

PROJECT NEWS

8th Posting: April 2023-September 2023

**April, May 2023: Activities**

04 April 2023: 4<sup>th</sup> Joint Coordinating Committee Meeting



Higher officials from MIHUD & RDA



Officials from JICA & Zambia



Presentation of Output 4



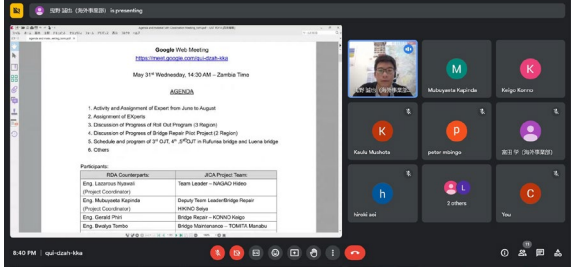
Approval of Work Plan 4<sup>th</sup> Edition



Group Photo

## JICA- Technical Cooperation Project Phase II

- On the 24<sup>th</sup> of April and 30<sup>th</sup> of May, 53<sup>rd</sup> & 54<sup>th</sup> Coordination Meeting were held to discuss the Progress of activities.

	
24 April: 53 <sup>rd</sup> Coordination Meeting	31st May: 54 <sup>th</sup> Coordination Meeting

### **June 2023: Activities**

June 5-10: 3<sup>rd</sup> OJT on Bridge Repair: Installation of Expansion Joint & Application of Carbon Fiber Sheet (Demonstration Area only)

- The 3<sup>rd</sup> OJT on Bridge Repair were conducted in Rufunsa Bridge and technical assistance to the contractor had been given.

The OJT in Rufunsa Bridge covers the following topics;

1. Selection of Repair Method
2. Summary and situation of Pilot Project and Repair Methods
3. Introduction of Repair Methods
  - (1) Fiber Cement for deck slab
  - (2) Replace of Expansion Joint
4. Field Training
  - (1) Replacement of Expansion Joint
  - (2) Fiber Cement on Deck Slab
5. Pre and Post Evaluation

The OJT were attended by RDA from Headquarter, Lusaka Region, Western Region, Muchinga Region and Local Contractor (Horizon Properties).

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3<sup>rd</sup> OJT on Bridge Repair Lecture



3<sup>rd</sup> OJT on Bridge Repair Field Training



3<sup>rd</sup> OJT on Bridge Repair @ Rufunsa Bridge



3<sup>rd</sup> OJT on Bridge Repair @ Rufunsa Bridge







Preparation of Expansion Joint (Before)



Photo of Expansion Joint (After)

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The Technical Assistance from Mr. Fernando Hipolito, Jr. of Alphatec to the contractor were successfully been instructed and transferred.

	
<p>Technical Assistance on the installation of Expansion Joint</p>	
	
<p>Technical assistance on Fiber Cement Concrete (Preparation of area)</p>	<p>Technical assistance on application of Fiber Cement Concrete</p>

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June 14-22: 4<sup>th</sup> OJT on Bridge Repair: Application of Carbon Fiber Sheet

- The 4<sup>th</sup> OJT on Bridge Repair were conducted in Western Region @Luena Bridge and the technical assistance to the contractor had been given.

The OJT in Luena Bridge covers the following topics;

1. Summary and situation of Pilot Project, Repair Methods
2. Introduction of Repair Methods
  - (1) Carbon Fiber Sheet
3. Field Training
  - (1) Cutting and Application of Carbon Fiber Sheet
4. Pre and Post Evaluation

The OJT were attended by RDA Regional Manager of Western Region, Principal Engineer from RDA HQ and RDA Senior Engineers from Lusaka Region, Western Region, Southern Region, Copperbelt Region, Eastern Region, NRFA, Contractors (Horizon Properties Limited, OMNI Contractors Limited and Ruthfield Limited).

The Technical Assistance from Mr. Takahiro Matsui of Toray Industries Co. to the contractor were successfully been instructed and transferred.



