

2022.01.19

Японы Олон Улсын Хамтын ажиллагааны байгууллага “ЖАЙКА”-с, 2022 оны урт хугацааны сургалтын хөтөлбөрийн талаарх мэдээллийг хүргүүлж байна.

1. Сургалтын нэр:

“Авто замын чанарын менежментийн хүний нөөцийн хөгжил”

2. Магистрын хөтөлбөрийн хугацаа:

2023 оны 3 сар – 2025 оны 3 сар (боломжит богино хугацаа)

2023 оны 3 сар – 2025 оны 9 сар (боломжит урт хугацаа)

***Шаардлагатай нөхцөлд 6 сарын хугацаанд судлаач оюутнаар суралцана.

Магистрын хөтөлбөр 2 жил

Докторын хөтөлбөрийн хугацаа:

2023 оны 3 сар – 2026 оны 3 сар (боломжит богино хугацаа)

2023 оны 3 сар – 2026 оны 9 сар (боломжит урт хугацаа)

***Шаардлагатай нөхцөлд 6 сарын хугацаанд судлаач оюутнаар суралцана.

Докторын хөтөлбөр хөтөлбөр 3 жил

3. **“ЖАЙКА”-ын төлөөлөгчийн газарт материал ирүүлэх хугацаа: 2022.02.25**

4. Ирүүлэх материал:

Доорх материалын эх хувь 1, хуулбар 2 хувь байхыг анхаарна уу.

- Бүртгэлийн маягт
- Зорилго тодорхойлсон бичвэр (загвар чөлөөтэй)
- Судалгааны төлөвлөгөө (загвар чөлөөтэй)
- Хөтөлбөрөөс хамаарч бакалавр болон магистрын дипломын нотариатаар баталгаажуулсан хуулбар болон англи хэл дээрх баталгаат орчуулга
- Дипломын хавсралт материалууд (Их Сургуулийн бүх дүн, үнэлгээ орсон байх, англи хэл дээрх баталгаат орчуулга хийлгэсэн байх)
- Хүчинтэй гадаад паспортын хуулбар
- 3x4 хэмжээтэй цээж зургийг бүртгэлийн маягтад наасан байх
- Англи хэлний шалгалтын онооны хуудас (Шалгалтын талаар мэдээллийг 10. Тавигдах шаардлага хэсгээс харна уу.)
- Бүртгэлийн хариу гарсны дараа эрүүл мэндийн гэрчилгээ зэргийг тус тус ирүүлнэ үү.

Хөтөлбөрийн талаар дэлгэрэнгүй мэдээлэл, холбогдог материалыг хавсаргав. Энэхүү сургалтын мэдээллийг 3 хоногийн хугацаанд холбогдох байгууллагуудад хүргүүлж хамтран ажиллахыг хүсье.

Хөтөлбөрт заасан тавигдах шаардлагыг бүрэн хангасан албан хаагчийг нэр дэвшүүлэхийг хүсье. Шаардлага хангаагүй нэр дэвшигчийн материалыг хүлээн авахгүй болно. Хамтын ажиллагаанд талархсан.

“ЖАЙКА”-ын Монгол дахь төлөөлөгчийн газрын дарга Тамүра Эрико

Хувийг:

- Японы ЭСЯ-ны I нарийн бичгийн дарга Ичиока.А
- Зам, тээврийн хөгжлийн яам
- Зам, тээврийн хөгжлийн төв
- НЗДТГ-ын зам, тээврийн салбарын төсөл хөтөлбөрүүдийн удирдагч Б.Одсүрэн
- Шинжлэх ухаан, технологийн Их сургууль
- Монгол Коосэн Технологийн коллеж



Mr. I. BATKHUU
Director General,
Development Financing Department
Ministry of Finance

Dear Sir,

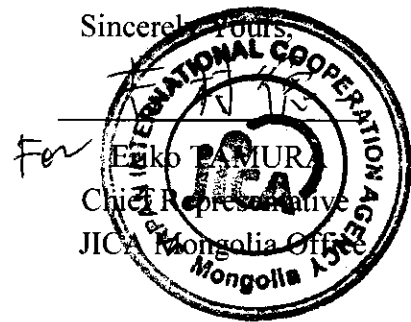
It is my pleasure to inform you that the Japan International Cooperation Agency (JICA) is planning to hold the JICA Long Term Training Program (JFY2022) as briefly described below.

- | | |
|---|---|
| 1.Name of the course | “Core Human Resource Development for Road Asset Management (FY2022)” |
| 2.Duration for Master’s Degree | : From End of March 2023 To End of March 2025 (minimum) - End of Sep. 2025 (maximum)
- 6 Months as a Research Student if necessary
- 2 years as a master’s course student |
| for Doctor’s Degree | :From End of March 2023 To End of March 2026 (minimum)- End of Sep.2026 (maximum)
- 6 Months as a Research Student if necessary
- 3 years as a doctoral course student |
| 3.Deadline at JICA Mongolia Office | :February 25, 2022 |
| 5. Documents for submission | Original 1 set, Copy 2sets |
| (1) Application Form | |
| (2) Statement of Purpose (Free Format) | |
| (3) Research Plan (Free Format) | |
| (4) Undergraduate degree graduation certificate/ Master’s degree completion certificate | |
| • Officially certified copies of the original. | |
| • Written in English or accompanied with official translation in English. | |
| (5) Academic transcript | |
| • Must contain all the grades earned in the university. | |
| • Officially certified copies of the original. | |
| • Written in English or accompanied with official translation in English. | |

- (6) A copy of valid Passport with photo
- (7) ID photo (4cm×3cm) pasted on application form (Original and copy)
- (8) Score of English proficiency examination
See '10. Application Qualifications (4) English Proficiency'
- (9) Health certificate to be submitted after the Selection

Details of the course are described in the original brochure which is named training and dialogue programs. It would be appreciated if you could convey the above information to the authorities concerned **within 3 days after getting this letter**. During the screening process, I highly recommend that you nominate prospective trainees who satisfy "the Nominee Qualifications" described in the brochure. Otherwise, no nominees might be accepted because of unsatisfied qualifications.

Thank you for your kind attention and cooperation.



- cc. Mr. A. ICHIOKA, First Secretary, Embassy of Japan in Mongolia
The Ministry of Road and Transport Development
The Road and Transport Development Center
Mr. Odsuren Badarch, The Project Leader for Road and Transport sector, The Municipality of Ulaanbaatar
Mongolian University of Science and Technology
Mongol Koosen College of Technology



Japan International Cooperation Agency

JICA Knowledge Co-Creation Program (Long-Term Training)

General Information for ALL Applicants on Core Human Resource Development for Road Asset Management (JFY2022)

国別研修（長期）
「道路アセットマネジメント中核人材育成プログラム」

This information pertains to one of the Japan International Cooperation Agency (JICA)'s Knowledge Co-Creation Program (Long-Term Training). This program will be implemented as part of the Official Development Assistance of the Government of Japan based on bilateral agreement between both governments.

1. Background

In Japan, amid the aging of infrastructures, emerging risk of a serious accident and the increase in maintenance and repair expenditures are topics of concern. Currently, infrastructures are being constructed across developing countries; however, maintenance has already become a big issue. Systematic infrastructure management utilizing new technologies is essential both for preventing accidents based on preventive maintenance system and minimizing life cycle cost of infrastructures under the conditions of the tight financial grounds and the decreasing number of skilled engineers. Particularly, technologies that utilize the world's most advanced ICRT (Information and Communication Technology, & Information and Robot Technology) are expected to create new business opportunities in the existing infrastructure maintenance market and to offer business expansion opportunities into developing countries that will face similar problems in the near future. Not only developed countries but also developing countries will improve the standard of maintenance by using low-cost preventive maintenance while stressing the necessity to match the needs of infrastructure maintenance with the seeds of technical development, and developing new technologies into more attractive technologies that can be used on-site. Infrastructures should function for several decades. We aim at contributing to regional revitalization, as well as maintaining the important internal infrastructures to high standard while backing up a variety of regional economic activities. Our responsibility to the future is to create an infrastructure information platform and to pass on the infrastructures that can be used safely with a minimum maintenance burden to the next generation.

