



## Forest Governance Initiative

### Introductory Session:

### “JICA-JAXA Forest Early Warning System in the Tropics (JJ-FAST)” for Better Forest Management in the Congo Basin

Libreville, July 20, 2017

at MRV CONGO BASIN WEEK

#### **Background**

Forests are vital for all life on earth. Forests provide rich biodiversity, food and water, foster culture, and support people’s livelihoods. Recently, the role of forests in terms of climate change has been highlighted worldwide. The forestry sector including deforestation accounts for more than 10 percent of total CO<sub>2</sub> emissions. Everyone affirms the importance of forests. However, based on FAO statistics, there was a 129 million hectare forest net loss between 1990 and 2015. The loss of tropical forests continues unabated due to agricultural expansion, wood extraction, infrastructure expansion, illegal logging and other factors; implementing measures to stop such losses is a global priority. Satellite technology has been effective and indispensable for forest monitoring in recent years, and several countries and international organizations have developed systems and tools to monitor forests.

The Japan International Cooperation Agency (JICA) and Japan Aerospace Exploration Agency (JAXA) announced the **Forest Governance Initiative** (see Annex 1) at the UNFCCC COP 21 in Paris in December 2015. The initiative has been creating a new **JICA-JAXA Forest Early Warning System in the Tropics (JJ-FAST)** (see Annex 2) that tracks deforestation and forest loss with JAXA’s Advanced Land Observing Satellite-2 (ALOS-2). JJ-FAST will constantly watch for deforestation and forest loss in tropical regions of the globe and provide open access to its findings. The system using ALOS-2 can monitor forest cover changes in tropical forests despite the cloud cover typically found in such areas. With resolution of up to 50 meters, the JJ-FAST findings will be updated about every six weeks on average to the JJ-FAST website.

The initiative also promotes the capacity development of personnel for sustainable forest management in developing countries through training courses in Japan and regional seminars on JJ-FAST and other measures which can be used for forest monitoring. The initiative spreads knowledge about good practices on forest conservation around the world through the JJ-FAST web-site and international conferences.

**It is expected that global efforts, including those through the Forest Governance Initiative, will help countries with serious deforestation issues, and in the long term, help control the reduction of forests as an effective measure against climate change.**



## **Objectives**

This session aims to introduce the Forest Governance Initiative and the JICA-JAXA Forest Early Warning System in the Tropics (JJ-FAST) to the COMIFAC countries. In this session, it is also expected that the participants exchange their views on how COMIFAC countries can enhance forest management system using JJ-FAST.

## **Tentative Agenda**

### Presentations

Time	Title	Speaker
9:30-9:50	JICA-JAXA Partnership for Forest Conservation and Climate Change Countermeasure: Forest Governance Initiative	Mr. Takahiro Morita, Senior Deputy Director General, Global Environment Department, JICA
9:50-10:30	Deforestation Monitoring System: JICA-JAXA Forest Early Warning System in the Tropics (JJ-FAST)	Dr. Masato Hayashi, Associate Senior Researcher / Dr. Izumi Nagatani, Researcher of Earth Observation Research Center, Space Technology Directorate I, JAXA
10:30-10:50	Development of a logging monitoring system using PALSAR2	Dr. Hiroshi Sasakawa, Chief Engineer, JAFTA
10:50-11:30	Q and A / Discussion	Moderator



