REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION (DOTr)

TECHNICAL ASSISTANCE PROJECT TO ESTABLISH THE PHILIPPINE RAILWAY INSTITUTE

PROJECT COMPLETION REPORT

JULY 2024

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

ORIENTAL CONSULTANTS GLOBAL CO., LTD.
TOKYO METRO CO., LTD.
ALMEC CORPORATION

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ORIENTAL CONSULTANTS GLOBAL CO., LTD
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PRI Building and Functional Rooms

PRI Building

Station Mockup

Mockup Platform

Dynamic Train Simulator

Desktop Simulator

Delivery of Training by PRI

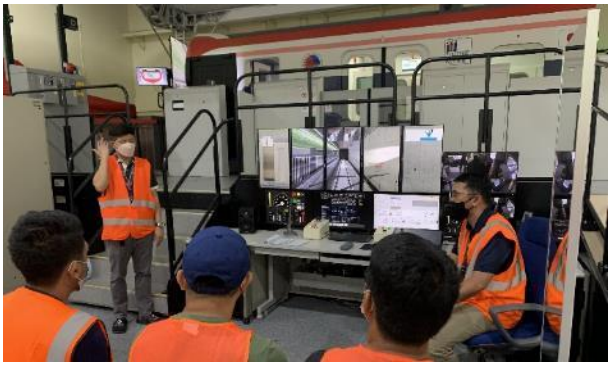
Refresher Training (Day 1)

Fundamental Training

Web Refresher Training

Practical Training

Practical Training



Training for Train Driving

Textbooks

(14 books registered in the National Library)

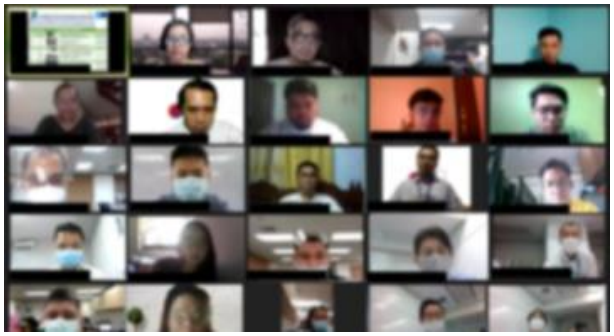
Training of Instructors in Japan

Training in Japan

Training in Japan

Training in Japan

Training in Japan

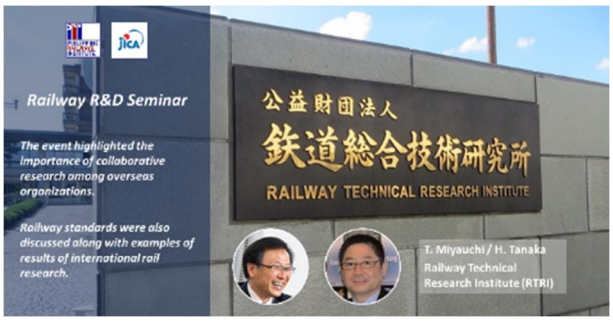


Supplemental Training (web-based)

Supplemental Training (web-based)

Special Events

Japanese Prime Minister's Visit to PRI



R&D Seminar

Expert Panel Meeting

Philippine Railway Conference


TIMELINE
PHILIPPINE RAILWAYS INSTITUTE
May 2018
PROJECT KICKOFF
JICA
Concept Making / Institutional Designs / Hiring of Prospective Instructors / Curriculum Development
CURRICURUM APPROVED
As the basis for training programs and textbooks
Feb. 2019
Training in Japan (Jul. & Sep. 2019)
Pilot RT Batch 1 (Oct. 2019)
Nov. 2019
EXECUTIVE ORDER No.96 SIGNED
To establish PRI
IRR BECAME EFFECTIVE
Web RT (Since 2020)
2020 -
COVID19 PANDEMIC
FUNDAMENTAL TRAINING STARTED
Inviting from various organizations & individuals
Jun. 2021
Fundamental Training (Jun. 2021 -)
Dynamic Simulator (May. 2022)
Feb. 2022
DRIVE SIMULATORS INTRODUCED
Procurement under Japan's grant-aid project
2 months
Desktop Simulators (May. 2023)
Training in Japan (Sep.-Dec. 2022)
FT COURSE FOR SMC-MRT7 STARTED
For commercial train driving and OCC controllers
Jul. 2023
Instructors (Classes 1, 2, & 3)
FT Cycle 7 (Jul.-Sep. 2023)

JCC Schedule

Joint Coordination Committee Meeting #1	August 30th, 2018
Joint Coordination Committee Meeting #2	February 28th, 2019
Joint Coordination Committee Meeting #3	February 17th, 2020
Joint Coordination Committee Meeting #4	March 18th, 2021
Joint Coordination Committee Meeting #5	April 20th, 2022
Joint Coordination Committee Meeting #6	February 21st, 2023
Joint Coordination Committee Meeting #7	October 23rd, 2023
Joint Coordination Committee Meeting #8	MAY 20th, 2024