Road Asset Management Platform (RAMP)

https://www.jica.go.jp/english/our_work/thematic_issues/transportation/ramp/index.html

2. Objectives

The objective of the Core Human Resource Development for Road Asset Management is to foster young leaders of governmental officials, educators and researchers who contribute to the road asset management in developing countries. This program offers opportunities for such personnel to study at graduate courses for master's degree / doctorate degree in Japanese graduate schools as international students (hereafter referred to as participants).

Beyond acquisition of skills and knowledge, this program also aims to have the participants understand and familiarize themselves with Japanese culture and systems. The expected outcome of the program is to develop a network of potential contributors to the road asset management in the development countries.

3. Program Outline

- (1) Program Title: **Core Human Resource Development for Road Asset Management**
- (2) Language of the Program: **English**
- (3) Contents of the Program

<p>Research Student Program (6 months)</p>	<p>Research students are part-time students who utilize their time to prepare for the entrance examination of graduate course students. Research students are able to participate in lectures, receive instruction from the supervising professors and make use of university's facilities.</p> <p>The maximum period for being a research student is six months in principle. Participants are required to prepare for entrance examination of the respective graduate course.</p> <p>Note:</p> <ol style="list-style-type: none"> 1. Participants who failed entrance examination will be required to return to their home countries. 2. Necessity of research student program will be considered based on interviews with professors of respective Japanese universities.
<p>Graduate Course Program (2 or 3 years)</p>	<p>Master's degree course / Doctorate degree course</p> <ul style="list-style-type: none"> - Lecture and practice - Research works for the thesis - Field research in Japan and/or home country <p>* Field research is to be planned in accordance with the research theme and upon consultation with the supervising professor.</p>

4. Duration

<p>Master's Degree Course Participant</p>	<p>From: End of March 2023</p> <p>To: End of March 2025 (minimum) – End of Sep. 2025 (maximum)</p> <ul style="list-style-type: none"> - 6 Months as a Research Student if necessary - 2 years as a master's course student
<p>Doctorate Degree Course Participant</p>	<p>From: End of March 2023</p> <p>To: End of March 2026 (minimum) – End of Sep. 2026 (maximum)</p> <ul style="list-style-type: none"> - 6 Months as a Research Student if necessary - 3 years as a doctoral course student

5. Target Countries

Laos, Cambodia, Indonesia, Philippines, Myanmar, Mongolia, Bhutan, Nepal, Bangladesh, Pakistan, Kyrgyzstan, Kenya, Ethiopia, Zambia, Ghana, Madagascar, Egypt, Chile, El Salvador

6. Target Participants

This program is designed for the following two types of personnel.

Governmental Officials (Technocrats)	Technocrats who take part in policy making and administration related to road asset management in central/regional government, governmental research institutions or other related public organizations in the road asset management sector.
Educators/ Researchers	Individuals who are responsible for education and research in the road asset management sector in Higher Education and research institutions in target countries.

Candidates are to be nominated by Japanese related Organizations and Universities to further the program's aim of development of the road asset management sector in each country.

7. Numbers of Participants

Total Number of Participants will be determined around August 2022.

8. List of Japanese Universities for Former Participants

The following is a list of universities with enrollment of current and former participants under this program. Host universities for JFY2022 will be determined in the selection process.

- Graduate School of Engineering, Gifu University
http://www.eng.gifu-u.ac.jp/index_e.html
- Graduate School of Natural Science and Technology, Gifu University
<http://gnst.gifu-u.ac.jp/e/>
- Graduate School of Engineering, Hokkaido University
<https://www.eng.hokudai.ac.jp/english/>
- Graduate School of Engineering, Kanazawa Institute of Technology
<http://www.kanazawa-it.ac.jp/ekit/education/curriculum/graduate/index.html#engineering>
- Graduate School of Natural Science and Technology, Kanazawa University
<https://www.nst.kanazawa-u.ac.jp/eng/>
- Graduate School of Engineering, Nagasaki University
<http://www.eng.nagasaki-u.ac.jp/english/index.html>
- Graduate School of Engineering, Osaka University
<https://www.eng.osaka-u.ac.jp/en/>
- Division of Architecture and Civil Engineering, Graduate School of Engineering and Science, Shibaura Institute of Technology
<http://www.constr.shibaura-it.ac.jp/constr/en/>
- Graduate School of Engineering, The University of Tokyo
<http://www.t.u-tokyo.ac.jp/soee/index.html>
- Graduate School of Engineering, Tohoku University
<https://www.eng.tohoku.ac.jp/english/>
- Graduate School of Engineering and Science, University of the Ryukyus
<https://www.tec.u-ryukyu.ac.jp/en/science>

- Master's Course in Civil and Environmental Engineering / Cold Regions, Environmental and Energy Engineering, Kitami Institute of Technology

<https://www.kitami-it.ac.jp/en/>

Research themes of former / current participants

https://www.jica.go.jp/english/our_work/thematic_issues/transportation/ramp/c8h0vm0000f9w3sf-att/ramp_04.pdf

9. Additional Programs for the participants

Every participant need to participate in custom made programs to improve practical abilities, construction of networks, deepen understanding of Japanese Road Asset Management activities through a visit of Japanese local government, highway company, research institute and private company. Internship Program at related institutions also can be provided. All the programs will be held during the vacation period. All programs are carried out in English. Cost to attend the program will be borne by JICA.

10. Application Qualifications and Requirements

Applicants shall satisfy the following requirements:

(1) Nationality	Citizens of the target countries
(2) Age	- Less than forty (40) years of age (as of April 1 st , 2022)
(3) Education	For Master's degree course: <ul style="list-style-type: none"> - At least 16 years of academic background or equivalent - A bachelor's degree For Doctorate degree course: <ul style="list-style-type: none"> - At least 18 years of academic background or equivalent - A Master's degree
(4) Working Experience /Status	Applicants from government sectors / universities/research institutions are required; <ul style="list-style-type: none"> - to have 2-3 years working experience at road asset management sector, and - - to obtain permission for application and securing reinstatement from their current organizations.
(5) English Proficiency	<ul style="list-style-type: none"> - Adequate English proficiency, both in written and oral communication, in order to complete the master's/ doctoral degree. - Some universities require an English proficiency score such as TOEFL, IELTS, or TOEIC. So taking a higher score before its application is desirable. Please also read the '14. Expenses to be borne by JICA' for taking English proficiency exams.

(6) Understanding of the Program	<ul style="list-style-type: none"> - Applicants are required to have clear understanding of the objectives of the Program will to contribute to the development of the road asset management sector in their home countries as well as to strengthen the linkage between their countries and Japan after returning home country.
(7) Others	<p>Applicants must;</p> <ul style="list-style-type: none"> - be both physically and mentally fit for the program, - not be receiving nor applying for scholarship offered by other organizations, <p>Applicants might be required to attend the activities on the weekends/ holidays in unavoidable circumstances (ex. official exam).</p> <p>Female participants are encouraged to apply for the program.</p>

11. Procedures and Required Documents for Application

Each applicant is required to submit the following documents by the deadline set by JICA Office in the applicants' country.

Application Documents	<ol style="list-style-type: none"> (1) Application Form consists of; <ul style="list-style-type: none"> • Personal Information • Educational Background • Work Experiences (2) Statement of Purpose (Free Format) (3) Research Plan (Free Format) (4) Undergraduate degree graduation certificate/ Master's degree completion certificate <ul style="list-style-type: none"> * Officially certified copies of the original. * Written in English or accompanied with official translation in English. (5) Academic transcript <ul style="list-style-type: none"> * Must contain all the grades earned in the university. * Officially certified copies of the original. * Written in English or accompanied with official translation in English. (6) A copy of valid Passport with photo (for checking nationality, name, sex, and date of birth. National ID and birth certificate are acceptable if you do not have valid Passport. Certified English translation must be attached if ID is not written in English) (7) ID Photo (8) Score of English proficiency examination See '10. Application Qualifications, (4) English Proficiency' (9) Health certificate to be submitted after the Selection
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12. Application Period

A series of documents shall be submitted to JICA office in your country by the end of March, 2022.

