Fax : +62-21-6546316 e-mail : sunaryo@bmg.go.id

- Technical staff : SUHARJONO MSc

Chief of Earthquake Division

Center for Geophysical Data and information System

Tel : +62-21-65866502 Fax : +62-21-6546316 e-mail : suhard@bmg.go.id

- Technical staff : FAUZY MSc PhD

Chief of Earthquake Engineering and Tsumani Division.
Center for Geophysical Data and information System

Tel :+62-21-6546316
Fax :+62-21-6546316
Massurvone MSc PhD

- Technical staff : Masturyono MSc PhD

Chief of Geopotential and Time Signal Division. Center for Geophysical Data and information System

Tel :+62-21-6546316 Fax :+62-21-6546316

b) Data and information

- Authorized criteria for the issuance of Tsunami Early Warning such as level of warning, foreseen tsunami height, etc.
- Authorized regional partition for the issuance of Tsunami Early Warning
- All other existing data and information necessary for the Project
- c) Office space in proper security condition with the following facilities
- Room
- Desks, chairs, lockers, a photocopy machine, a laser printer
- Air conditioners, electric outlets, a telephone facility, a facsimile machine and LANs connecting the outside
- d) Running expenses
- Power, telephone and water fees for office work
- Photocopy papers and toner for the photocopy machine and the printer
- (6) Input from the Japanese Government

(Number and qualification of Japanese experts, training - in Japan and in-country courses, seminars and workshops, equipment. etc)

- A short-term expert of Tsunami Early Warning System (10MM)
- A long-term expert of Tsunami Early Warning System (15MM)
- Counterpart training in Japan (4M/M)
- Equipment of the Tsunami Early Warning System

7. Implementation Schedule Month Year -- Month Year

June 2007 to March 2009

A desirable schedule of each major work item is as follows.

| | Work frem | 7 | 2 | 3 | 4 | 5. | G | _ | A | 9 1 | 0 1 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | :8 | 10 | 20 | 21 | 72 | Z 3 | 24 |
|---|--|---|---|---|---|-----|---|------|------|------|-----|----|----|----|----|----|----|-----|-----|----|----|----|----|------------|-----|
| 1 | Preparous | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Setting-up of Taunami data processing system (Mardwale and accessories) | | [| | | | | | | | | | | •• | | | | - | | | | | | • | 7 |
| 3 | Improvement of exiculation method of magnitude in Europutike Processing and Analyzing System | | ĺ | | | ; | | | | **** | • • | - | | | | | | * . | . • | | | | | •• | *** |
| 4 | Installation and operation of Empirical Taunam' Analyzing System | | | | } | | | | | | | | | | | | | | | | | | | | |
| 5 | Assistance of establishment of Yoursent simulation database dance by ITB | | (| | | | | | | Ш | D | | • | | | | | | | | | | | | |
| 8 | instatiotion, operation, and expersion of Qauntitative Taunami Analyzing System | | | | | - 1 | | ELS. | | | | | | | | | | | | | | | | | |
| 7 | Preparation of eperation of Trunsmi Early Warning System | | | | | | | • | 2.10 | | - | - | : | | | | | | | | | | | | |

8. Implementing Agency (Budger, staffing etc)

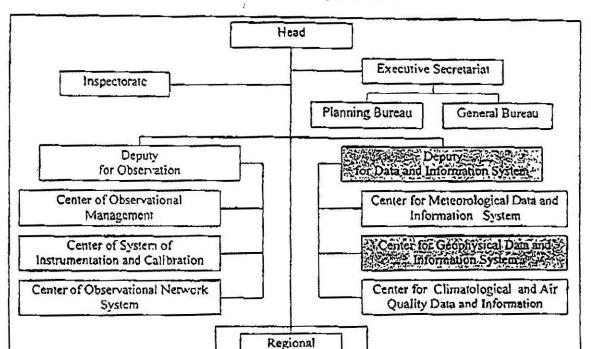
(1) Role

Meteorological and Geophysical Agency (BMG) is a government organization operating directly under the President of the Republic of Indonesia. BMG should function to formulate national policy, coordinate related activities such as observation, data processing, analysis, and providing services in the filed of meteorology, climatology, air quality, and geophysics.

It is mainly responsible for monitoring meteorological phenomena round the clock, and providing weather information, including warning to concerned agencies and mass media, for disaster mitigation, socio-economic activities, safety of transport, agricultural production.

Presently, BMG should enhance its capability on earthquakes and tsunami since the Ministerial decree stipulates its major role on the operational component of Tsunami Early Warning System as mentioned in section "5. Background (2) Government's development policy for the sector".