Schedule of Other Meetings

Research &Development Seminar #1	March 9th, 2021
Research &Development Seminar #2	March 22nd, 2022
Expert Panel Meeting #1	June 15th, 2021
Expert Panel Meeting #2	October 18th, 2021
Expert Panel Meeting #3	October 3rd, 2022
The 1st Philippine Railway Conference	October 25th, 2023
Rail Digital Transformation Seminar	January 30th, 2024

Schedule of Training in Japan

Training in Japan #1	July 7th to 13th, 2019
Training in Japan #2	September 8th to 14th, 2019
Online Training (Supplemental)	December 1st, 2020 to February 26th, 2021 and March 11,2021 (Wrap-up Session)
Training in Japan #3	October 3rd to December 1st, 2022
Training in Japan #4	March 11th to March 22nd 2024

ABBREVIATION

AFD	Administration and Finance Division of PRI
AR	Augmented Reality
BP	Basic Principles
C/P	Counterpart
CAD	Certification & Accreditation Division
CDT	Capacity Development Training of PRI
CHED	Commission of Higher Education
COVID-19	Coronavirus
CSC	Civil Service Commission
CTD	Commercial Train Driving
DAC	Development Assistance Committee
DepEd	Department of Education
DO	Department Order
DOTr	Department of Transportation
DP	Development Partner
DX	Digital Transformation
ED	Executive Director
EO	Executive Order
EPM	Expert Panel Meeting
FT	Fundamental Training
GOP	The Government of the Philippines
HRD	Human Resource Development
HQ	Headquarters
IRR	Implementing Rules and Regulation
JCC	Joint Coordination Committee
JET	JICA Expert Team
JICA	Japan International Cooperation Agency
JTTRI	Japan Transport and Tourism Research Institute
LMS	Learning Management System
LRMC	Light Rail Manila Corporation
LRTA	Light Rail Transit Authority
MLIT	Ministry of Land Infrastructure, Transport and Tourism
MMSP	Metro Manila Subway Project

MMUTS	Metro Manila Urban Transportation Integration Study
MR	Mixed Reality
MRT	Mass Rapid Transit
MSM	Major Stakeholder Meeting
NSCR	North-South Commuter Railway
NSS	National Spatial Strategy
OFW	Overseas Filipino Worker
OJT	On the Job Training
OIC	Officer in Charge
OPEX	Operating expenditures
PDM	Project Design Matrix
PMO	Project Management Office
PNR	Philippine National Railways
PO	Plan of Operation
PQF	Philippine Qualification Framework
R&D	Research & Development
RDD	Research & Development Division of PRI
ROSH	Railway occupational safety and health
PRC	Professional Regulation Commission
PRI	Philippines Railways Institute
PRTC	Philippine Railway Training Center
QR	Quick Response
R/D	Record of Discussion
RO	Railway Operator
RT	Refresher Training
RTRI	Railway Technical Research Institute
SDG	Sustainable Development Goal
SMC	San Miguel Corporation
ST	Systems Training
TD	Training Division of PRI
TESDA	Technical Education and Skills Development Authority
ToT	Training of Trainer
TSP	Third Party Service Provider
TVET	Technical Vocational Education Training
VR	Virtual Reality

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PROJECT COMPLETION REPORT

I. Basic Information of the Project

1 Country

Republic of the Philippines

2 Title of the Project

Technical Assistance Project to Establish the Philippine Railway Institute

3 Duration of the Project (Planned and Actual)

Planned : April 2018 to March 2023 (according to the R/D)

Actual : May 2018 to June 2024

4 Background (from Record of Discussions(R/D))

4-1 Transport Sector in Metro Manila

In Metro Manila of the Philippines, the population has rapidly increased by nearly 1.6 times from 7.92 million in 1990 to 12.87 million in 2015 and the population density is 207.8 persons/ha. Metro Manila is the nation's biggest base for economic activities, which is the area for concentration of 13 % of the nationwide population and 40 % of GDP respectively. Additionally, Mega Manila consisting of Metropolitan Manila and three adjoining provinces has a rapidly growing population that has risen from 12.93 million to 25.77 million in the same period, and thereby has been increasing in city size.

In Mega Manila, development of transit system network is delayed and operational areas covered by the three LRT lines are limited with the total length of 50km.

In the southern area of Metro Manila, the Philippine National Railway (PNR) operates approximately 28 km-section from Tutuban in Manila to Alabang in Muntinlupa of the non-electrified line with low frequency as a commuter line. The section from central area of Metro Manila to Malolos in the north has increasing residential population, while a railway service in the north of Metro Manila is yet to be made available. The residents in the north of Metro Manila commute to the center of Metro Manila along expressway by bus, jeepney, private vehicle, etc. Traffic congestion from expressway exit in Caloocan to the central area of Metro Manila with the vehicle speed of less than 30 km/h in a whole day causes major problems.