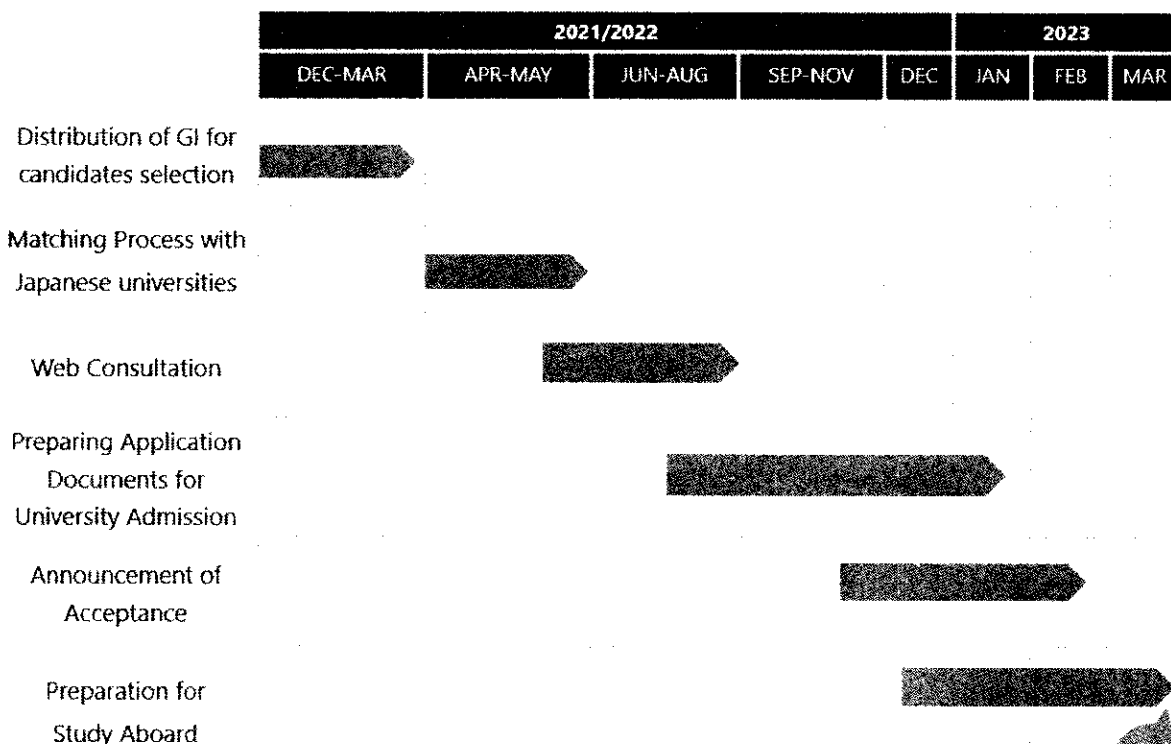
13. Selection Procedures

* The reasons for disqualification on each selection procedure will NOT BE DISCLOSED.

Selection processes are planned as follows despite the possibility of changes:

- By the end of March 2022: Submit candidate information to JICA office (See '11. Application Documents' for more details)
- April 2022: JICA headquarters will share candidate information with prospective universities, and each supervisor will consider accepting candidates
- May 2022: Pre-screening will be held based on candidate information (tentative decision of host university), and web consultation country for each supervisor will be decided.
- June-August 2022: Web consultation (supervisors will conduct interviews with candidates, brushing up research plans, inspection of maintenance sites, etc.)
- August 2022: Candidates are determined by university, and candidates will start application preparation
- August -December 2022: Application and entrance examination for University Admission
- November-February 2023: Announcement of entrance examination results
- March-April 2023: Study abroad in Japan for enrollment

Selection Schedule



※ Schedule can be changed due to COVID-19 situations.

14. Expenses to be borne by JICA

JICA will provide the following expenses for participants in the program.

- When English proficiency test score such as TOEFL, IELTS, or TOEIC is required for application to university, fee for taking a test would be provided after consulting with JICA office.
- A round-trip airfare (actual cost paid to travel agencies)
- Fee for Official Entrance Examination Fee/ Admission/ Tuition Fee (actual cost paid to universities)
- Outfit allowance (general outfit and shipping) (fixed amount)
- Monthly Stipend: living costs and residence, etc. (fixed amount)
- Expenses for support programs during the study in Japan, including the costs of observation tours and internship (actual cost paid to universities, etc.)

(Notes)

*Please see "Handbook for Knowledge Co-Creation Program for All JICA Scholarship Courses" for specific amount of each item. The amount will be revised every year.

*Other costs should be covered by the participants' organizations or other individuals.

*Participants are not allowed to work during their stay in Japan.

*To invite family to Japan (spouse and children only), participants should be responsible for all expenses, necessary procedure by themselves. JICA does not provide any support or additional financial assistance except issuing necessary documents for the process. JICA strongly recommend participants invite their family AFTER 6 MONTHS upon arrival in Japan.

15. Annex

Annex 1. Application Form

Annex 2. Check List

* HANDWRITTEN FORMS will not be accepted

*Please fill in the printed name and the signature all the pages on the bottom of right-hand corner.

[AM頁1]

7) Present Position and Current Duties

Organization							
Department / Division							
Present Position							
Date of employment by the present organization	Date	Month	Year	Date of assignment to the present position	Date	Month	Year

8) Type of Organization

<input type="checkbox"/> National Governmental	<input type="checkbox"/> Local Governmental	<input type="checkbox"/> Public Enterprise
<input type="checkbox"/> Private (profit)	<input type="checkbox"/> NGO/Private (Non-profit)	<input type="checkbox"/> University
<input type="checkbox"/> Other ()		

9) Contact Information

Home	Address:	
	TEL:	Mobile (Cell Phone):
	E-mail:	
Office	Address:	
	TEL:	Mobile (Cell Phone):
	E-mail:	
Contact person in emergency	Name:	
	Relationship to you:	
	Address:	
	TEL:	Mobile (Cell Phone):
		E-mail:

* HANDWRITTEN FORMS will not be accepted

*Please fill in the printed name and the signature all the pages on the bottom of right-hand corner.

2. Educational Background

Level	Name of School / Department	Location (City and Country)	Number of years officially required for graduation	Number of years of schooling you have attended	From /To (Month/Year)	Academic Degree
Example	*** University Faculty of ***	Nairobi, Kenya	4 Years	4 Years	9/1999 to 6/2003 Month/Year Month/Year	Bachelor of ***
Primary Education					/ to / Month/Year Month/Year	
Lower Secondary Education					/ to / Month/Year Month/Year	
Upper Secondary Education					/ to / Month/Year Month/Year	
Higher Education (University level)					/ to / Month/Year Month/Year	
Other Higher Education (except training)					/ to / Month/Year Month/Year	
Other Higher Education (except training)					/ to / Month/Year Month/Year	
Total Years of Education: _____ year(s)						

(1) Language Proficiency (required)

1) State your level of English proficiency				
Listening	() Excellent	() Good	() Fair	() Poor
Speaking	() Excellent	() Good	() Fair	() Poor
Reading	() Excellent	() Good	() Fair	() Poor
Writing	() Excellent	() Good	() Fair	() Poor
Certificate (Examples: TOEFL, TOEIC)	Test type: () TOEIC L&R () TOEIC S&W () TOEFL IBT () IELTS academic () Others (please specify: _____)			
	Test date (month/year): _____		/ Test score: _____	
	Other test(s) if you have taken: _____			
2) Mother Tongue				
3) Other languages ()	() Excellent	() Good	() Fair	() Poor

- Excellent: Refined fluency skills and topic-controlled discussions, debates & presentations. Formulates strategies to deal with various essay types, including narrative, comparison, cause-effect & argumentative essays.
- Good: Conversational accuracy & fluency in a wide range of situations: discussions, short presentations & interviews. Compound complex sentences. Extended essay formation.
- Fair: Broader range of language related to expressing opinions, giving advice, making suggestions. Limited compound and complex sentences & expanded paragraph formation.
- Poor: Simple conversation level, such as self-introduction, brief question & answer using the present and past tenses.

* HANDWRITTEN FORMS will not be accepted

*Please fill in the printed name and the signature all the pages on the bottom of right-hand corner.

(2) Have you ever been awarded a scholarship for studying abroad?

- Yes** Name of the Scholarship:
Country where you studied:
Duration From (month/year)to (month/year)
- No**

(3) Are you currently applying for any scholarship(s), other than RAM Long-term training?

- Yes** Name of the Scholarship(s):
- No**

(4) Have you ever participated in any program in your country or abroad including any offered by JICA?

- Yes** Name of the course:
Country you visited:
Name of the institution or agency:
Duration From (month/year) to (month/year)
- No**

(5) Your thesis theme(s) and summary(s) for bachelor's and master's degrees

1) Graduation thesis (for bachelor's degree)	
2) Master's thesis (If you apply for doctorial course)	

* HANDWRITTEN FORMS will not be accepted

*Please fill in the printed name and the signature all the pages on the bottom of right-hand corner.