## Annex 1

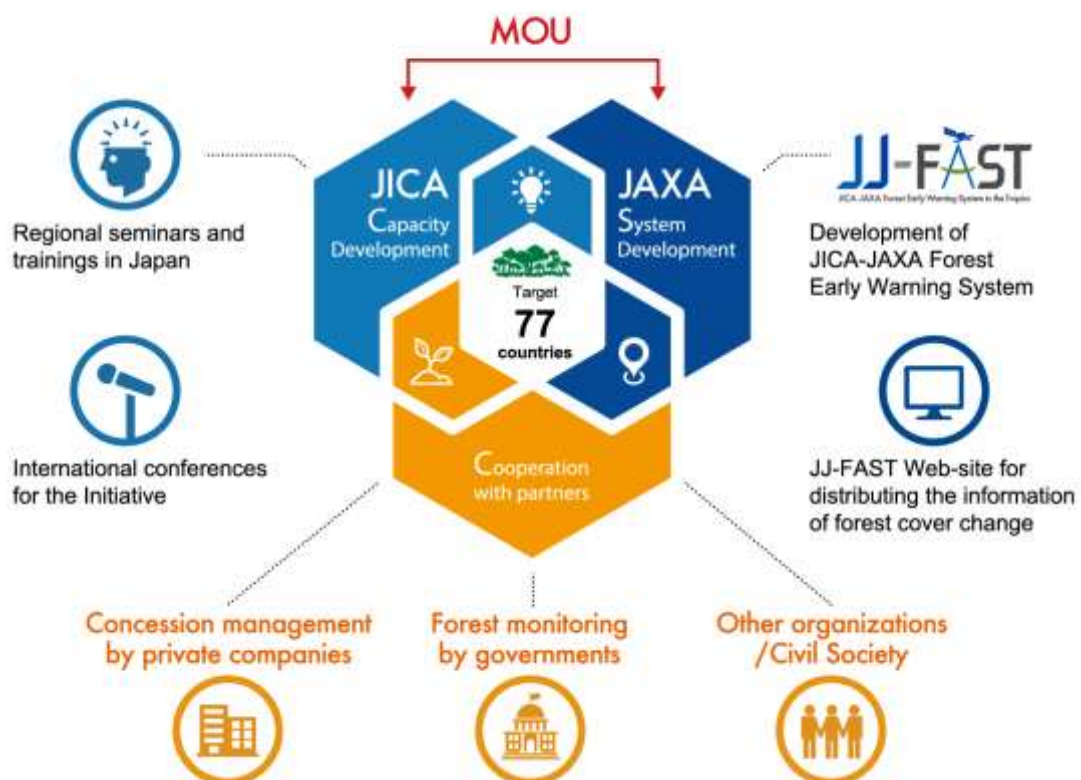
### Forest Governance Initiative

**Forest can change the world** – The Forest Governance Initiative works to use satellite technology and multi-stakeholder partnerships to contribute to the global tropical forest, biodiversity conservation and climate change mitigation.

JICA and JAXA launched the Forest Governance Initiative at UNFCCC COP 21 in Paris in 2015. JICA and JAXA have committed to the initiative through developing “JICA and JAXA launched the JICA-JAXA Forest Early Warning System in the Tropics (JJ-FAST)”, promoting capacity development and spreading good practices on forest conservation to fight against deforestation in developing countries and global climate change.

JICA and JAXA call development partners and private companies to join the initiative to work together to change the world for the better.

### Outline of Forest Governance Initiative





## Annex 2

### JICA-JAXA Forest Early Warning System in the Tropics: JJ-FAST

#### Monitor global tropical forests with ALOS-2

JICA and JAXA launched the JICA-JAXA Forest Early Warning System in the Tropics (JJ-FAST) in November 2016 as their commitment under the Forest Governance Initiative, which was announced at UNFCCC COP21 in Paris in 2015. JJ-FAST is a web-based system using JAXA's ALOS-2 to monitor tropical forests in 77 countries every 1.5 months and release deforestation data, even in the rainy season. Users can easily access the data for deforested areas from PCs and mobile devices and download the data.

#### Advantage of the PALSAR-2 aboard ALOS-2



The state-of-the-art L-band Synthetic Aperture Radar-2 (PALSAR-2) aboard ALOS-2, which is active microwave radar using the 1.2GHz frequency range, will, in responding to society's needs, have enhanced performance compared to the DAICHI/PALSAR. The PALSAR-2 can observe day and night around the clock.

#### Uniqueness of the JJ-FAST

- **Any time of day or night** Since other sources of light such as the sun are unnecessary, SAR present the advantage of providing satellite images regardless day or night.
- **All-weather** The L-band frequency for transmitting and receiving microwaves is less affected by cloud cover and rain.
- **Land surface observation** L-band microwave can reach to the ground partially penetrating through vegetation to obtain information about the current vegetation and ground surface.

#### Target Countries

Area	Country
Latin America	<b>South America</b> 9 countries Bolivia, Brazil, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Venezuela
	<b>Central America and the Caribbean</b> 9 countries Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Trinidad and Tobago
Africa	<b>West Africa</b> 12 countries Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Nigeria, Senegal, Sierra Leone, Togo
	<b>East Africa</b> 12 countries Burundi, Djibouti, Ethiopia, Kenya, Madagascar, Rwanda, Seychelles, Somalia, Sudan, South Sudan, Tanzania, Uganda
	<b>Central Africa</b> 8 countries Cameroon, Central African Republic, Chad, Republic of Congo, Democratic Republic of Congo, Equatorial Guinea, Gabon, Sao Tome and Principe
	<b>South Africa</b> 11 countries Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Republic of South Africa, Swaziland, Zambia, Zimbabwe
Asia	14 countries Bangladesh, Bhutan, Brunei, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Sri Lanka, Thailand, Viet Nam
Oceania	2 countries Papua New Guinea, Solomon

#### JJ-FAST Web-site



<http://www.eorc.jaxa.jp/jjfast/>