As described above, the serious traffic congestion in Metro Manila becomes the bottleneck for smooth movement of passengers and goods. The social cost caused by the traffic jam was estimated to reach 2.4 trillion yen per year, which is one of reasons reducing international economic competitiveness of the Philippines. Therefore, it is an urgent issue to ensure large-scale public transportation connecting the north region and the south one in Mega Manila including Metro Manila.

4-2 History of JICA Assistance

Under the above mentioned circumstances the government of the Philippines has implemented the construction of the ring road No. 4 and the grade separation involving the ring road No. 5 on the basis of the urban development plan and the transportation network plan (target year of both: 2015) formulated in the Metro Manila Urban Transportation Integration Study (MMUTS) conducted by JICA. Implementation of the large-scale public transportation network connecting selected areas in north-south direction across Metro Manila is given the highest priority, especially the North-South Commuter Railway Project (Malolos to Tutuban) (hereinafter called as NSCR), in the Roadmap for Transport Infrastructure Development for Metro Manila and its Surrounding Areas (Region III & Region IV-A) (2014) (hereinafter called as the “Roadmap Study”) which JICA assisted in preparing and then the government of the Philippines approved.

The government of the Philippines and JICA signed the loan agreement for the NSCR in 2015 and for the Metro Manila Subway Project (Phase 1) (I) (hereinafter called as the “Subway Project”) in 2018, and JICA has been assisting for the NSCR and the Subway Project. In addition, JICA has implementing the North-South Railway Project-South Line (Commuter) and the Malolos-Clark Railway Project.

4-3 Need for the Project

Since large-scale railway projects in Metro Manila are in progress, development of sustainable training system for building capacities of operation and maintenance personnel is in urgent need. The Government of the Philippines (GOP) thereby confirmed to establish the Philippines Railways Institute (PRI) functioning as the body to deliver trainings and regulate rail personnel development. In July 2017, the GOP asked JICA to provide a technical assistance program toward establishment of the PRI.

This project aims to assist establishment of the PRI and building its operational capacity with the vision to create a platform for training delivery and regulation of rail personnel

development along with the construction projects.

The Record of Discussion for the Project (the R/D) was signed on Jan. 18th, 2018.

5 Overall Goal and Project Purpose (from Record of Discussions(R/D))

Overall Goal :

The railway systems in the Philippines become more reliable and efficient.

Project Purpose :

PRI provide skilled personnel with railway operators in the Philippines.

6 Implementing Agency

Department of Transportation (DOTr)

II. Results of the Project

1 Results of the Project

1-1 Input by the Japanese side (Planned and Actual)

Planned	Actual
1. Experts Total 26 expert positions (tentative) - Project Manager (1) - PRI Operations Leader (1) - Internal rules for operation 1 (General affairs, human resources) (1) - Internal rules for operation 2 (Accounting, Finance, Procurement, Asset management) (1) - Training Planner (1) - R&D Planner (1) - Training part Leader (1) - Safety (3) - Station Operation (2) - Train Operation (3)	**1. Experts** Total 40 expert positions - Project Manager (1) - Chief Advisor (1) - Institutional & Organizational Development (1) - Internal Rules (General Affairs & HR) (1) - Internal Rules (Accounting, Finance, Procurement, Asset Management) (1) - Regulatory Systems (3), - Railway Research & Development (2) - PR Strategy and IT Infrastructure (1) - Training Leader (1) - Safety (2) - Operational Safety(1)

Planned	Actual
- Civil, Track and Architecture (3) - Rolling Stock (3) - Electrical (4) - Coordinator (1)	- Simulator Training (1) - Station Operation (2) - Train Operation (3) - Civil, Track and Architecture ~~(4~~5) - Rolling Stock (3) - Electrical Systems (~~6~~5) - Railway Business Model (1) - Railway Policy & Strategy (1) - Digital Transformation (~~2~~3) - Coordinator (1)
2. Training in Japan 2-3 instructors per field (in total 28 instructors) 2-3 supervisors from existing lines (excluding Line1)	**2. Training in Japan** #1. 14 Instructors #2. 12 Instructors #Online.25 Instructors #3.19 Instructors #4. 15 admin staffs and Instructors
3. Equipment Equipment necessary for the implementation of the Project excluding the equipment procured by other project (to be determined through the Project).	**3. Equipment** Laptops for coordinator and secretary (2), copier machines (2), Tripod (2), laptop for video editing (1), video editing software (9), video camera (1), DX product for trial VR Goggles (8), Laptops (8), Routers (8), Software for VR (Sub-scription service for VR contents) (8) (See Annex 1. 4) List of Equipment)
4. Expense - Japanese-English Translation - Local experts and consultants if necessary - Secretory for Experts - Others (survey, car rental, etc.) for Experts	**4. Expense** - Japanese-English Translation - Local Experts - Secretary for Experts - Others (Car rental, etc.) for Experts - Supplemental Training (to supplement the postponed training in Japan due to COVID-19)
	5. Expert Panel Meeting - To dispatch additional Japanese experts and

