

MEMORANDUM  
CONCERNING  
COOPERATION ON DISASTER REDUCTION AND PREVENTION  
BY SPACE TECHNOLOGY AND GEOGRAPHIC INFORMATION SYSTEM  
AMONG  
DIRECTORATE OF WATER RESOURCES (WRD) –  
MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT OF VIETNAM  
AND  
JAPAN AEROSPACE EXPLORATION AGENCY  
AND  
VIETNAM ACADEMY OF SCIENCE AND TECHNOLOGY

Directorate of Water Resources - Ministry of Agriculture and Rural Development (hereinafter referred to as “WRD”), Japan Aerospace Exploration Agency (hereinafter referred to as “JAXA”) and Vietnam Academy of Science and Technology (hereinafter referred to as “VAST”), hereinafter individually referred to as “Party” and collectively referred to as “Parties”,

CONSIDERING that WRD and VAST are interested in application of remote sensing and geographic information system (GIS) technology to disaster reduction and prevention in Vietnam, and JAXA has made efforts to cooperate on application of remote sensing and GIS technology in the South-East Asian and Pacific regions,

EXPECTING that Vietnam’s VNREDSat satellite series’ will join the Sentinel Asia Satellite Constellations as a Data Provider Node of Sentinel Asia,

RECALLING that the Parties recognize benefits to exchange satellite data owned by each Party through Sentinel Asia as necessary when disaster happens,

HAVING regard to their wishes to cooperate on application of remote sensing and GIS technology for disaster reduction and prevention;

Have reached the following views:

1. The Parties cooperate and make efforts on the following activities;
  - a) Development of a database system by past satellite imageries of Vietnam for disaster prevention.  
JAXA will provide satellite data through Sentinel Asia Step 3 activities for the database system of which WRD is in charge with technical support of VAST.
  - b) Exchange of satellite data when disaster happens.  
JAXA will provide satellite data owned by JAXA, such as, including but not limited to, ALOS-2 data for WRD and/or VAST upon request of WRD and/or VAST through Sentinel Asia. VAST will provide satellite data owned by VAST, such as, including but not limited to, VNREDSat, for Sentinel Asia Step 3 Activities..

- c) Strengthening the capacity of application of remote sensing and GIS technology for disaster prevention in Vietnam.

WRD and VAST will enhance capability of remote sensing and GIS technology for disaster prevention by hosting training opportunities with technical trainings provided by JAXA.

- d) Development of programs and projects on application of remote sensing and GIS technologies for disaster prevention.

WRD and VAST will develop programs and projects on application of remote sensing and GIS technologies for disaster prevention in Vietnam. JAXA will support WRD and VAST by the effort of a), b) and c) for the achievement of their projects.

2. Any activities that might be initiated through this Memorandum will comply with export controls in force and each Party's data policy. A separate agreement will be concluded when the Parties exchange satellite data to ensure terms and conditions of each Party's data policy.
3. The Parties respectively appoint the following personnel as the points of contact for implementing the cooperation under this Memorandum.

WRD Point of Contact:

Mr Dang Quang Minh

Acting Director

Disaster Management Center

Directorate of Water Resources

Phone number: +84-4-37335805

Fax: +84-4-37336647

Email: [trungtamptgntt@dmc.gov.vn](mailto:trungtamptgntt@dmc.gov.vn)

JAXA Point of Contact:

Mr. Michio Ito

Manager

Space Applications for Disaster Management

Space Applications and Operations Center

Phone number: 81-50-3362-7259

Fax number: 81-30-5209-3208

Email: [ito.michio@jaxa.jp](mailto:ito.michio@jaxa.jp)

VAST Point of Contact:

Mr Doan Minh Chung

Director

Space Technology Institute

Phone number: +84 - (0)912354972

Fax number: +84 - 4 - 37914622

Email: [dmchung@sti.vast.vn](mailto:dmchung@sti.vast.vn) / [chung\\_sti@yahoo.com](mailto:chung_sti@yahoo.com)

4. This Memorandum creates no legal nor financial obligation.
5. The Parties retain the right to release public information regarding their own activities under this Memorandum. The Parties will coordinate each other, as appropriate and in advance, with respect to any release to the public of information which relates to the other Party's activities under this Memorandum.
6. The Parties may conclude an Implementation Agreement to define terms and conditions for implementation of activities under the Memorandum as necessary.
7. The Memorandum is effective from date of signing and continue in three years. The Parties may modify this Memorandum upon their mutual written consent. The Parties may terminate this Memorandum at any time by giving a six month written notice to the other Parties.

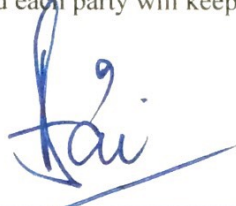
The Memorandum will be made into three copies and each party will keep one copy in English.



For  
Mr. Shizuo Yamamoto  
Vice President  
Japan Aerospace Exploration Agency

Date: *Sep 1, 2015*

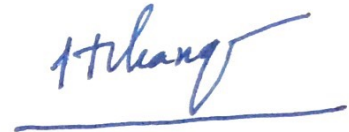
Place:



For  
Prof. Dr. Duong Ngoc Hai  
Vice president  
Vietnam Academy of  
Science and Technology

Date:

Place:



For  
Dr. Hoang Van Thang  
Vice Minister – Director General  
Directorate of Water Resources  
Ministry of Agriculture  
and Rural Development

Date

Place: