agreement that the comments from the Indonesian Government should be noted down in this Minutes of Meeting for a proper incorporation in the studies to be made by the JICA Study Team.

- 2) The wording, "three Archeological Parks" in Section 2-1 of the original Terms of Reference should be read as "two National Archeological Parks - Borobudur and Prambanan, and review of the existing Master Plan of Dieng".
- 3) The scale of Master Plan (1:10,000) noted in Section 2, 2-1, b. of the original Terms of Reference, should remain unchanged.
- 4) As Section 2, 2-1; c., c-7, "Elements for the formulation of regulations concerning density ratios, height limitations, building codes, etc. for the main superstructures" should be inserted.
- 5) The originally described "c-7. Construction design for the main superstructures" should therefore become Section 2, 2-1, c., c-8.

6) Cost estimate standards:

The cost estimates of the project to be made by the JICA Study Team should be allowed to have a margin of ± 20 percent.

Cost escalation and contingencies factors should be discussed in due course of time, in the interim stage of the study.

6. The Indonesian Steering Committee requested the JICA Study Team to make a brief study of Sangiran Area in addition to what described in the Terms of Reference. The JICA Study Team agreed to review the Master Plan of Sangiran Area and would make a brief field survey in such a manner as will not affect the execution of main duties and make comments on the measures for the preservation of Sangiran Area.

7. A list of data and information shown in the attached sheets was presented by the JICA Survey Team, and requested to be made available to the Team at an earliest possible date.

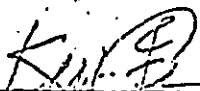
It was agreed that each requested item should be discussed with the Steering Committee as to the time and place of supply to the JICA Study Team.

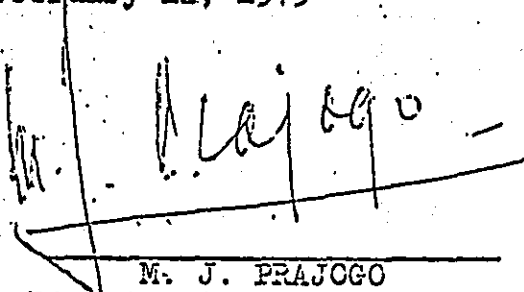
Of the requested items, the following were especially requested for a prompt supply by the Team:

- 1) Aerial Photograph, 1:10,000 of Borobudur and Prambanan Areas; the same photograph with which the Indonesian Government produced topographic maps.
 - 2) Topographic maps of Prambanan Area and Borobudur Area; the delivery to the Team of Prambanan Area Maps on February 15, 1975 and Borobudur Area Maps during the Team's field surveys was confirmed.
 - 3) High Resolution Aerial Photographs at the scale of 1:5,000, not at the scale of 1:2,000, and topographic maps with the scale of 1:2,000; these will be delivered to the JICA Study Team by the end of April 1975.
 - 4) Master Plan of Dieng Area and Sangiran Area made by Regional Government; the delivery to the Team will be made in Semarang.
8. The JICA Team requested for cooperation by the Indonesian Government counterparts to be assigned by the Steering Committee. It was confirmed that the Steering Committee would assign six (6) experts to work jointly with the JICA Study Team during the field surveys.

9. It was confirmed, at the end of the meeting, that the next meeting would be held on March 8, 1975.

Jakarta, February 12, 1975


KEI-ICHI FUKUOKA
Project Manager
JICA Study Team


M. J. PRAJOGO
Director General of Tourism

3. WORK UNITS

LIST OF WORK UNITS

Study classification	Job code and name	First half	Second half
<u>Study-1</u> Physical Plan- ning for National Archeological Parks Borobudur and Prambanan Areas	WU01 Environmental Survey	⊙	
	WU02 General Plan 1:10,000	○ → ⊙	
	WU03 Master Plan 1:5,000	○ → ⊙	
	WU04 Site Development Plan 1:2,000		⊙
	WU05 Cost Estimates/Construction Schedule	○ → ⊙	
Dieng Area	WU06 Review of Dieng Master Plan	⊙	
<u>Study-2</u> Studies Relating to Archeological Parks	WU07 Socio-economic Feasibility Study	○ → ⊙	
	WU08 Development Organization/ Management System Study	○ → ⊙	
	WU09 Development Standards and Regulation Study	○ → ⊙	
<u>Study-3</u> Study of Related Projects	WU10 Study of City Tourist Assets	⊙	
	WU11 Study of Tourist Accommodation	⊙	

Note : ○ indicates the contents of the Interim Report,
and ⊙ the contents of the Final Report.

Survey of the natural and socioeconomic environments of the areas involved is a basic requirement not only for determination of the boundaries of the national archeological parks but also for drafting the land-use and facility layout plans.