16 June 2023: OJT Lecture



16 June 2023: Message from RM



16 June 2023: OJT Lecture



16 June 2023: OJT Lecture

	
<p>Technical Assistance @ Luena Bridge</p>	<p>Technical Assistance @ Luena Bridge</p>
	
<p>Technical Assistance @ Luena Bridge</p>	<p>Technical Assistance @ Luena Bridge</p>

**July 2023: Activities**

The 5<sup>th</sup> OJT on Bridge Repair: Application of Fiber Cement Concrete

- The 5<sup>th</sup> OJT on Bridge Repair were conducted in Lusaka Region @Rufunsa Bridge and technical assistance to the contractor had been given.

The OJT in Rufunsa Bridge covers the following topics;

1. Introduction of Training Program
2. Pre-Evaluation Questionnaire
3. Summary and Situation of Pilot Project, Repair Methods
4. Introduction of Repair Methods (Water Proofing)
5. Field Training
  - (1) Water Proofing: Marking of Surface Area, Application of Resin, Drainage Pipe covering
  - (2) Water Proofing
6. Post Evaluation Questionnaire

The OJT were attended by the Regional Manager of Lusaka Region, Principal Engineer from RDA Headquarters, Senior Engineers from Lusaka Region, National Council for Construction (NCC), Contractors [Horizon Properties Contractors Limited and Ruthfield Limited) and Luangwa Local Council

The Technical Assistance from Mr. Motofumi Tatshishita of Nicherike Co., Ltd. to the contractor were successfully been instructed and transferred.

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July 13: Technical Assistance: Torching of Protruding Fibers



July 14: Technical Assistance: Application of Caticcoat Resin



July 17: Message from the Regional Manager



July 17: OJT Lectures



July 18: Technical Assistance: Clearing of Drainage



July 18: Technical Assistance: After Clearing of Drainage



July 18: Technical Assistance: Removal of Markings



July 18: Technical Assistance: Removal of Markings

<p>July 19: 55<sup>th</sup> Coordination Meeting Zambia</p>	

[Document 4: Activity status photos] (July 2023)  
**[bridge repair]**

◆ Rufunsa Bridge On-site confirmation: 7/12 (Wednesday)

<p>Panoramic view of the bridge</p>	<p>Same as left</p>
<p>Expansion device (previous construction: A1 area)</p>	<p>Installed fiber cement (A1-P1)</p>
<p>fiber cement surface (A1-P1)</p>	<p>Replacement of expansion device during construction (P1 area)</p>



<p>Fiber cement under construction (P1-A2)</p>	<p>Replacement of expansion device during construction (A2 area)</p>
<p>Silica sand → Re-sieving required</p>	<p>Same as left</p>

◆ Rufunsa Bridge on-site technical guidance (bridge surface waterproofing):7/13 (wood)

<p>Material confirmation</p>	<p>Same as left</p>
<p>Checking the condition of the top surface of the floor slab</p>	<p>Surface treatment/grinder treatment</p>



Fiber protrusion removal (using burner)



Same as left



Marking process



Same as left



Meeting status

◆Rufunsa Bridge on-site technical guidance (bridge surface waterproofing):7/14 (Money)



Pre-work meeting



Same as left

	
Floor slab top surface cleaning	Primer application (bottom side of wall railing)
	
Primer application (lower side of expansion device)	Primer application (top of deck slab)
	
Primer complete	

◆Rufunsa Bridge on-site technical guidance (bridge surface waterproofing): 7/15 (±)

	
Silica sand collection (re-sieving)	Same as left

	
<p>Waterproof material (solid state)</p>	<p>Preparation for dissolving waterproofing material</p>
	
<p>Waterproofing material dissolution work</p>	<p>Same as left</p>
	
<p>Same as above</p>	<p>Waterproof layer application (drainage basin)</p>
	
<p>Waterproof layer application (expandable rising part)</p>	<p>Waterproof layer application (lower end of wall railing)</p>



Waterproof layer application/work situation



Same as left

◆Rufunsa Bridge OJT : 7/17



Photo of the lecture situation MC: Cherri)



Lecture status (Hikino)



Lecture status (Mr. Tatsushita)



Lecture status



Lecture status



On-site rec (photo at meeting)