3. Work Experiences

Provide the information of your work experience starting with the most recent one. Write it on a separate sheet of A4 sized paper if space is not enough. Full-time jobs, Part-time jobs and jobs before graduation from university can be included.

(1) Work Experience (as of application)

Organization	Department	Position	Period of Working	From /To (Month/Year)	Full-time or Part-time	** Type
Ex. Ministry of ***	*** Section, ***Directorate	Head	4 years	9/1999 to 8/2003 Month/Year Month/Year	Full	A
(Most recent)				/ to / Month/Year Month/Year		
				/ to / Month/Year Month/Year		
				/ to / Month/Year Month/Year		
				/ to / Month/Year Month/Year		

**For the type of organization, please choose from the followings:

- A. Private Sector B. Ministry/Governmental Institution
- C. Higher Education and TVET(Technical and Vocational Education and Training) Institutions D. Others

Total years of full-time job experience: _____ year(s) _____ month(s)

Total years of part-time job experience: _____ year(s) _____ month(s)

(2) Name of your current employer:

*Do not abbreviate the name.

(3) Name of current department:

*Do not abbreviate the name.

(4) Your Current Occupation (including Position Title)

(5) Work address:

Work phone:

Fax:

Name of Applicant: _____

Signature of Applicant: _____

List of Application Documents to be submitted

- The deadline for submission is 31st March 2022.
- All submitted documents should be photocopied in A4.
- Please order the documents by number.

No	Document	Original / Certified Sets		Copy of Original / Certified Sets		Remarks
		Required	Submitted (Check in)	Required	Submitted (Check in)	
1	Application Form (Annex1)	1				Please use clip, do not staple. Please paste photo on it.
2	Statement of Purpose (Free Format)			1		The graduation certificate must be written in <u>English</u> *. If you don't have the certificate, please submit a copy of Diploma. *(Official translation for non-English documents must be attached.) All documents must be officially certified . Notary Seal on the copy must be original.
3	Research Plan (Free Format)			1		
4	Undergraduate degree graduation certificate* (or Copy of Diploma)			1		
5	Academic Transcript			1		The academic transcript must be written in <u>English</u> * and contain all the grades earned in the university. *(Official translation for non-English documents must be attached.) All documents must be officially certified . Notary Seal on the copy must be original.
6	A copy of Passport with photo			1		If you do not have Passport, National ID and birth certificate are acceptable. *(Official translation for non-English documents must be attached.)
7	ID Photo			1		
8	Score of English proficiency examination (Applicants whose native language is English, or who graduated or expected to graduate from a full time Bachelor's / Master's			1		1. Applicants are required to submit any one of the score of TOEFL, IELTS or TOEIC. ※ English score could be sent separately, if it difficult to submit it together with application documents.

	degree program of which the medium of instruction is English are exempted from submission of scores.)				
9	List of Application Documents to be submitted (This form)		1		Please put a check in the box and submit this document.

*Graduate certificate of master's program for candidates of doctor courses

Core Human Resource Development for Road Asset Management Program

RAMP

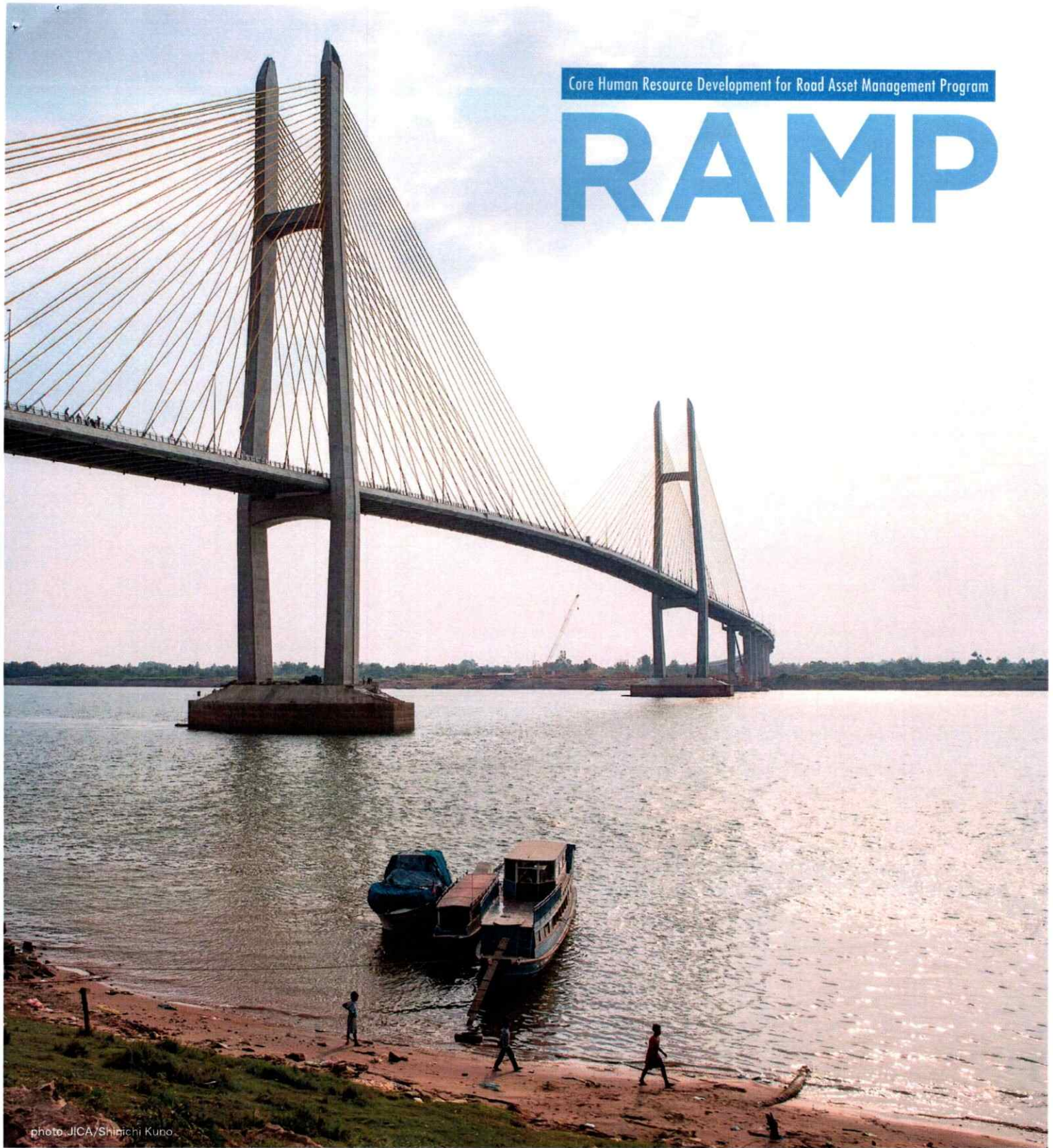


photo: JICA/Shirichi Kuno



RAMP - to connect the world



Road asset management is the practice of appropriately understanding the condition of road assets such as roadways and bridges, making estimates on their degradation and damage, and conducting repair and reinforcement work during the appropriate periods in order to lengthen the life of those assets and realize maintenance plans that aim to minimize life cycle costs. In October of 2017, JICA established the Road Asset Management Platform (RAMP) with the purposes of formulating a plan to efficiently support road asset management that is thought to increase in demand from here on in developing countries, supporting the global expansion of Japanese technologies related to road asset management, and training core personnel to lead in the field of road asset management in developing countries.



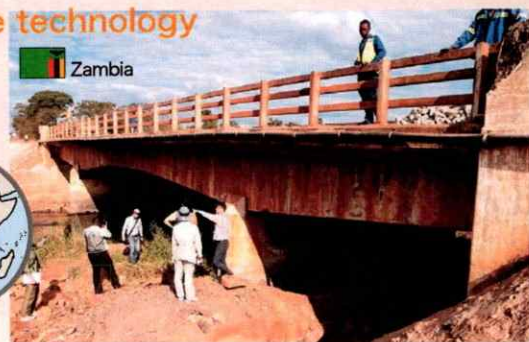
Features of the platform

- Uniformly and comprehensively covers various efforts within Japan related to road asset management and is able to flexibly handle the issues of developing countries.
- Consolidates previous technical support projects and simplifies the approaches to each level and the building of recommendation models.
- Trains personnel to lead in the same fields in developing countries and creates opportunities for mutual technology expansion and building a network of connections.
- Through cooperation with the Japan Society of Civil Engineers, the Society's world-class technologies and knowledge regarding lengthening infrastructure lifespans and asset management can be utilized in the support of developing countries.