The survey will point up the features of the areas involved in an extremely scientific manner, following the order : (1) data collection, (2) mapping, (3) synthesis of the different items, and (4) overall evaluation.

The survey, which will be on a scale of 1:10,000, will cover the Borobudur and Prambanan areas.

The following are some of the basic survey items:

- (1) Present land-use conditions
- (2) Topographical conditions
- (3) Soil conditions
- (4) Hydrographic conditions
- (5) Vegetation conditions
- (6) Lot and building distribution
- (7) Present state of public facilities system
- (8) Distribution of archeological sites
- (9) Administrative boundaries
- (10) Land ownership classification
- (11) Visual analysis

GENERAL PLAN

WU02

GENERAL PLAN (Scale 1:10,000)

- (1) Definition of the intensive tourism development areas;
- (2) Establishment of zoning boundaries;
- (3) Designation of the special areas for preservation, development and improvement;
- (4) Land use pattern;
- (5) Population density plan;
- (6) Environmental improvement plan;
- (7) Main superstructure layout;
- (8) Road transportation system;
- (9) Village renewal; and
- (10) Access roads.

MASTER PLAN

WU03

MASTER PLAN (Scale 1:5,000)

- (1) Detailed land use plan for the designated areas:
 - preservation areas (archeological monuments and surroundings);
 - intensive tourism development areas;
 - village renewal and improvement areas; and
 - other related development areas.
- (2) Development criteria and zoning regulations for the designated areas;
- (3) Common superstructure layout;
- (4) General landscaping layout;
- (5) Internal road transportation network;
- (6) Detailed infrastructure layout;
- (7) Access roads; and
- (8) Schedule of execution of the various phases of the project.

The study regarding village renewal within the Borobudur and Prambanan Archeological Parks will be as follows.

Since both areas have a high population density of over 700 persons per hectare, there are bound to be many densely inhabited districts (DID) included within the designated confines of the parks. In fact, there are even villages right next to some of the archeological sites. Hence the need for village relocation without changing the existing community structure.

One of the following measures will therefore be applied in the case of each of the villages within the designated confines of the park :

(1) Resettlement

Moving of villages right next to archeological sites to appropriate substitute locations.

(2) Modernization

Promotion of modernization of the village environment through various kinds of public investment for improvement of the living and production base.

(3) Reorganization

Tax breaks and a system of returning some of the profits of the tourism facilities to the local villages as compensation for legal regulation of land use for the purpose of maintaining the park environments.

BOROBUDUR ACCESS ROAD

A provincial road about 10 km in length leading to Mendut Temple from a point midway between the towns of Muntilan and Mungkit on the existing national road is now serving as the access road to the Borodudur area.

The future access route to the Archeological Park will be selected on the basis of a comparative study of the above-mentioned provincial road and two or three village roads running parallel to it, including the possibility of widening or otherwise improving the existing road or changing its course at some points.

PRAMBANAN ACCESS ROAD

Since a national road runs through the area and about three kilometers of its length within the area constitutes the center of the town of Prambanan, the decision on the access road will be made on the basis of a comparative study of the following alternative possibilities, taking into account the land-use pattern of the surrounding area :

- (1) Widening of the existing road
- (2) One-way traffic
- (3) Building of a by-pass
- (4) Some combination of the above

SITE DEVELOPMENT PLAN

WU04

SITE DEVELOPMENT PLAN (Scale 1:2,000)

- (1) Exact boundaries of the areas;
- (2) Ground levelling and rain water drainage system;
- (3) Internal roads, parking areas and footpath networks;
- (4) Water supply and sewerage systems;
- (5) Electric power supply and telephone systems;
- (6) Landscaping layouts;
- (7) Subdivision control; and
- (8) Construction design for the main superstructure.

- (1) Forecasting the overall additional income from tourism to the region, as it accrues at different levels (and proposing any new facilities needed to optimize it) simply in order to confirm the potential of the region for tourism;
- (2) Estimating the costs of investments, operation and maintenance of the two proposed parks;
- (3) Proposing a system of admissions to the two parks, and based on the estimate of income from these admissions, and the estimates shown under, preparing a cash-flow for the park system.

1. Analysis Income from Tourism

A) Gross annual income from tourists visiting the region:

- i) Number of tourists visiting (foreign and domestic);
- ii) Average length of stay;
- iii) Average expenditure by the tourists per day (foreign and domestic); and
- iv) Total gross expenditure by the tourists during their stay in the region.

B) Direct benefits from tourism

- i) Employment
 - primary jobs created (in hotels, restaurants, tourism services, transportation etc.); and

ii) Additional direct incomes

- value of total sale of foodstuffs to tourist hotels and restaurants;
- value of total sale of souvenirs to tourists (incl. batik); and
- others

C) Gross annual expenditures for the tourists for :

- i) Accommodation;
- ii). Food and related services;
- iii) Transportation; and
- iv) Others (incl. expenditures for the three parks).