Photo of waterproof material dissolving



Waterproof layer application status



Waterproof layer application status



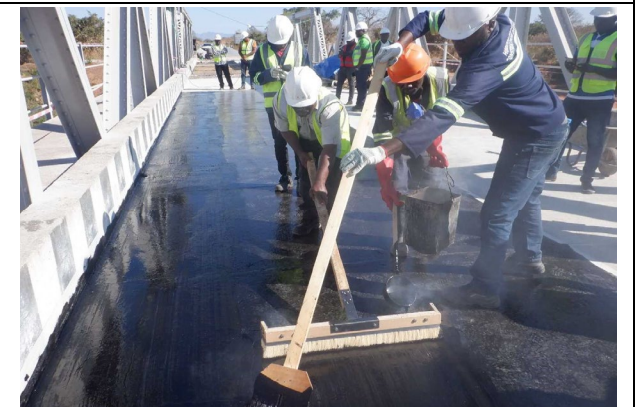
Same as left



Waterproof layer application status



Same as left



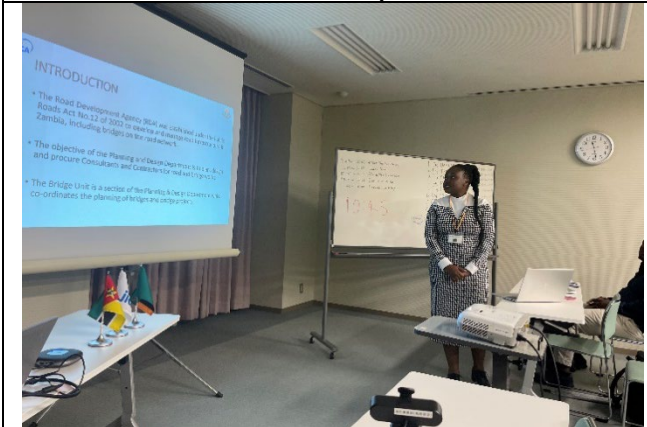
Waterproof layer application status	Same as left
	
Silica sand distribution status	Same as left
	
Edge sealant installation instructions	Drain pipe installation instructions
	
Group photo	

**August 2023 Activity**

· Training in Japan (July~Aug.)



Repair work station, long bridge site inspection



Presentation of action plan by C/P



Certificate of completion ceremony



**September 2023**

Activity status photos

Meeting regarding OUTPUT-4 with Gifu University: 9/13 (Wednesday)



Meeting status

• JICA Meeting at the Zambia office (held jointly with Gifu University)



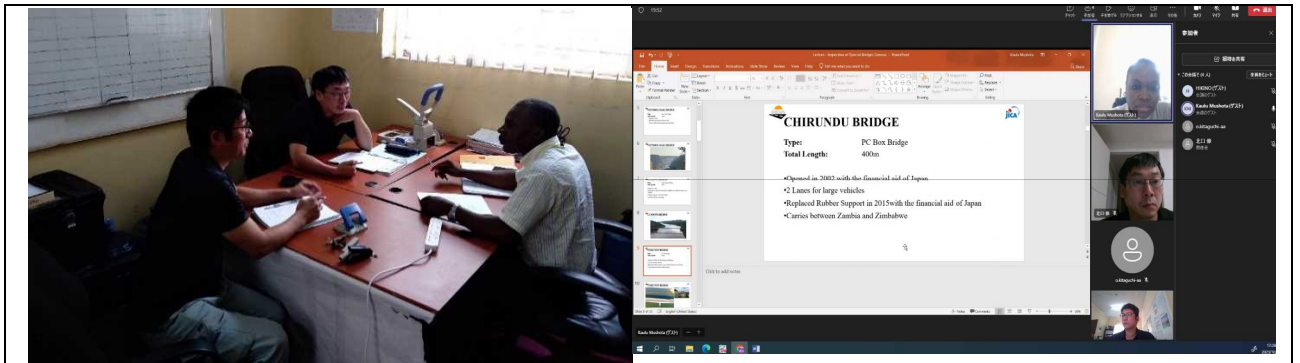
Meeting status

[Outcome 4] Meeting to prepare lectures for BE training course, implementation training, etc.