Planned	Actual
	make all necessary arrangements for them - To bear all cost of dispatching additional Japanese experts - To share Japanese knowledge and experience on each subject/topic - To give advice to PMO staff on preparations and operations of each workshop

1-2 Input by the Philippine side (Planned and Actual)

Planned	Actual

1. Assignment of Counterpart
Personnel for the DOTr PMO
(At least 20 persons)
- Leader (1)
- PRI operations: (4)
  - Operation (2)
  - Training Plan (1)
  - R&D Plan (1)
- Training Part Leader (1)
- Safety (2)
  - Operational Safety (1)
  - Labor Safety (1)
- Station Operation (2)
  - Ticket seller & customer service (1)
  - Platform security (1)
- Train Operation (2)
  - Safety & Operation Rules (1)
  - Operation theory & Methodology (1)
- Civil, Track and Architecture (3)
  - Civil (1)
  - Track (1)
  - Architecture (1)
- Rolling Stock (2)
	1. Assignment of Counterpart
	Personnel for the DOTr PMO
	(As of JCC8, 46 persons are deployed.)
	- Office of the Executive Director (3)
	- Administrative & Finance (3)
	- Certification and Accreditation (4)
	- Research and Development (7)
	- Training Delivery (29)
	  - Safety (6)
	  - Station Operation (4)
	  - Train Operation (3)
	  - Civil, Track and Architecture (7)
	  - Rolling Stock (3)
	  - Electrical Facilities (5)

Planned	Actual
- Body and Machinery (1) - Electrical Equipment (1) - Electrical Facilities (3) - Signaling & Telecom (1) - Electricity Transformation (1) - Electrical Facilities (1) * Assignment of counter part depends on the volume of work.	
2. Provision of Facilities for the Project Implementation - Project Office - Working Equipment	**2. Provision of Facilities for the Project Implementation** - Project Office at the Columbia Tower, Ortigas Avenue - Working Equipment including desks, chairs, computers, electronic equipment, tables, bookcases, shelves and partitions
3. Expense - Local cost for personnel - Cost for office rent and equipment. - Other expenses: - For research, travelling, training, other activities	**3. Expense** - Local cost for personnel - Cost for office rent and equipment. - Other expenses: - For research, travelling, training, other activities
	4. Expert Panel Meeting - To assign PMO staff to perform functions of the secretariat - To bear all cost of having workshops - To invite local experts & make all necessary arrangements for them - To prepare and deliver a full report by the secretariat
	5. Institutional Memory - PRI, as the attached agency of DOTr, will preserve its institutional memory by introducing onboarding strategy and/or employee retention plan, so that the capacity developed under the Project will

Planned	Actual
	continue to be maintained.
	6. Office and Training Venues - DOTr will help improve and/or address concerns if PRI faces with the difficulties to conduct its trainings and other mandates due to inappropriate office environment, absence of training venues, and insufficiency of other resources.

1-3 Activities (Planned and Actual)

Planned	Actual
(Activity 1) **Creating PRI as a Statutory Body** (Activity 1-1) Review the PRI Proposal and Update the Latest Status	**(Activity 1)** **Creating PRI as a Statutory Body** (Activity 1-1) Finished the review of the PRI proposal, namely the Technical Report on establishment of the Philippine Railway Institute (JICA), and updated the latest status along with the meetings with various stakeholders. (NO change from the planned activity)
(Activity 1-2) Design PRI Organization Structure and Functions	(Activity 1-2) Designed the PRI organization structure and functions, consisting of four (4) functional divisions under the Executive Director and the Deputy Executive Director, namely Research & Development Division (RDD), Certification & Accreditation Division (CAD), Training Division (TD), and Administration and Finance Division (AFD). (NO change from the planned activity)
(Activity 1-3) Define Roles, Functions and Powers of PRI	(Activity 1-3) Defined the roles, functions, and powers of PRI, which were already incorporated in the singed EO and the Implementing Rules