Connecting the world with cutting-edge technology

In Zambia, there was a need for more sustained training of bridge engineers. In response to this, the "Maintenance Expert Training Course", a training program for bridge engineers run by Gifu University in Japan, was introduced and a sustainable engineer training system is now being established with the University of Zambia playing a central role.



In Laos, institutions that manage road infrastructure are currently suffering shortages of labor and technology. Through a technical cooperation project, experts from industry, academia and the government will be delegated and leading technologies from Japan will be utilized to work on solving onsite technical problems and sustainably training personnel. They will further aim to promote innovation from Japanese companies and universities and advance overseas business expansion.

What is the Core Human Resource Development for Road Asset Management Program?

The Core Human Resource Development for Road Asset Management Program aims to strategically train personnel tasked with the role of establishing road asset management in developing countries. It is a long-term training program run as a part of the RAMP project.

Each participants are expected to master knowledge and technologies involved with road asset management at graduate schools in Japan. The program also aims to promote understanding of Japanese technologies and personal networking with Japanese policy makers and researchers, through the introduction of Japanese initiatives and human resource development methods. By doing this, the project trains personnel to be the core in their fields in the future and contributes to policy making and implementation for establishing road asset management in their own country.



photo: JICA/Shinichi Kuno



photo: JICA



photo: JICA/Kiko Suzuki

Target participants

- Current administrators or technical officers who govern roads (maintain road-related laws, formulate road policies, allocate road budgets, manage road projects, etc.) or manage road operations in the government of a developing country
- Current educators or educator candidates at a university in a field related to road asset management (soil mechanics, concrete technology, steel structural engineering, etc.) in a developing country

Program content

- Enrollment in Master's degree course / Doctorate degree course
- Visit to Japanese local governments, highway companies, research institutes and private companies.
- Participation in JICA's various training programs in the fields of roads and bridges
- Internship at Japanese private companies



photo: JICA



photo: JICA/Shinichi Kuno



Program Outline

《Preparation》

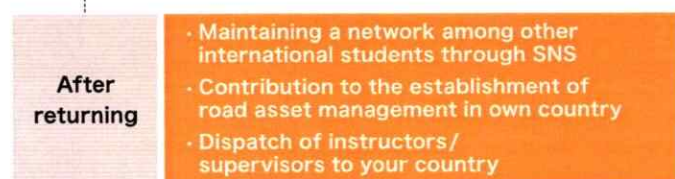
■ JICA ■ Universities in Japan



《Arrival in Japan in Spring》



《Return to country》



Accepted number of participants per year and per country

Country	Enrollment Year (JFY)		
	2018	2019	2020
Laos	3		
Cambodia	1		
Indonesia			
Philippines		2	1
Myanmar			2
Mongolia		1	
Bhutan			4
Nepal			
Bangladesh		1	
Pakistan			2
Kyrgyzstan			1
Kenya			3
Ethiopia			1
Zambia			
Ghana			
Madagascar			
Egypt		1	
Chile			1
El Salvador			
Total	4	5	15

(As of December 2020)

Expectations for participants

This program offers the chance to research road asset management at a Japanese university. Additionally, it is not only a research opportunity but also a chance to learn about the work involved in establishing road asset management in Japan and the technologies developed by private companies and research institutions as well as an opportunity to participate in an internship program at a private company or research institution. When the participants return to their home country, it is hoped that they will substantially use the knowledge and techniques they acquired through this program and their built-up human network of Japanese academic intellectuals and private companies to play a central role in establishing road asset management and, in reference to Japan's initiatives, promote industry-government-academia partnerships in their countries. In order to establish road asset management in line with the actual situations of each country, the cooperation of industry, academia and government is necessary. By having all three parties collaborate

Director of Team 1, Transportation Group,
Infrastructure Management Department, JICA

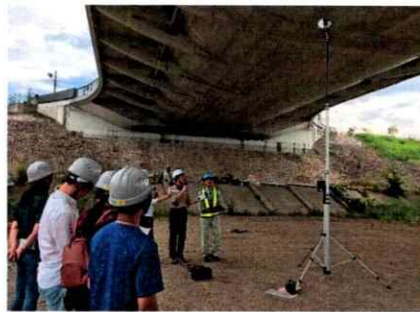


Mr. Tomoki Kanenawa

– the government managing maintenance, private companies offering technology, and universities researching and developing – a sustainable road asset management system can be built. Participants are expected to play not only the role of connecting Japan with a developing country, but also that of a key person in connecting government, private companies and universities in the area of road asset management. During the international student program, the participants will also have some opportunities to meet and exchange with road asset management long-term trainees from other countries. Along with acquiring knowledge on the circumstances and issues involved in these other countries, please also take the effort to continue making contact with each other after returning to your respective countries and encourage each other to solve the issues in your countries.

Special program

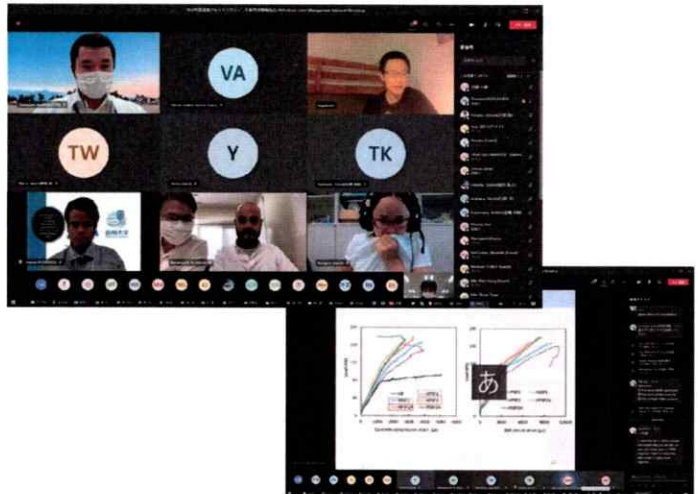
A special program for participants will be held during the university summer vacation period with the aim of further deepening understanding of road asset management. Trainees who participated in the 2019 program gave feedback such as "I want to also participate in next year's program so as to further acquire knowledge about road asset management" and "having seen the inspection demo that used Japanese technology, I wish to implement new technologies into my own country too", and a survey conducted afterwards also evaluated the program highly. The program is scheduled to continue to be implemented in the future.



Midterm report

On September 29, 2020 (Tuesday), a research midterm report presentation was conducted by six international students currently studying at a university in Japan. This year, as the coronavirus pandemic made it difficult to conduct training and present the reports in person, the presentation was conducted online.

The audience consisted of international students who were scheduled to come to Japan and study in Japanese universities in the Japanese fiscal year of 2020 as well as the superiors of international students currently enrolled in the program, and a meaningful discussion took place about the research and activities being carried out in Japan.



Internships

There are opportunities for participating in internships for international students wishing to do so. These internships have the right three objectives:

With the impact of the coronavirus pandemic, as of December 2020 internships are yet to be implemented, however they are scheduled to be conducted in future as they become available. Moreover, they will be conducted during a period that doesn't interfere with schoolwork and that is at shortest three days and at longest one month.

