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## **Scope of Work and Minutes of Meeting**

SCOPE OF WORK  
ON  
THE STUDY  
FOR  
ESTABLISHMENT OF GEOGRAPHIC DATABASE  
IN  
THE REPUBLIC OF THE GAMBIA

AGREED UPON BETWEEN

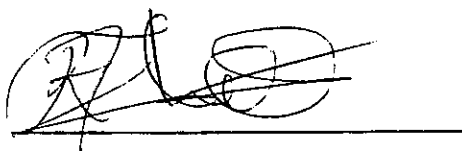
DEPARTMENT OF LANDS AND SURVEYS

AND

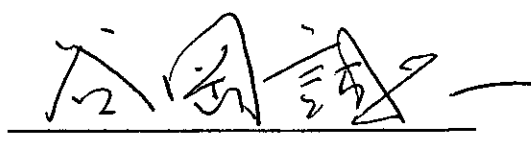
JAPAN INTERNATIONAL COOPERATION AGENCY

BANJUL

18 December, 2000



RUTHERFORD A. F. THOMAS  
Director  
Department of Lands and Surveys,  
Department of State for Local Government  
and Lands



SEIICHI TANIOKA  
Leader  
Preparatory Study Team  
Japan International Cooperation Agency





## I. INTRODUCTION

In response to a request by the Government of the Republic of The Gambia, the Government of Japan has decided to conduct the "Study for Establishment of Geographic Database in the Republic of The Gambia" (hereinafter referred to as "the Study"), in accordance with the relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of the Government of the Republic of The Gambia.

The present document sets forth the scope of work with regard to the Study.

## II. OBJECTIVES OF THE STUDY

The objectives of the Study are to:

- 1) prepare digital topographic maps covering the whole country at the scale of 1:50,000, that will assist the Republic of The Gambia in developing various plans and programs; and
- 2) pursue technology transfer in the course of implementation of the Study.

## III. STUDY AREA

The Study shall cover an area of about 11,295 km<sup>2</sup> being the whole country of the Republic of The Gambia.

## IV. SCOPE OF THE STUDY

In order to achieve the objectives mentioned above, the Study shall cover following items.

- 1) Review of Existing Conditions

Existing conditions relevant to the Study including organizational set-up, mapping system, facilities management and control points shall be reviewed.

- 2) Ground Control Point Survey

Ground control points composing of the national geodetic control network shall be established.



- 3) Aerial Photography  
1:50,000 black and white aerial photographs covering the Study area shall be taken.
- 4) Control Point Survey and Pricking  
Control point survey and pricking shall be carried out.
- 5) Aerial Triangulation  
Aerial triangulation shall be carried out to establish photo control points.
- 6) Field Identification  
Topographic information shall be identified mainly using the aerial photographs. The field identification shall be conducted in case the information on the aerial photographs is difficult to be interpreted.
- 7) Digital Mapping  
Digital mapping shall be carried out by using the aerial photographs and 1:50,000 scale digital topographic data shall be prepared.
- 8) Structurization  
The digital topographic data shall be structured into vector framework data.
- 9) Editing and symbolization  
The digital topographic data shall be edited and symbolized to print topographic line maps at the scale of 1:50,000.
- 10) CD-ROM production  
The digital topographic data shall be compiled into CD-ROM.
- 11) Printing of Maps  
The digital topographic data shall be printed at the scale of 1:50,000.
- 12) Technology Transfer  
In order to facilitate technology transfer to the counterpart personnel, part of the above-mentioned items shall be undertaken by the counterpart personnel under the technical supervision of the Study team.
- 13) Dissemination of the Final Products  
Recommendations for the wide and effective use of the geographic database produced under the Study shall be prepared.

## V. STUDY SCHEDULE

The Study shall be implemented in accordance with the tentative Study schedule shown in Appendix. The schedule, including report submission dates stated in the next clause (VI), is tentative and subject to be modified when both parties agree upon and any necessity that arises during the course of the Study.