Planned	Actual
	and Regulations (IRR). The EO came into effect in December 2019, while the IRR was issued in the end of March 2020. (NO change from the planned activity)
(Activity 1-4) Develop Blueprint for HR Development of Railway Sector	(Activity 1-4) Developed a blueprint for Human Resources Development (HRD) of the railway sector, which forms the basis of the PRI business plan. According to the latest estimate, rail workforce trained by PRI will reach 20,000 in 2030 (16,000 for new lines and 4,000 for existing lines). PRI's business plan has been updated at every JCC meeting. (NO change from the planned activity)
(Activity 1-5) Prepare Bylaws and Internal Rules	(Activity 1-5) Had the EO and IRR signed (as equivalent to bylaws and ministerial ordinances). Most of the subsequent issuances including Circulars and Internal Orders are issued. (NO significant change from the planned activity. Only not-urgent circulars remain incomplete.)
(Activity 1-6) Formulate Mid- to Long-term Business Plan	(Activity 1-6) Formulated a mid- to long-term business plan of PRI, including its organization, management system, manpower requirements, operation plan, marketing plan, and financial plan. Also, developed a business roadmap which lays out a path toward sustainable growth with higher training objectives. Operating expenditures (OPEX) and training fees are proposed along with the estimate of cost-of-service and cost recovery ratio. PRI's potential sources of income and funds for trainees were studied. (NO change from the planned activity)

Planned	Actual
(Activity 1-7) Make Best Use of New PRI Facilities (after Commissioning) (Activity 1-8) Improve PRI Operations and Performance	(Activity 1-7) Started training delivery with the dynamic and desktop simulators for train driving on a regular basis. Delivery of other training facilities and equipment, including PRI building, training equipment for civil engineering and E&M systems, is in progress by respective contractors of the MMSP Project. (The Project could not start regular training with PRI's own training facilities and equipment for delay in the schedule of MMSP development project largely due to difficulties in land acquisition.) (Activity 1-8) Continuously provided necessary assistance to improve PRI operation and performance until this reporting period, even without the training facilities and equipment other than the train simulators. (The Project could not start regular training with PRI's own training facilities and equipment for delay in the schedule of MMSP development project largely due to difficulties in land acquisition.)
(Activity 2) **Developing Legal Basis and Guidelines for Rail Personnel Development** (Activity 2-1) Establish Training Certification Program	**(Activity 2)** **Developing Legal Basis and Guidelines for Rail Personnel Development** (Activity 2-1) Established the framework of training certification program, which are being revised to align with the Philippine Qualification Framework (PQF) in response to the comments from major stakeholders. Also, developed procedures and guidelines for practical application as part of the Circulars and Orders.

Planned	Actual
	(NO change from the planned activity)
(Activity 2-2) Develop Driver Licensing System	(Activity 2-2) Incorporated the driver certification system (instead of driver licensing system, as a Republic Act will be required for PRI to equip licensing power) as part of the IRR. Procedures and guidelines for practical application are specified in the Circulars and Orders. Elaborated types of certificates (i.e., commercial, non-commercial and depot drivers), qualifications and requirements (including physical and neuropsychological fitness), standards of issuance and renewal. (NO significant change from the planned activity. Driver license just turned to be driver ID.)
(Activity 2-3) Introduce Regulatory Regimes for HR Development	(Activity 2-3) Drafted the framework of regulatory regimes for HRD, which was generally accepted in the 1st JCC and already forms a part of the EO and the draft IRR. Actual procedures and guidelines for practical application are specified in the Circulars and Orders. (NO change from the planned activity)
(Activity 2-4) Develop Guidelines for Training of Rail Personnel	(Activity 2-4) Had the Circulars/Orders relevant to the implementation of the Refresher Training and Fundamental Training signed, including its online delivery during the pandemic, signed by Usec. Lontoc. Also, drafted the guidelines for the Systems Training and accreditation of external training providers, which are in the process of approval as of this reporting period. (NO change from the planned activity)
(Activity 2-5) Draft Legal Basis and Organization	(Activity 2-5) Had the EO and IRR signed as the

Planned	Actual
Structure of Regulators	legal basis for PRI to become a regulator for HRD in the railway sector. Since the legal basis for other regulators on railway are out of the jurisdictions of PRI, the regulatory regime as a whole should be discussed in the subsequent Phase 2 assistance, if required. (NO change from the planned activity)
(Activity 3) **Developing Training Plans and Materials** (Activity 3-1) Conduct Needs Assessment for Rail Personnel Development	**(Activity 3)** **Developing Training Plans and Materials** (Activity 3-1) Conducted needs assessment for HRD in the railway sector and identified diverse needs for training. High-level officials put particular emphasis on fostering productive disciplines and good corporate culture in the industry. PRI training should also reach direct service providers including maintenance contractors, and security guards. (NO change from the planned activity)
(Activity 3-2) Develop Training Modules and Curriculums	(Activity 3-2) Developed training curricula, taking into account the training needs, and already obtained approval in the 2nd JCC meeting. Based on the approved curricula, published training materials for Refresher and Fundamental Training. (NO change from the planned activity)
(Activity 3-3) Prepare Training Materials and Instructor’s Manuals	(Activity 3-3) Prepared and continued to refine and improve the training materials based on trainees' feedback, which include textbooks, training presentations and instructor's manuals, used for Refresher Training and Fundamental Training. (NO change from the planned activity)