- 1 Deepen understanding of Japan's latest outstanding technologies and initiatives related to roads through work experience
- 2 Contribute to the participant's own research paper and, after returning back to their country, their policy making and implementation
- 3 Expand the participant's network within Japan

Participant Research Themes

Enrollment year	Course	National origin	University	Research theme
2020	Doctor	Chile	Tohoku University	Development of dual diagnosis and Assessment Methodology for Bridges Systems as Tools for Post-Earthquake Inspection (Tentative)
2020	Doctor	Ethiopia	Osaka University	Developing Comprehensive Framework for Road Maintenance Delivery Strategy: The Case for Addis Ababa Roads Authority and Ethiopian Roads Authority, Ethiopia
2020	Doctor	Pakistan	Shibaura Institute of Technology	Development of Strategy for Road Asset Management
2020	Doctor	Pakistan	Kanazawa Institute of Technology	Efficient, Sustainable and Strategic Road Asset Management System based on Preventive Maintenance for Provincial Roads.
2020	Doctor	Kenya	Gifu University	An Analysis of Terrestrial Lidar Technology versus Global Navigation Satellite Systems (GNSS) Deformation Monitoring of Civil Structures
2020	Master	Philippines	Shibaura Institute of Technology	Monitoring of Carbon Footprint of Construction of Infrastructure Projects in the Philippines
2020	Master	Kenya	University of the Ryukyus	TBC
2020	Master	Kenya	Shibaura Institute of Technology	Establish and reinforce a Road Asset Management system that encompasses the whole road Network and is applicable on all roads in Kenya as well as properly integrate Bridge management systems comprehensively in Road maintenance.
2020	Master	Bhutan	Nagasaki University	Using Artificial Intelligence (AI) to Maintain Bridges in Bhutan
2020	Master	Bhutan	Shibaura Institute of Technology	Road Asset Management and Proper Investment Planning
2020	Master	Bhutan	Gifu University	Investigation of Moisture Damages to Flexible Pavement
2020	Master	Bhutan	The University of Tokyo	Road Asset Management using GIS and Remote Sensing: Case Study in Bhutan
2020	Master	Myanmar	The University of Tokyo	Effective maintenance system for cable type bridges in Myanmar, based on probabilistic approach in statistical analysis of the deterioration curve
2020	Master	Myanmar	Osaka University	Strengthening of Infrastructures, advance construction technology and development of construction materials
2020	Master	Kyrgyzstan	University of the Ryukyus	Modern technologies in the maintenance of bridges and roads
2019	Doctor	Egypt	Nagasaki University	Calibration of HDM-4 Pavement Deterioration Models for Leos National Highways
2019	Master	Bangladesh	Kanazawa Institute of Technology	Comparative Study of RC Beam Hybrid Strengthening with Thermoplastic and Thermosetting FRP Subjected to Static Loading
2019	Master	Mongolia	Gifu University	Crack detection of aged concrete decks based on deep learning image classification
2019	Master	Philippines	Kanazawa University	Study on the Environmental Monitoring on Proper Maintenance of Concrete Structures with Mortar Sensor (Provisional)
2019	Master	Philippines	University of the Ryukyus	Research and Development for Infrastructure Lifetime=Extending Maintenance Technology
2018	Master	Laos	Nagasaki University	Development of Lifetime Extending Maintenance Management of Steel Bridge Structure
2018	Master	Laos	Nagasaki University	The Study on the Inspection and Assessment Method of Bridge Structures for Infrastructure Asset Management
2018	Master	Laos	Hokkaido University	Study on Overloading Policy and Technology on Weigh Control in Lao PDR
2018	Master	Cambodia	The University of Tokyo	Estimation of Bridge Construction Years in Cambodia by the Analysis of Landsat Satellite Data

(As of December 2020)

After graduation I will continue research in my own country and contribute to low-cost infrastructure reinforcement.



Mr. Md Golam Mostofa

Affiliation: Ministry of Road Transport and Bridges
 University: Kanazawa Institute of Technology(M.D)
 Duration:2019.4 - 2021.3



National origin: Bangladesh



Last year, I enjoyed the Japanese tea ceremony. It was aristocratic and nice!



I like to explore Japanese culture and infrastructure development and want to see more mountains, castles, park.

Reason for Applying

I have been working for the Roads and Highways Department (RHD) since 2011. My responsibilities included Bridge infrastructure design and maintenance. My purpose in applying this program is to contribute to the strengthening of existing infrastructures to maintain serviceability performance and enhanced load-carrying capacity.

Research

The main objectives of my research are :

- To evaluate the performance of the flexural strengthening of RC beam specimen with an alternative, cost-effective thermoplastic CFRP material.
- Investigation of combined Near-surface mounted (NSM) and Externally bonded reinforcement technique (Hybrid Bonding method) applied to the strengthened specimen with a comparatively shorter span to depth ratio.

Prospect

After graduation, I will continue to research in my country and contribute to the strengthening of the existing bridge infrastructures with a low cost solution.

Daily life

I have been to many Bridge sites and enjoyed staying in Tokyo, Fukui, Nagoya, Gifu, and Nagasaki. At weekend, I like to visit the sea, mountains, castles, park with my family members.

Using the knowledge gained in Japan, I will contribute to reducing life cycle costs.



Ms. Tsogkhuu Khosgerel

Affiliation: Ministry of Road and Transport of Mongolia
 University: Gifu University(M.D)
 Duration:2019.3 - 2021.3



National origin: Mongolia



Akashi Kaikyō Bridge
 Total length -3911 m



Oda Nobunaga- the first "Great Unifier" of Japan

Reason for Applying

The Government Action Plan /2012/ aiming to connect all provinces with the capital city by paved road is approaching completion. The next challenge is how to keep the network in good condition. As road sector management in Mongolia is in the process of switching its focus from new construction to maintenance of the existing structure, I felt the importance of road asset management.

Research

"Corrosion Classification of Weathering Steel by Deep Learning method" Road Asset Management is a systematic and permanent process. Regular bridge inspection helps to make better decisions based on informed understanding of the current actual condition of the bridge. Briefly, regular inspection is the first step to the Strategic Asset management system and helps the road administrator to discharge their responsibilities effectively by data-driven systematic maintenance management.

Prospect

I will use my new knowledge to extend operational life and reduce the life cycle cost of roads and bridges in Mongolia.

Daily life

I like to go short trips in Japan to sightseeing and participating in short-term trainings. Last year, I traveled to Kyoto, Kobe, Nagoya, Yokohama, and Tokyo. This year, due to the pandemic disease I am minimizing the extracurricular activities. Luckily, my supervisor allowed me to travel to Ryukyu University in Okinawa last week. It was an amazing experience.

I want to make use of the knowledge gained in Japan to improve road management systems.



Mr. Bounthipphasert Soumphonphakdy

Affiliation: Ministry of Public Works and Transport
 University: Nagasaki University (Ph.D)
 Duration: 2017.10 - 2021.9



National origin: Laos



I am a member of Freestyle badminton club, and I very enjoy playing it in my free time.



I really enjoyed visiting the site of road rehabilitation because I was able to improve my knowledge and it was very helpful in my work and research.

Reason for Applying

My desire to apply this program is to contribute to roads and bridges maintenance and management systems in Laos.

Research

My research objective is to analyze the risks of managing roads in Laos to look for the best ways to improve them in tight budgets for maximum benefit and maximum efficiency.

Prospect

After I graduate from Nagasaki University, I will use the knowledge I have studied in Japan to improve the roads management systems in Laos.

Daily life

I have been to many famous places with my friends and enjoy staying in Nagasaki. During March to May in this year, I cannot go to my university because of COVID-19, so during that time it was quite difficult to research.

I want to contribute to the development of my beloved home country.



Mr. Thavone Khounsida

Affiliation: Ministry of Public Works and Transports
 University: Nagasaki University (Ph.D)
 Duration: 2017.10 - 2021.3



National origin: Laos



I love to play football and enjoy playing at the weekend with many friends. For my academic life, I love to spend time researching and participating in many joyful seminars and trainings.



Reason for Applying

I work on road and bridge training for many years, and I found that a lot of improvements are needed for road and bridge management in my country as well as developing countries around the world.

Research

My research objective is to develop a Lifetime Extending Maintenance Model for the steel bridge(The case study for the Bailey bridge in Laos).

Prospect

After I graduate from Nagasaki University, I will back to my country and contribute to developing for my beloved country.

Daily life

I spend time to research, enjoy tasting Japanese food and culture, and enjoy visiting many places around Nagasaki city. During the COVID-19 pandemic, it is a little tricky situation and challenging for daily life. Fortunately, we can use the internet and media for sharing and learning instead.

I will pass on to my home country knowledge and technology related to managing the assets of roads and bridges.



Mr. Mohamed Saied

Affiliation: _____
 ENIT-Ministry of Transport
 University: _____
 Nagasaki University(Ph.D)
 Duration:2019.4 - 2022.3



National origin:
 Egypt



Reason for Applying

I've been a teaching assistant at the Egyptian National Institute of Transport (ENIT) since 2014. My responsibilities included teaching many Courses in the Highway and Traffic Department, in addition to participating in research projects. I'm very fortunate to participate in this program, which I've learned a lot about maintaining and investigation techniques for roads and bridges.