2. Analysis of expenditures for the two proposed parks

The expenditures should be presented as follows :

- a) The investments, broken down into a suitable number of physically identifiable and separable units, and into their local and foreign exchange components;
- b) The operation and maintenance costs, broken down into suitable items of cash expenditure, such as number and salaries of employee of different level, materials etc., but not including interest and amortization.
- c) All expenditures for the parks and any other facilities for the tourists etc., as well as all incomes from the tourists etc., should be based on present values (i.e.

no inflation to be included in the estimates), since it is very speculative to guess inflation even for the next few years, and including inflation would not change the ratios very much anyway.

**STUDY REGARDING WORKS FOR IMPROVEMENT
OF CITY TOURISM ASSETS**

WU10

This study will be for the purpose of making the following kinds of proposals :

- (1) Proposals regarding works for improvement of historical and cultural tourism assets within the cities of Yogyakarta and Surakarta and preservation of their surroundings, the following assets to be considered.

YOGYAKARTA

Hamengku Bowono Palace
Yogyakarta Palace
Taman Sari Water Castle
Sono Budoyo Museum

SURAKARTA

Mangkunegaran Palace
Solo Palace
Radya Pustaka Museum
Sukuh

- (2) Proposals regarding the promotion of tourist-oriented industries within Yogyakarta and Surakarta, including the Batik Village and the Silverware Village.
- (3) Proposals regarding city tourist routes and city tourist information facilities.

This study will consist of the following, taking into account the basic thinking of the Indonesian Government in this regard and the latest statistical data.

(1) Survey of tourist trends in the area

- Estimates, on the basis of the latest data, of the future number of :
 - * International tourists
 - * Domestic tourists
 - * Intraregional tourists

(2) Survey of accommodation facilities in Yogyakarta and Surakarta

- Number of accommodation facilities of different classes and their respective number of rooms (accommodation capacities)
- Number of guests in the past several years
- Situation with respect to hotel construction plans

(3) Estimates of numbers of accommodation facilities of different classes that will be needed in the years ahead

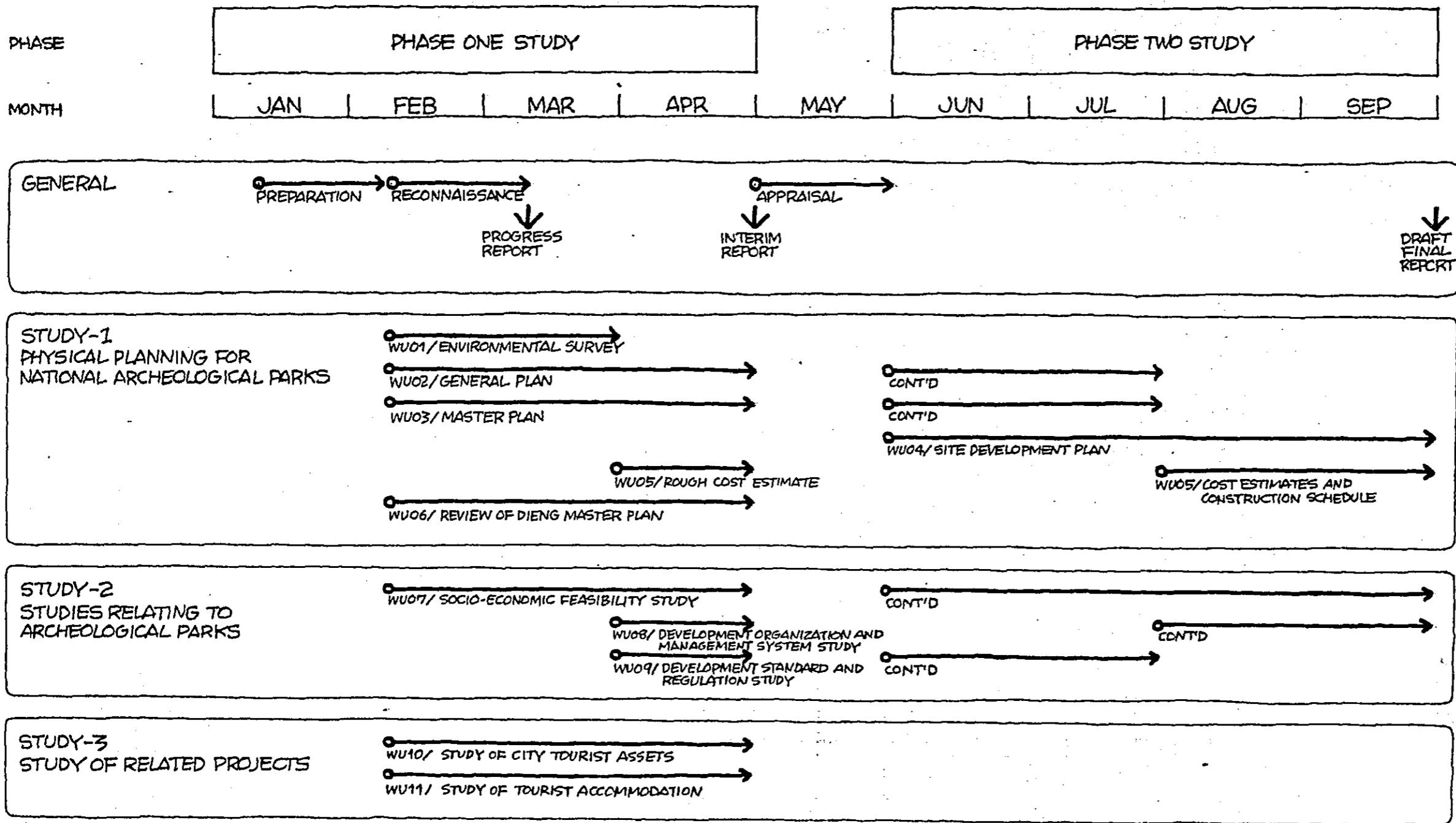
(4) Regional distribution plan for accommodation facilities

