

# RAMP

Road Asset Management Platform

## -Overview of road asset management platform-

### What is the Road Asset Management Platform?

The Japan International Cooperation Agency (JICA), an independent administrative agency, has implemented a technical cooperation project to strengthen the capacity to maintain and manage road infrastructure in developing countries and is training core human resources who will lead the road administration in developing countries. In order to utilize Japan's experience and knowledge, we have established the road asset management platform (RAMP) with the aim of establishing preventive-maintenance-type ways of maintaining and managing road infrastructure and realizing effective and efficient road management based on asset management methods.

### Conceptual Scheme of Road Asset Management Platform

#### Activity goals

The goal to our activity is to solve the issues of maintaining and managing road infrastructure in developing countries. With the knowledge we gather from inside and outside the country and through the following initiatives, we aim to train road administrative human resources to establish road management in developing countries.

#### 01 Technical Cooperation Project for Road and Bridge Maintenance and Management

- Localize manuals and support institutionalization
- Trial introduction by pilot project and local demonstration
- Establish PDCA cycle  
→ Develop the base for Local Industry/government/Academia collaboration

#### 02 Assignment-based training programs

- Acquiring knowledge about latest & most advanced technology  
→ Interact with technical system in Japan (industry/government/academia)
- Knowledge sharing among participating countries  
→ Cultivate mutual cooperating environment

#### 03 Long Term Foreign Students

- Acquiring technologies from basic to advanced
- Universities and graduates network  
→ Aims to become mediator & ultimately become the leader of road administration in long term

#### 04 Other Activities

- Promoting private-level technical cooperation
- Academic-industry cooperation
- Achievement assessment of road asset management
- Introduction of local government initiative
- Technical training of Japanese engineer



Technical cooperation and global knowledge consolidation. Disseminate information through various activities under industry/government/academia collaboration.



### Road Asset Management Platform

MLIT /Local Government

JSCE

Partner Univ.

#### MLIT

- Overseas expansion strategy
- Japanese Congress for Infrastructure Management (Overseas market development forum)

#### JSCE

- Memorandum of cooperation with JICA
- Inheritance of SIP infrastructure technology
- Related sub-committees

#### Private Company

- Japan Association of Asset Management
- Expressway companies
- Private infrastructure technology

# RAMP

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#### Local Government

- Nagasaki prefecture
- Gifu prefecture
- City of Kimitsu, Chiba prefecture
- City of Tamana, Kumamoto prefecture
- City of Niigata, Niigata prefecture etc.

#### Partner University

- Hokkaido University
- University of Tokyo
- Kanazawa University
- Kanazawa Institute of technology
- Gifu University
- Nagasaki University
- Ryukyu University etc.

## National Support Committee

In March 2020, a "National Support Committee" consisting of members from the Japan Society of Civil Engineers and domestic experts was established, with the aim of obtaining technical support and professional/technical advice on the activities of RAMP, in order for it to promote their activity effectively and appropriately. The main activities are as follows

- ☑ Activities related to technical cooperation projects dealing with road infrastructure maintenance and management
- ☑ Activities related to training programs in the field of road traffic
- ☑ Other initiatives related to inspection and diagnosis with private companies, universities, etc. road asset management of national and local governments/aggregation of knowledge

## Main Activities

### Example of technical cooperation project

In Zambia, providing continuous training to bridge engineers was a challenge. Therefore, we have introduced the "maintenance expert training course", a bridge engineer training system implemented by Gifu University, with the aim to establish a sustainable system in which the University of Zambia will take the lead in fostering engineers.

### Assignment-based training(short-term trainee)

Bridge maintenance is more expensive than roads and requires advanced inspection, diagnosis, and repair techniques. In this training, lectures and practical training based on experience and knowledge from Japan are conducted to realize planned budget allocation in developing countries, strengthening of daily maintenance management systems, systematic improvement of technical capabilities, introduction of preventive maintenance, etc. In addition, we conduct monitoring activities on site in order to confirm proficiency level after the training and improve the contents of the training in the following year.

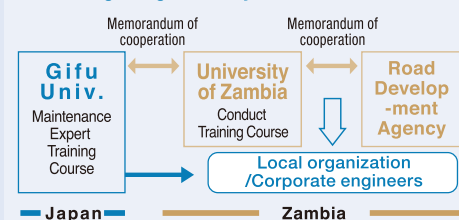
### International students(long-term trainees)

In order to develop core human resources related to road asset management technology, staff and engineers from ministries and agencies in each country enroll in Japanese universities (as master's and doctoral students) and are provided with research and development opportunities. Such students are also given the opportunity to learn the technologies of domestic companies and organizations through internships. After returning to their home, they are expected to play an active role as core human resources in each country, including involvement in ODA projects such as technical cooperation projects, as well as activities that contribute to the transfer of maintenance and repair technologies from Japan.

### Example of Road Asset Management achievement assessment

With advice from the Japan Asset Management Association(JAAM), we are studying methods for assessing Road Asset Management(Road AM) achievement in each country. By conducting a achievement assessment, you can see the maintenance capabilities of each country on the radar chart and understand the challenges of Road AM retention. With extensive experience in technical cooperation projects, we are primarily considering pavements and bridges. But in the future, we aim to cover fields such as earthworks(slopes)and tunnels as well, so that it can also be used in Japan. Each category is evaluated on a 1-to-5 scale, with level 1 being the initial stage and level 5 being the best practice, and in developing countries we are aiming to reach level 3 in all categories as the first objective.

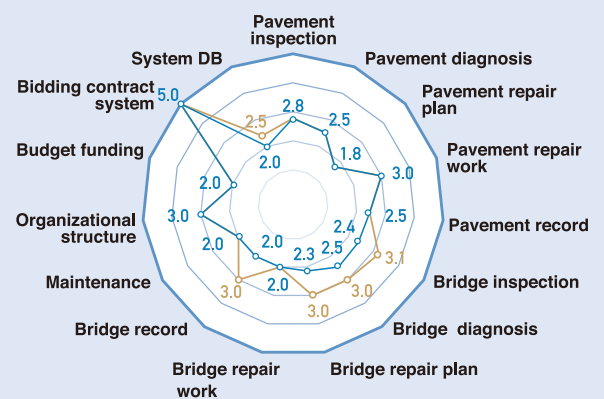
#### Creation of a system for sustainable training of bridge engineers by local universities



Factory inspection



Training for bridge inspection



※Blue line is current, orange line is what is projected in 5 years



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