Research

The main objective of my research is to develop pavement deterioration models based on roughness for Laos National Roads network, the developed models help for; Eliminating expenses for obtaining and analyzing field Data. Helping decision maker for planning, setting priorities for maintenance and rehabilitation of deterioration roads.

Prospect

After graduation, I'll come back to Egypt and establishing a new diploma/short term training courses in ENIT about Road and bridge asset Management, as well as developing new prediction models for pavement deterioration and transferring new technologies for data collection and inspection to GARBLT (General Authority for Road Bridge and Land Transport).

Daily life

I've visited many prefectures in Japan like Tokyo, Osaka, Nagoya, and Fukuoka. Also I used to participate in many outdoor activities like swimming, fishing, jogging. I'm so happy to lose weight 12Kg.

I will utilize my research conducted in Japan to improve infrastructure in my home country.



Mr. Amores Vincent Andrew Dayag

Affiliation: _____
 Department of Public Works and Highways
 University: _____
 University of the Ryukyu(M.D)
 Duration:2019.4 - 2021.3



National origin:
 Philippines



The changing seasons also provide balance between research and recreation.

I love exploring places with my friend. We enjoyed the snow during the warm winter last year.

Reason for Applying

Through this program, I want to learn infrastructure maintenance of Japan which can help the Philippines.

Research

My research focuses on steel bridges. I am studying the effect of corrosion on friction joints as well as the distribution of pressure due to wind load. Additionally, I am trying to transcribe the "Anti-corrosion Manual of Steel Bridges in Okinawa".

Prospect

I plan to share the details and results of my research with my superiors and colleagues in the Philippines.

Daily life

For more than a year, I have been trying to learn Nihongo during rest days.

Case-1

**Nagasaki University,
Graduate School of Engineering**
Associate Professor
Dr. Takafumi Nishikawa

University outline
Location: Nagasaki City,
Nagasaki Prefecture
<http://www.nagasaki-u.ac.jp/>



A partnership that transcends the frameworks of universities and countries

In Nagasaki, there's a program for training road infrastructure maintenance engineers called "Michimori" that is in cooperation with Nagasaki Prefecture and Nagasaki University. There is also a program started for regular citizens that allows them to contribute to maintenance by watching over road infrastructure of the region. There's a lot of interest from overseas, and some countries have even started their own personnel training programs modelled off of Michimori.

Associate Professor Dr. Nishikawa of Nagasaki University who worked on "Michimori" is accepting participants of JICA's "Core Human Resource Development for Road Asset Management Program" as international students. In collaboration with the National University of Laos, he conducts research with a Laotian international student on the Bailey bridges, while receiving a grant from the Japan Society of Civil Engineers. Dr. Nishikawa says that "Bailey bridges are found all around the world and the research outcomes in Laos are expected to be of use to various countries."

He mentions that new initiatives are also being created: "A good example is how an Egyptian international student, who was accepted into this program in Nagasaki University, is using the results of the JICA Technical Cooperation project that was conducted in Laos to continue research that's looking into strengthening and improving the road maintenance capabilities in Egypt."

Case-2

**Gifu University,
Graduate School of Engineering**
Associate Professor
Dr. Koji Kinoshita

University outline
Location: Gifu City, Gifu Prefecture
Nagasaki Prefecture
<http://www.gifu-u.ac.jp/>



Expanding the knowledge of Japanese universities to the world

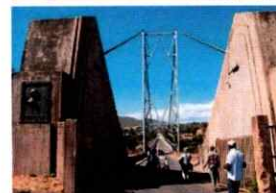
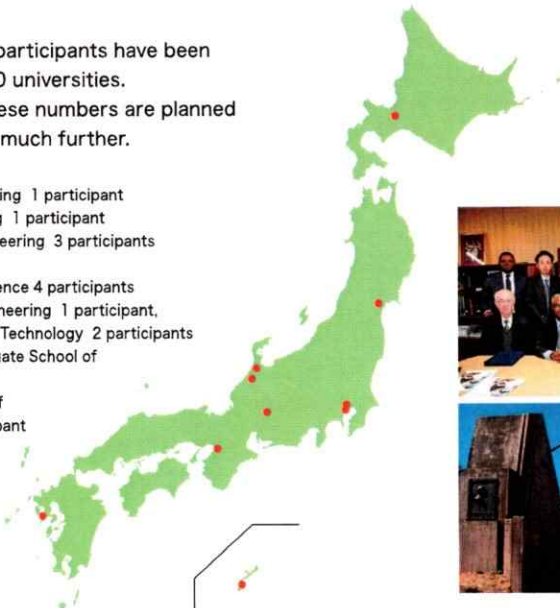
In 2019, Gifu University, after having participated in JICA technical cooperation survey projects in Zambia, made an agreement between faculties with the University of Zambia. Furthermore, Gifu University also participated in another JICA project for bridge maintenance capability building in Zambia from which it was decided for a bridge maintenance center to be launched within the University of Zambia's faculty of engineering in cooperation with both universities.

In the "Core Human Resource Development for Road Asset Management Program", as a part of the special program run in August 2019, a tour was conducted of Gifu University's "Infrastructure Museum", which contains full-size models of bridges and tunnels. Also, a bridge inspection demonstration was carried out at Kagamihara Bridge in Kagamihara City, Gifu Prefecture. It utilized the very latest technologies of Japanese private companies, which included robots, drones and non-destructive inspection devices. Associate Professor Dr. Koji Kinoshita told of the significance of this inspection: "Through an inspection that used assisting robots and drones - which was one of the first inspections of its kind in Japan - we were able to show participants the yearlong progress of cracks. This is data acquired through the very latest technology and it will continue to be of use from here on."

List of
Accepting
Universities

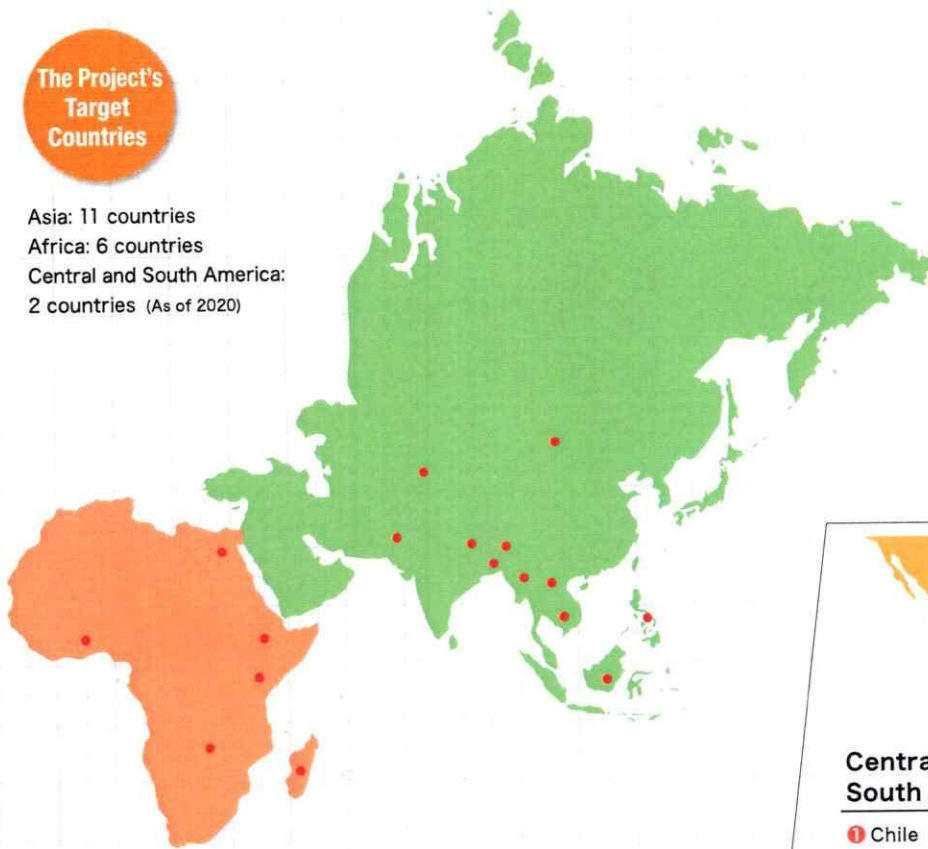
As of 2020, 24 participants have been accepted into 10 universities. In the future, these numbers are planned to be increased much further.