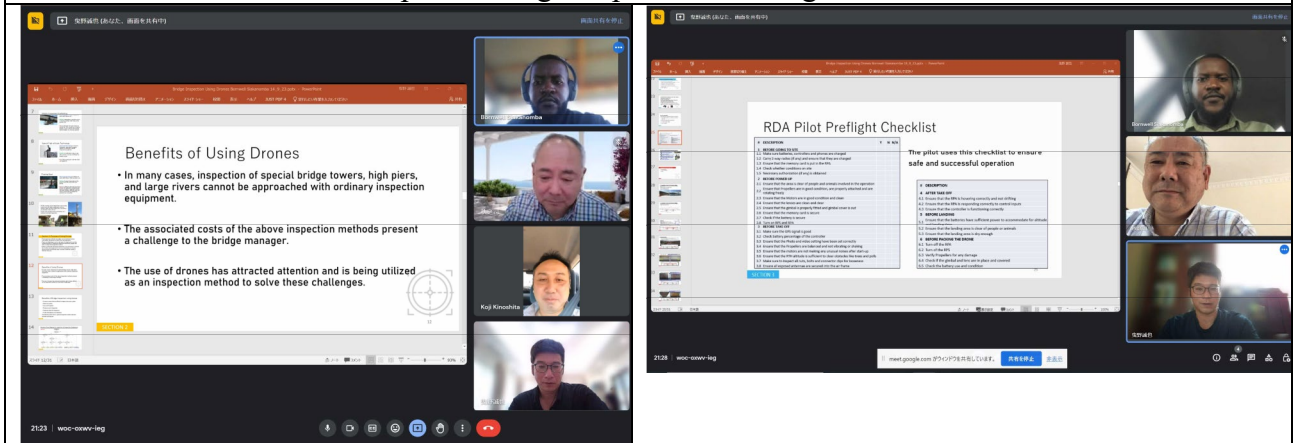


[Outcome 4] Meeting to prepare lectures for BE training course, implementation training, etc.

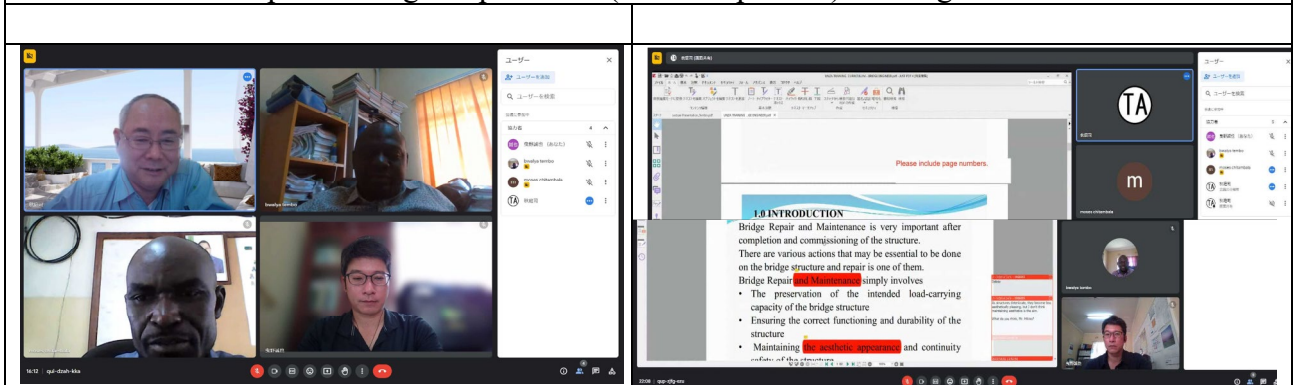
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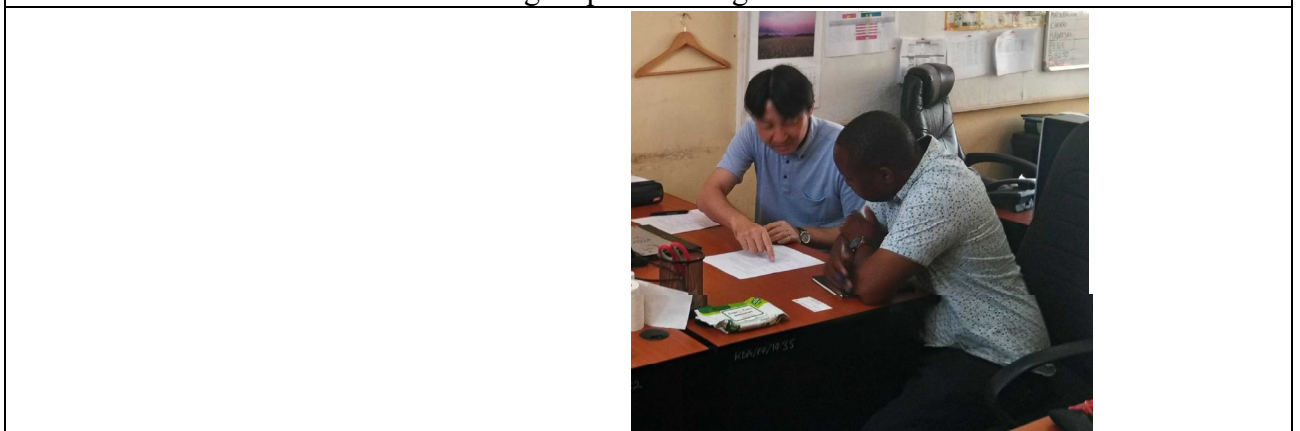
Special bridge inspection meeting status