Planned	Actual
(Activity 3-4) Propose Training Facilities and Equipment to Introduce	(Activity 3-4) Made a comprehensive review about the proposed training facilities and equipment to be installed at the PRI premise. Training plans by use of new facilities and equipment will be detailed in the subsequent Phase 2 assistance, based on the discussions of the commissioning period and operational readiness in the JCC7. (NO change from the planned activity)
(Activity 4) **Delivering Regular Training Courses by PRI Instructors** (Activity 4-1) Determine Requirements of PRI Instructors & Qualifications	**(Activity 4)** **Delivering Regular Training Courses by PRI Instructors** (Activity 4-1) Determined competencies of PRI instructors and applicant qualifications in September 2018 for the Department of Transportation (DOTr) to start hiring. (NO change from the planned activity)
(Activity 4-2) Recruit Prospective PRI Instructors	(Activity 4-2) Recruited the sufficient number of PRI Instructors. Currently, forty six (46) counterpart personnel are deployed. PMO continues hiring activities to fill up the vacant posts to meet the larger training demand in future. (NO change from the planned activity)
(Activity 4-3) Deliver Trainings to Prospective PRI Instructors	(Activity 4-3) Delivered Trainings to Prospective PRI Instructors. They underwent several trainings, including trainings in Japan at Tokyo Metro, and “Training of Trainer (ToT)” sessions by TESDA, among others. (NO change from the planned activity)
(Activity 4-4) Deliver Trial Training Courses by PRI Instructors	(Activity 4-4) Delivered Trial Training Courses by PRI Instructors in 2019. Refresher training for the

Planned	Actual
	existing regular O&M employees started from October 2019 as agreed in the JCC2. Fundamental training for new recruits of existing lines started from June 2021 in general accordance with the original timeline. (NO change from the planned activity)
(Activity 4-5) Deliver Regular Training Courses by PRI Instructors	(Activity 4-5) Delivered Regular Training Courses by PRI Instructors, without own training facilities and equipment, while practical trainings are carried out at the existing railway operators. Seventy-three (73) batches of RT Course were executed as of May 2024, which already trained 2,867 persons (76.01%) and certified 1,671 persons (44.30%) out of the existing 3,772 persons. Nine (9) cycles of FT Course were completed. (NO change from the planned activity)
(Activity 5) **Monitoring Delivery of Training Facilities & Equipment** (Activity 5-1) Provide Specs of Facilities & Equipment to Design Team	**(Activity 5)** **Monitoring Delivery of Training Facilities & Equipment** (Activity 5-1) Reviewed the specifications of training facility and equipment prepared by the Design Team, and confirmed that PRI can provide all necessary trainings once they are delivered. (NO change from the planned activity)
(Activity 5-2) Liaise with GC for the Period of Construction & Procurement	(Activity 5-2) Kept stakeholders updated the progress on PRI construction and procurement programs in liaison with the General Consultant (GC) of the Metro Manila Subway Project (MMSP). (NO change from the planned activity)
(Activity 6)	**(Activity 6)**

Planned	Actual
Fostering Understanding of Rail Research Functions (Activity 6-1) Introduce Rail Research Activities and Contributions in Japan	**Fostering Understanding of Rail Research Functions** (Activity 6-1) Held the R&D seminars in March 2021, March 2022, and October 2023 where mandates and capabilities of Railway Technical Research Institute (RTRI) of Japan were introduced along with its research activities, international exchange, and involvement in technical standardization. Also, PRI visited RTRI and JTTRI (Japan Transport and Tourism Research Institute) during the final training in Japan in March 2024, where PRI learned the research organization, subjects and activities as the good reference for R&D activities under the PRI initiative. (NO change from the planned activity)
(Activity 6-2) Select and Prioritize PRI's Research Areas	(Activity 6-2) Selected and Prioritized PRI's Research Areas, which include i) Skills Framework for Railway Operation and Maintenance (Skills4Rail), ii) Railway occupational safety and health (ROSH) guidelines, iii) Unified coding system for maintenance reporting, and iv) Profiling of Train Drivers using Psycho-Aptitude Test. (NO change from the planned activity)
	(Activity 7) **Developing Policy Implications for Railway Masterplan** (Activity 7-1) Created a work plan for the Expert Panel Meeting (EPM) on urban railway masterplan, which was already incorporated in the meeting agenda; including keys for successful masterplan in Japan, key issues and challenges for masterplan development in

Planned	Actual
	Manila, and recommendations from the expert panel. (Added as the extra activity. See 3. History of PDM Modification.) (Activity 7-2) Made all the necessary coordination, including selection and appointment of the EPM members, preparatory coordination meetings in Japan with Japanese experts and JICA, a briefing session with the Philippine experts and the PRI officers in charge, and preparation of presentation materials, among others. Also, JET facilitated the online meeting together with the PRI OIC. (Added as the extra activity. See 3. History of PDM Modification.) (Activity 7-3) had a follow up session to give insights to the subsequent masterplan study, i.e. the identified requirements of the masterplan are (a) harmonized with plans from other agencies, (b) recognized by other government agencies and by the private sector, (c) spearheaded by the government, (d) maintained even when administrations change, and (e) coincided with the approval of projects. (Added as the extra activity. See 3. History of PDM Modification.)
	(Activity 8) **Recommending regulatory and management systems** (Activity 8-1) Created a work plan for the Expert Panel Meeting (EPM) on regulatory and management systems, which was already incorporated in the meeting agenda; including