- Hokkaido University, Faculty of Engineering 1 participant
- Tohoku University, School of Engineering 1 participant
- The University of Tokyo, School of Engineering 3 participants
- Shibaura Institute of Technology, Graduate School of Engineering and Science 4 participants
- Gifu University, Graduate School of Engineering 1 participant, Graduate School of Natural Science and Technology 2 participants
- Kanazawa Institute of Technology, Graduate School of Engineering 2 participants
- Kanazawa University, Graduate School of Natural Science & Technology 1 participant
- Osaka University, Graduate School of Engineering 2 trainees
- Nagasaki University, Graduate School of Engineering 4 trainees
- University of the Ryukyus, Graduate School of Engineering and Science 3 trainees



The Project's Target Countries

Asia: 11 countries
 Africa: 6 countries
 Central and South America:
 2 countries (As of 2020)



Asia

- 1 Laos
- 2 Cambodia
- 3 Indonesia
- 4 Philippines
- 5 Myanmar
- 6 Mongolia
- 7 Bhutan
- 8 Nepal
- 9 Bangladesh
- 10 Pakistan
- 11 Kyrgyzstan

Africa

- 1 Kenya
- 2 Ethiopia
- 3 Zambia
- 4 Ghana
- 5 Madagascar
- 6 Egypt

Central and South America

- 1 Chile
- 2 El Salvador

Having the road and bridge maintenance engineers of developing countries study at Japanese universities

As a part of the JICA road asset management platform, an initiative has started to have engineers who handle road and bridge maintenance in developing countries study at Japanese universities as long-term trainees ("international students" at the universities), and already over 20 participants are currently studying in Japan. Road and bridge maintenance differs from new construction projects in that it requires perspectives and expertise that are long-term as well as diversified in technologies and systems. This field covers inspection, diagnosis, repairing technology, data management and analysis, as well as budget estimation based on future estimates. These engineers have mostly experienced working on maintenance in developing countries where the infrastructure is set to improve from here on, and by having them study in Japan, it's expected that their consideration of maintenance from the construction stage will bring about higher quality infrastructure.

I myself have already accepted in some participants (international students) from Cambodia, Myanmar and Bhutan, and by being able to find out about the actual circumstances of these countries' infrastructure management I've been able to gain information that is also beneficial to Japan. For the research themes, we are using the latest research that matches the needs of each country. For example, a Cambodian participant's master's thesis is about estimating the undocumented construction years of bridges in Cambodia through

using data from satellites to trace back the bridges' previous circumstances.

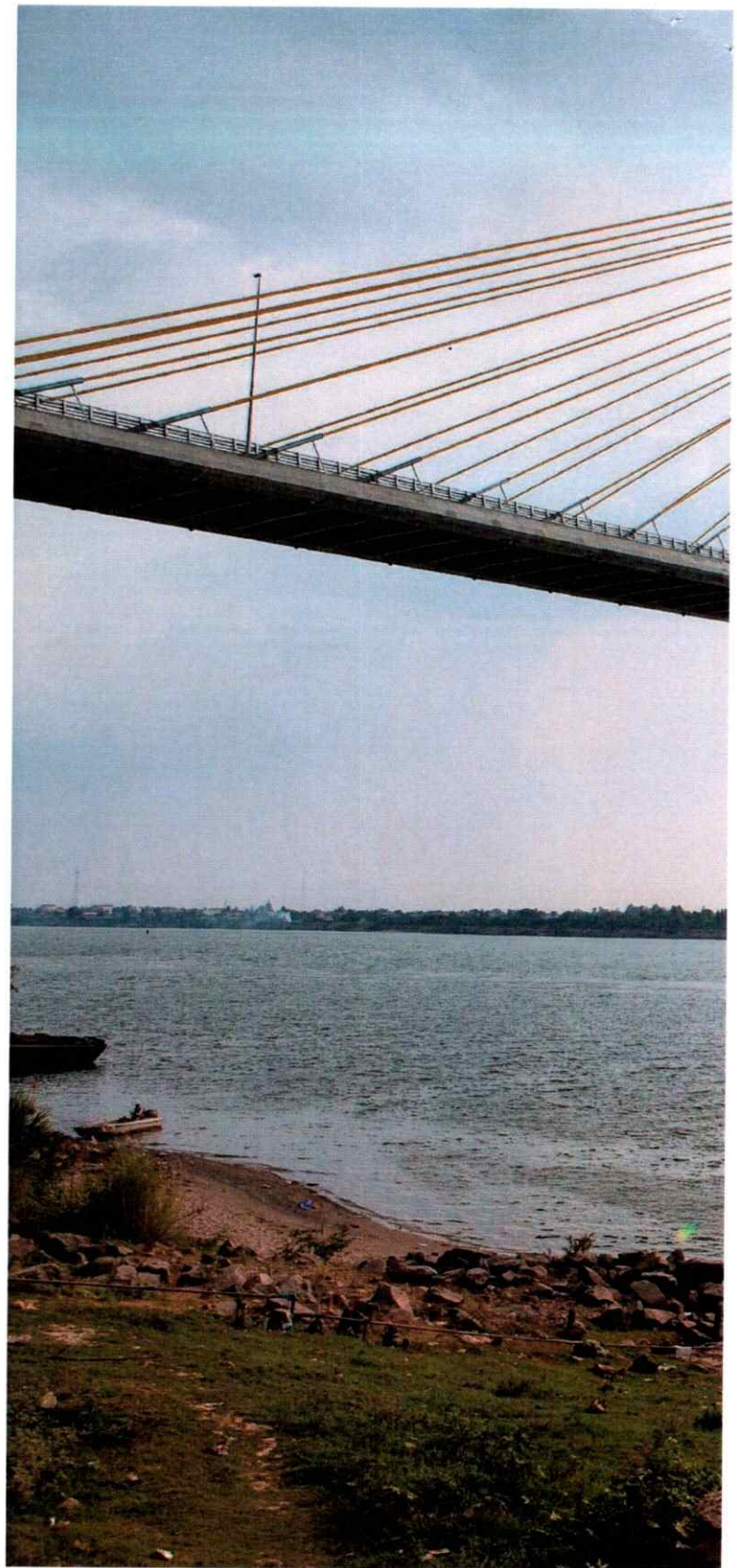
JICA is also offering opportunities for them to find out extensively about the circumstances in Japan through holding research presentations where the participants meet together and through organizing training tours to places where maintenance work is conducted in Japan. Having engineers who are central to the maintenance of roads and bridges in their own countries study in Japan allows them to also become important people in the future for when transferring technologies from Japan. I'm participating in these activities in view of the importance of not only having the participants bring Japanese technologies and knowledge home with them, but also of them growing to like Japan and continuing to have connections to Japan even after returning home.

**Associate Professor, Institute of Industrial Science,
 The University of Tokyo**

**Section Chief of the International Expansion Section,
 Promotion of New Technology Application
 Subcommittee, Infrastructure Maintenance
 General Committee, Japan Society of Civil Engineers**

Dr. Kohei Nagai





**Transportation Group,
Infrastructure Management Department,
Japan International Cooperation Agency (JICA)**

<http://www.jica.go.jp/>

February 2021

RAM P

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

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

Local Government

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

JSCE

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

Partner University

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

Private Company

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

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.

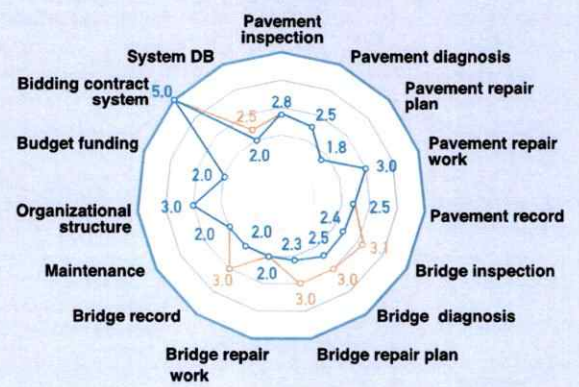
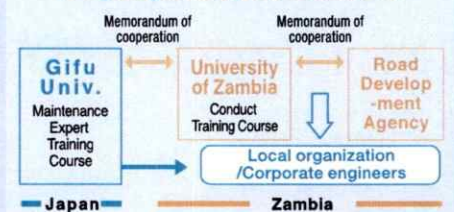
International students(long-term trainees)

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



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



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