## VI. REPORTS AND FINAL PRODUCTS

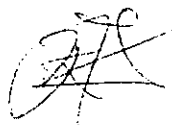
JICA shall prepare and submit the following reports in English and the final products of topographic mapping works to the Government of the Republic of The Gambia.

1. Inception Report  
20 copies                      At the beginning of the Study
2. Progress Reports  
20 copies                      At the end of the first year and the second year
3. Draft Final Report  
20 copies                      At the end of the third year
4. Final Report  
20 copies                      At the end of the Study
5. Final products of topographic mapping
  - (1) Negative films of aerial photographs                      1 set
  - (2) Contact prints of aerial photographs                      1 set
  - (3) Results of ground control point survey                      1 set
  - (4) Results of aerial triangulation                      1 set
  - (5) 1:50,000 scale topographic maps  
    - films for printing                      1 set  
    - printed maps                      1000 copies
  - (6) 1:50,000 scale digital topographic data  
    - digital data files (eg. CD-ROM)                      20 sets

## VII. UNDERTAKING OF THE GOVERNMENT OF THE REPUBLIC OF THE GAMBIA

1. To facilitate the smooth conduct of the Study, the Government of the Republic of The Gambia shall take the following necessary measures:

- (1) to secure the safety of the Japanese Study team;
- (2) to permit the members of the Japanese Study team to enter, leave and sojourn in the Republic of The Gambia for the duration of their assignment therein and exempt them from foreign registration requirements and consular fees;
- (3) to exempt the members of the Japanese Study team from taxes, duties, fees and any other charges on equipment, machinery and other materials brought into and out of the Republic of The Gambia for the conduct of the Study;
- (4) to exempt the members of the Japanese Study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese Study team for their services in connection with the



implementation of the Study;

- (5) to provide necessary facilities to the Japanese Study team for remittance as well as utilization of the funds introduced into the Republic of The Gambia from Japan in connection with the implementation of the Study;
- (6) to secure permission for the Japanese Study team for entry into private properties and restricted areas for the implementation of the Study;
- (7) to secure permission for the Japanese Study team to acquire necessary radio frequency for the implementation of the Study;
- (8) to secure permission for the Japanese Study team to take all data and documents including topographic maps, original manuscripts and aerial photographs related to the Study out of the Republic of The Gambia to Japan;
- (9) to secure necessary permission for aerial photography by a foreign registered aircraft for the implementation of the Study; and
- (10) to provide medical services as needed. Its expenses will be chargeable on the members of the Japanese Study team.

2. The Government of the Republic of The Gambia shall bear claims, if any arises, against the members of the Japanese Study team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Japanese Study team.

3. Department of Lands and Surveys (hereinafter referred to as "DL & S") shall act as the counterpart agency to the Japanese Study team and also as the coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

4. DL & S shall, at its own expense, provide the Japanese Study team with the following in cooperation with other organizations concerned:

- (1) available data and information related to the Study,
- (2) counterpart personnel,
- (3) suitable office space with necessary equipment in Banjul,
- (4) vehicles with drivers, and
- (5) credentials or identification cards.





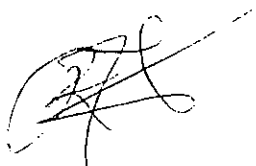
VIII. UNDERTAKING OF JICA

For the implementation of the Study, JICA shall take the following measures:

- (1) to dispatch, at its own expense, the Japanese Study team to the Republic of The Gambia; and
- (2) to pursue technology transfer to the Gambian counterpart personnel in the course of the Study.

IX. OTHERS

JICA and DL&S shall consult with each other in respect of any matter that may arise from or in connection with the Study.