(2) Organization



Office/Station

Center of Education

and Training

The organization chart of BMG is shown in the figure below.

(3) Staff

There is a staff of 613 working in the head office, and other 3,412 in 10 regional offices, as well as 120 meteorological stations, 31 geophysical stations, 21 climatologic stations, and 1 global atmosphere watch station.

Center of Research

and Development

Under the Deputy for Data and Information System, there are 110 staffs, consisting of 10 officers, 10 administrative staffs, 6 IT engineers, 74 engineers of geophysics, and 10 non-earthquake (Isunami) engineers.

(4) Budget

The budget of BMG is as follows.

| | | 10000 | | Un | it 1,000 Rp. |
|---------------------------------|--------------|---|---|-------------|--------------|
| Year | 2003 | 2004 | 2005 | 2006 | 2007 |
| Total | 129,97(1,994 | 204,466,359 +40,000.000 (Supplementage) | 252.837.100 +50.000.000 (Supplementage) | 536.514.700 | 657.075.132 |
| For projects related to Tsunami | | | 28,000,000 | 90,000,000 | 72,000,000 |

9. Related Activities

(Activities in the sector by the recipient government, other donors and NGOs)

As mentioned in section "5. Background of the Project (4) Existing development activities in the sector", BMG is carrying out the following activities in order to complete the Tsunami Early Warning System.

- Installation of earthquake monitoring equipment (seismic sensors, accelerometers, and tremors) and data transmission facilities
- Installation, operation, and maintenance of Earthquake Processing and Analyzing facilities, together with training

| CTBTO | 6 Seismic Sensor (included 1 UCSD) | | | | | | | |
|---------------------------|---|--|--|--|--|--|--|--|
| | Telecommunications | | | | | | | |
| | Software for Processing | | | | | | | |
| | Training | | | | | | | |
| | Maintenance | | | | | | | |
| Germany | 21 Seismic Sensor | | | | | | | |
| 0 - 50 0 0 | 21 Accelerometer | | | | | | | |
| | 10 GPS - Buoys | | | | | | | |
| | 10 GPS - Tide gauge | | | | | | | |
| | Set for Telecommunication | | | | | | | |
| | Processing Facilities | | | | | | | |
| | Training in Germany and Indonesia | | | | | | | |
| | Maintenance | | | | | | | |
| NIED-Japan | 15 Seismic sensor | | | | | | | |
| = 8 | 15 Accelerometer | | | | | | | |
| | Processing Facilities | | | | | | | |
| | Training in Japan and Indonesia | | | | | | | |
| • | Maintenance | | | | | | | |
| France | Simulation System of Network Capability | | | | | | | |
| | Installation of 2 Tremors | | | | | | | |
| | Upgrade of the existing French Network | | | | | | | |
| | Training | | | | | | | |
| China | 10 Scismic Sensor | | | | | | | |
| | 10 Accelerometer | | | | | | | |
| | Set for Telecommunication | | | | | | | |
| | Processing Facilities | | | | | | | |
| roccolor sweet also gover | Training in China and Indonesia | | | | | | | |
| Government of | 108 Seismic Sensor | | | | | | | |
| Indonesia | 448 Accelerometer | | | | | | | |
| (BMG) | 10 Processing Facilities for the regional centers | | | | | | | |
| | Telecommunications | | | | | | | |
| | Infrastructure | | | | | | | |

| | |
|-------------|-----------------|
| | Training |
| | Maintenance |
| | 1.1dill.c.zoxcc |

Through the above activities. BMG will establish at an early date a part of Tsunami Early Warning System, able to produce input data to be used for this Project.

10. Gender Consideration

(Any relevant information of the project from gender perspective)

There is neither adverse effect nor unevenness of beneficiaries in terms of gender.

11. Environmental and Social Considerations

(Please fill in the attached screening format)

There is no adverse effect related to implementation of the Project from environmental and social viewpoints, since the activities are limited in capacity development and installation of system concerned (hardware and software) to the BMG head office.

12. Beneficiaries

(population for which positive changes are intended directly and indirectly by implementing the project)

The whole population of Indonesia (approximately 207 million) will benefit form the Project. Among them, tens of millions of people who live in coastal area, suffering from possible tsunami disasters are direct beneficiaries. The rest of the population, who will suffer from economical, social, and psychological damages by possible tsunami disasters affecting Indonesia, will be indirect beneficiaries.

13. Security Conditions

There is no particular security problem in Jakarta where the Project activities will be carried out.

14. Others