Planned	Actual
	route evaluation criteria, financing and subsidy schemes for development of urban railways. (Added as the extra activity. See 3. History of PDM Modification.) (Activity 8-2) made all the necessary coordination, including selection and appointment of the EPM members, preparatory coordination meetings in Japan with Japanese experts and JICA, a briefing session with the Philippine experts and the PRI officers in charge, and preparation of presentation materials, among others. Also, JET facilitated the online meeting together with the PRI OIC. In addition, JET facilitated another meeting with the Ministry of Land Infrastructure, Transport and Tourism (MLIT) on the regulatory systems during the immersion training in Japan. (Added as the extra activity. See 3. History of PDM Modification.) (Activity 8-3) Had a follow up session to provide inputs to the institutional development, which are; route evaluation by the inter-agency taskforce with the various key performance indicators, and continuous research on innovative financing schemes. (Added as the extra activity. See 3. History of PDM Modification.)
	(Activity 9) **Defining Trusted Operator and Success Factors** (Activity 9-1) Created a work plan for the Expert Panel Meeting (EPM) on trusted operator, which was already incorporated in the meeting agenda; including sustainable development of railways

Planned	Actual
	and its effect, sustainable operations and maintenance (O&M) of railways, and recommendations for successful O&M in the Philippines. (Added as the extra activity. See 3. History of PDM Modification.) (Activity 9-2) Made all the necessary coordination, including selection and appointment of the EPM members, preparatory coordination meetings in Japan with Japanese experts and JICA, a briefing session with the Philippine experts and the PRI officers in charge, and arrangement of the meeting venues, among others. (Added as the extra activity. See 3. History of PDM Modification.) (Activity 9-3) Had a follow up session to make recommendations for successful O&M, which are; integrated operations of railway network, hierarchical transport network, seamless transfer, profitable business with commercial development, value capture and taxation strategy, performance control with operational KPIs, and sustainable financing schemes. (Added as the extra activity. See 3. History of PDM Modification.)

2　Achievements of the Project

2-1 Outputs and indicators

(Target values and actual values achieved at completion)

The Outputs of the Project are mostly accomplished, in spite of some challenges in

implementation (See III. 2. Key Factors Affecting Implementation and Outcomes.)

1) Output 1

PRI is established as an organization.

Level of Achievement : High

The Project successfully established PRI as the statutory organization with the necessary institutions, including the signed Executive Order (EO), Implementation Rules and Regulations (IRR), Circulars & Internal Orders (C&O). The number of staffs are fulfilled, as seen in the approved organization chart and the manpower profile of PRI, which is sufficient to undertake its mandates.

Target Value	Actual Value
Objectively Verifiable Indicators - Internal rules for operation of PRI are organized. (The target number of rules are not specified). - No of staffs are fulfilled. (Twenty (20) and Fifty-four (54) persons for PMO and instructors, respectively as the tentative estimate, according to the Annex 6 of the R/D) **Means of Verification** - Annual report of PRI - Approval letter for establishment of PRI from the authority	**Objectively Verifiable Indicators** - Internal rules for operation of PRI were organized. (Five (5) Circulars and seventy-five (75) Internal Order are already signed as of this reporting period. PRI is successfully being operated with the issued Circulars and Internal Orders.) - No of staffs were fulfilled. (Forty six (46) counterpart personnel out of fifty nine (59) positions already approved by the Department of Budget and Management (DBM) are deployed as of this reporting period. The number is less than the original estimate, but PRI faces no problem in undertaking its mandates.) **Means of Verification** - Signed Executive Order (EO) / Implementation Rules and Regulations (IRR) / Circulars & Internal Orders (C&O) - Approved Organization Chart and

Target Value	Actual Value
	Manpower Profile of PRI (Annual report of PRI does not contain any of the information necessary to verify the outputs, therefore deleted from the means of verification. The EO is the evidence for the establishment of PRI. IRR and C&O set out rules and regulations pertaining to PRI operations. The number of posts and fulfilment of the manpower can be seen in the approved Organization Chart and Manpower Profile of PRI.)

2) Output 2

Regulations and guidelines on the human resource capacity of railway operators in Philippine are established.

Level of Achievement : High

Regulations and guidelines on the human resource capacity of railway operators are established through the issued IRR, Circulars and Orders. The IRR to enable PRI to regulate Human Resources Development (HRD) of the railway sector already was issued in the end of March 2020. The substantial procedures and guidelines were established in the form of Circulars and Orders.