TENTATIVE SCHEDULE OF THE STUDY

|                                 | 1         | 2 | 3 | 4 | 5 | 6 | 7 | 8          | 9 | 10 | 11 | 12 | 13         | 14 | 15 | 16 | 17 | 18        | 19 | 20              |
|---------------------------------|-----------|---|---|---|---|---|---|------------|---|----|----|----|------------|----|----|----|----|-----------|----|-----------------|
| Work<br>in<br>Gambia            |           |   |   |   |   |   |   |            |   |    |    |    |            |    |    |    |    |           |    |                 |
| Work<br>in<br>Japan             |           |   |   |   |   |   |   |            |   |    |    |    |            |    |    |    |    |           |    |                 |
| Reports<br>and<br>Final Product | △<br>IC/R |   |   |   |   |   |   | △<br>PG/R1 |   |    |    |    | △<br>PG/R2 |    |    |    |    | △<br>DF/R |    | △<br>F/R<br>F/P |

MINUTES OF MEETING  
FOR  
THE SCOPE OF WORK  
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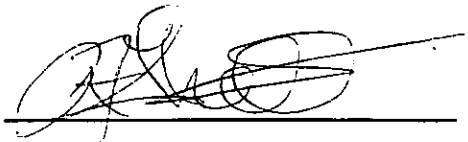
DEPARTMENT OF LANDS AND SURVEYS

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RUTHERFORD A. F. THOMAS  
Director  
Department of Lands and Surveys,  
Department of State for Local Government  
and Lands



SEIICHI TANIOKA  
Leader  
Preparatory Study Team  
Japan International Cooperation Agency



The Japanese Preparatory Study Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Mr. Seiichi TANIOKA (Director of Cartographic Department, Geographical Survey Institute, Ministry of Construction) visited the Republic of The Gambia from 12 December to 18 December, 2000 in connection with the Study on " Study for Establishment of Geographic Database in the Republic of The Gambia" ( hereinafter referred to as "the Study").

The Team had a series of discussions on the Scope of Work of the Study with officials of Department of Lands and Surveys, Department of State for Local Government and Lands (hereinafter referred to as "DL&S"). The attendance list is attached in ANNEX.

Through these discussions, both sides have completed the Scope of Work and confirmed the following points:

1. Both sides agreed that the title of the Study shall be " Study for Establishment of Geographic Database in the Republic of The Gambia ".

2. Both sides agreed that following processes of the Study shall be carried out by counterpart personnel under the technical supervision of the Study Team. The Gambian side shall bear the necessary expenses.

- Ground Control Point Survey
- Control Point Survey and Pricking
- Field Identification

DL&S explained that they did not have necessary equipment for the above processes. The Team promised to convey that situation to JICA Headquarters.

DL&S explained the difficulty in providing the vehicles, and the Team promised to convey that situation to JICA Headquarters.

4. DL&S requested that Gambian counterpart personnel take advantage of training in Japan related to the Study to promote an effective technology transfer. The Team promised to convey this request to JICA Headquarters.

5. DL&S requested that all technology that will be applied for the implementation of the Study should be transferred to the counterpart personnel. The Team replied that the technology for the map revision will be transferred at least. DL&S agreed with the Team.

6. Both sides agreed that in case the aerial photography is not completed in the first year of the Study by unseasonable weather or other reasons the photographing shall be extended within the limits of one (1) year and both sides will consult with each other in respect of changing the method of the Study.

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## Attendant List

## Gambian Side

|                             |                              |
|-----------------------------|------------------------------|
| Mr. RUTHERFORD A. F. THOMAS | Director, DL&S               |
| Mr. OUSMAN SEMEGA JANNEH    | Principal Cartographer, DL&S |
| Mr. OUSMAN S. JARJUSEY      | Principal Surveyor, DL&S     |
| Mr. ALIEU S. JOBE           | Senior Cartographer, DL&S    |

## Japanese Side

|                          |                                     |
|--------------------------|-------------------------------------|
| Mr. SEIICHI TANIOKA      | Leader, JICA Preparatory Study Team |
| Mr. TAKASHI HAYASHI      | Member, JICA Preparatory Study Team |
| Mr. TAKAHIRO KASAI       | Member, JICA Preparatory Study Team |
| Mr. YOSHIMITSU YOSHIMURA | Member, JICA Preparatory Study Team |
| Mr. RYOICHI HASHIMOTO    | Member, JICA Preparatory Study Team |

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## **The monumentation**

# DESIGN OF SURVEY MONUMENT FIRST ORDER GPS NETWORK, DL&S THE GAMBIA