Special bridge inspection-2 (drone inspection) meeting status



Bridge repair meeting status



Maintenance management system meeting status

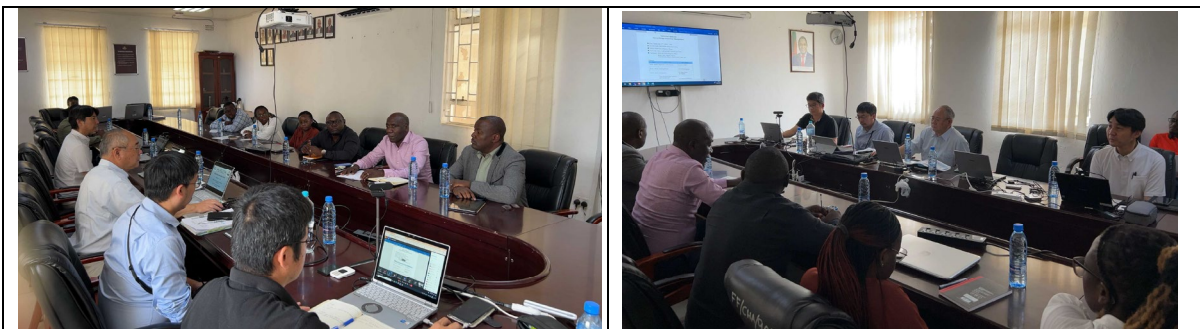
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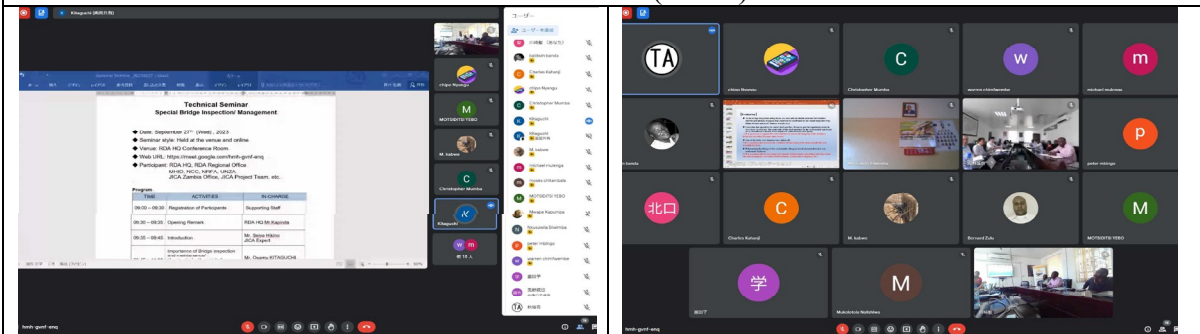
Bridge daily maintenance management meeting status

[Special bridge inspection]

- Special bridge maintenance management/technical seminar: 9/27 (Wed)



Seminar status (venue)



Seminar status (WEB screen)



Group photo after the seminar (participants at the venue)