- Large-scale Accommodation Center
- Accommodation facilities in Yogyakarta and Surakarta
- Accommodation facilities in the Borobudur and Prambanan Archeological Parks

(5) Plan for promotion of construction of accommodation facilities in each area

(6) Detailed plan for accommodation facilities within the archeological parks

THE FEASIBILITY STUDY OF THE NATIONAL ARCHEOLOGICAL PARKS DEVELOPMENT PROJECT
WORK SCHEDULE



Appendix 4

SURVEY RECORD

	Date	Station	Schedule	
			AM	PM
1		Jakarta	Tokyo to Jakarta	
2	Feb. 10	"	Visit Embassy and Pariwisata	
3	Feb. 11	"	Visit to Borobudur Park	
4	Feb. 12	"	Meeting of Indonesian Steering Committee	
5	Feb. 13	"	Free	Meeting
6	Feb. 14	Yogyakarta	Jakarta tp Yogyakarta	
7	Feb. 15	"	Survey of Dieng and Borobudur	
8	Feb. 16	"	Prambanan and Solo	
9	Feb. 17	"		
10	Feb. 18	"		
11	Feb. 19	"		
12	Feb. 20	"		
13	Feb. 21	"		
14	Feb. 22	"	Survey of Borobudur and Prambanan	
15	Feb. 23	"		
16	Feb. 24	"		
17	Feb. 25	"		
18	Feb. 26	"		
19	Feb. 27	"		
20	Feb. 28	"		
21	March 1	"		
22	March 2	"		
23	March 3	"		
24	March 4	"	Study of Plan	
25	March 5	"		
26	March 6	Jakarta	Yogyakarta to Jakarta	
27	March 7		Meeting with Japanese Embassy afternoon meeting	
28	March 8	Jakarta	Meeting Indonesian Steering Committee	
29	March 9	Jakarta	Meeting	
30	March 10	Jakarta	Jakarta to Tokyo	

Appendix 5

5-1 Data Acquired

1. Statistics of visitors for Borobudur and Prambanan.
2. Data of accommodation facility in Yogyakarta.
3. Master plan of Yogyakarta city.
4. General statistics of Yogyakarta: 1973.
5. Tourism statistics of Yogyakarta.
6. Map of archeological ruins in Prambanan.
7. Land ownership classification map of kecamatan Prambanan and Kalasan in kabupaten Sleman 1 : 12,500.
8. Java-Madura tourism study report.
9. Master plan report of Dieng area Buku 1.
10. Master plan report of Sangiran area.

5-2 Further data required

Statistics of the villages

a) Sphere of the area

1. Borobudur study area

Kabupaten Magelang

Kecamatan Borobudur

Kecamatan Muntilan

Kecamatan Mungkit

2. Prambanan Study area

Kabupaten Sleman

Kecamatan Prambanan

Kecamatan Kalasan

Kabupaten Klaten

Kecamatan Prambanan

b) Data required

1. Administrative boundary of each kecamatan and kelurahan on map (Scale 1 : 12,500).
2. Lowland area and land use composition of each kecamatan and kelurahan.
3. Population and household data of each kecamatan, kelurahan and dukuh.
4. Land ownership classification on map (scale 1 : 12,500) and area list.
5. Public facility (ex. kantor, pasar, sekolah, mosque, etc) location map.

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