#### Japanese Grant Aid Project

"The Project for Improvement of Nationwide Airport Safety and Security"

#### 1. Project Description

Myanmar has 69 civil aviation airports, and at the time of planning this project, 32 were in operation. Myanmar has the largest land area (approximately 680,000 km²) in the continent of Southeast Asia, and the distance between its northern and southern borders is approximately 2,100 km. Subsequently, demand for domestic flights is increasing steadily, and the importance of the aviation sector will further increase. The number of passengers and the amount of cargo for international flights are also rapidly increasing, particularly at Yangon International Airport. While the Myanmar government has been developing facilities and equipment based on the international standards of the International Civil Aviation Organization (hereinafter referred to as "ICAO"), it has lagged in the development of air navigation safety facilities and airport security equipment to prevent terrorism required for the safe operation of aircraft.

As many local airports in the country do not yet have sufficient radio facilities, flights with low-precision instruments and visual observation are carried out, making it impossible to respond to sudden changes in weather and other situations. In addition, even at the country's international airports, safety inspections have insufficient inspection systems for explosives. At the local airports, inspection equipment has not been installed, or if it has been installed the equipment is old-fashioned with low detection capability. Amid the sharp increase in the demand for aviation, the government is working to improve its air navigation safety facilities and airport security, making it an urgent issue.

Against this background, this project was implemented with the aim of ensuring the safety of aircraft navigation and landing at destination airports, and developing countermeasures against aviation accidents and terrorists by developing air navigation safety facilities to meet the ICAO safety standards at major airports in Myanmar, thereby contributing to the improvement of safety in the aviation sector of the country.

Grant Limit/Actual Grant Amount	1,233 million yen/1,232 million yen
Exchange of Notes Date /Grant Agreement Date	March 2013/March 2013

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<sup>&</sup>lt;sup>1</sup> The ex-post evaluation of this project is published as a summary due to security reasons. Though the description of the summary reflects the original report written by the external evaluator, some parts which are unsuitable for publishing are left out or edited by JICA Evaluation Department. Please contact JICA Evaluation Department for any questions related to the content.

Executing Agency	Department of Civil Aviation (DCA), Ministry of Transport and Communications
Project Completion	April 2015
Target Area	Six major airports (Yangon, Mandalay, Nyaung-U, Heho, Thandwe, and Dawei)
Main Contractor	Sumitomo Corporation
Main Consultants	Nippon Koei Co., Ltd. and Japan Airport Consultants, Inc.
Preparatory Survey	June 2012 to March 2013
Related Projects	JICA, "The Project for Capacity Development on CNS/ATM Systems" (September 2014 to August 2018)

### 2. Outline of the Evaluation Study

#### 2.1 External Evaluator

Yusuke Hasegawa, International Development Center of Japan, Inc.

#### 2.2 Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule.

Duration of the Study: November 2018–October 2019

Duration of the Field Study: February 12–March 10, 2019

#### 3. Conclusion

This project has been highly relevant to Myanmar's development plan and development needs, as well as Japan's ODA policy. Therefore, its relevance is high. Although the equipment was provided largely as planned and the project cost was at a level commensurate with the outputs as planned, the project period exceeded the plan due to the failure in the initial bidding process and delays in the installation of some of the equipment. Therefore, the efficiency of the project is fair. Regarding the project effects, some of the expected effects have not been achieved as some instruments have not been operationalized. As for the project impacts, an interim outcome of the improved aviation safety was identified at the time of the ex-post evaluation. Therefore, the effectiveness and impacts of the project are fair. Some minor problems have been observed in terms of the establishment of operation and maintenance techniques, operations, and maintenance expenditures, and the current status of operation and maintenance. Therefore, the sustainability of the project effects is fair. In light of the above, this project is evaluated to be partially satisfactory.

#### 4. Recommendations (undisclosed)

#### 5. Lessons Learned (partially undisclosed)

## (1) Confirming information distribution and communication routes within the executing agency when two or more divisions are in charge of the equipment

A range of equipment was procured by this project over three areas: air navigation safety, airport safety, and airport security, and the project sites where the equipment was installed were divided into six airports in addition to the executing agency headquarters. Several divisions are responsible for the instruments by type within the executing agency. However, it was recognized that there were some problems with the sharing of information on the operation status of the equipment within the executing agency. Therefore, when there are a large number of procured instruments as well as responsible divisions in the executing agency, as in this project, it is important to encourage the executing agency to ensure a mechanism for effectively communicating and sharing information between the lead division for the project and the other responsible divisions in the project planning and the implementation stages.

# (2) <u>Confirming the after-sales service system of manufacturers and distributors and promoting indirect support to the executing agency after delivery</u>

In the project planning and implementation (procurement) stages, the availability of spare parts for procured equipment after the expiry of the warranty period and the after-sales service providing system by the local agents should be fully considered. However, for equipment with low versatility and systems using advanced technology that are not introduced widely in the concerned country, the service provision system may be vulnerable. Although it is assumed that the executing agency is responsible for the maintenance of the equipment after the warranty period has expired, from the viewpoint of sustaining the effectiveness of Japan's cooperation project, it is desirable for JICA or the project consultant to encourage the project contractor and suppliers to provide indirect support for the executing agency from the time of project implementation, so that the executing agency can receive services from the manufacturers or agents in a timely manner.