Target Value	Actual Value
Objectively Verifiable Indicators - Documents of regulations (Target number of regulations is not specified.)	**Objectively Verifiable Indicators** - Documents of regulations (The project successfully assisted the enactment of the regulations. The Implementing Rules and Regulations (IRR) of EO No. 96, 2019 establishes the PRI as the planning, implementing, and regulatory agency for human resources development in the railway sector, responsible for formulating guidelines, conducting training, certifying personnel, and enforcing laws and

Target Value	Actual Value
	regulations.)
- Documents of guidelines (Target number of guidelines is not specified.)	- Documents of guidelines (Guidelines were developed in the form of ten (10) Circulars, out of which five (5) Circulars are already signed. Three (3) circulars—namely systems training (ST) for train operations, ST for other sub-systems, and accreditation of external training centers—is in the approval process, the first two (2) of which are expected to be effective within 2024 and the third to be issued in 2025 while the other pending circulars are minor and not worth mentioning.)
- PRI gets accreditation from PRC and TESDA regarding certification for railway industry. (Target value is not specified.)	- * No longer required (It was concluded that accreditation from PRC and TESDA with regard to the certification for railway industry is not required. Therefore, excluded from the indicators.)
Means of Verification - Approval letter for the regulations - Internal approval evidence for guidelines from authorities - Approval letter for the accreditation from both PRC and TESDA	**Means of Verification** - Signed IRR / Internal Orders - Signed Circulars (Descriptions are changed to make clear what are the intended documents. The above documents can be treated as the evidence for enactment of regulations and guidelines.)

3) Output 3

Training module and materials are prepared.

Level of Achievement : High

The output 3 pertains to the development of training module and materials. The Project already obtained approval on training curricula in JCC2. Also, all the training materials

and manuals were developed and currently in use for Refresher and Fundamental Trainings. The textbooks, consisting of 14 books, were officially registered in the National Library. Instructors' manuals, forming the part of internal documents of PRI, are being updated from time to time by the respective instructors.

Target Value	Actual Value
Objectively Verifiable Indicators - Documents of training modules (Target number of modules is not specified.) - Textbooks (Target number of textbooks is not specified.) - Instructors' manual (Target number of manuals is not specified.) **Means of Verification** - Internal approval evidence for training modules and text books	**Objectively Verifiable Indicators** - Documents of training modules (The Project already obtained approval on training curricula in JCC2. The approved curricula, consisting of 9 competencies in 3 layers (core / departmental / specialized), form the basis for the official textbooks and instructors' manuals.) - Textbooks (The Project already developed the set of textbooks, consisting of 14 books, on Refresher and Fundamental Training Courses on Railway Operations and Maintenance. The textbooks were officially registered in the National Library.) - Instructors' manual (Instructors' manuals form the part of internal documents of PRI, which are being updated from time to time by the respective instructors to improve the quality of training delivery as part of the PRI's quality management cycle.) **Means of Verification** - Approved Carricula - Official Textbooks - Internal Documents (Manuals) (Minutes of the JCC2 meeting is the evidence for approval of training curricula. The evidence for

Target Value	Actual Value
	approval of textbooks can be seen from the fact that the official textbooks of PRI are stored in the National Library.)

4) Output 4

Trainings are regularly provided.

Level of Achievement : High

PRI regularly provides Refresher and Fundamental Trainings, securing the sufficient number, i.e. about forty (40) persons of instructors. They got certified by TESDA in February 2022, awarded with the Trainers Methodology Certificate for having completed the competency requirements under the Philippine Technical Vocational Education Training (TVET) Trainers Qualification System (PTTQS).

Target Value	Actual Value
Objectively Verifiable Indicators - No. of sufficient instructors is fulfilled. (Fifty-four (54) persons for instructors as the tentative estimate, according to the Annex 6 of the R/D)	**Objectively Verifiable Indicators** - No. of sufficient instructors is fulfilled. (About Forty (40) persons engage in training delivery as the instructors, which include 29 persons from the Training Division, 4 persons from the Certification and Accreditation Division and 7 persons from the Research and Development Division.)
- Instructors get certificate from TESDA after training in Japan. (Target value can be interpreted as Twenty-eight (28) instructors, which is the number of instructors to be trained in Japan as determined at JCC1.)	- Instructors got certified from TESDA after training in Japan. (All the PRI instructors got certified by TESDA in February 2022, awarded with the Trainers Methodology Certificate for having completed the competency requirements under the Philippine TVET Trainers Qualification System (PTTQS).)

Target Value	Actual Value
Means of Verification - Certificate from TESDA - Annual report of PRI (or other data prepared by PRI)	**Means of Verification** - Certificate from TESDA - Approved Organization Chart and Manpower Profile of PRI (Annual report of PRI does not contain any of the information necessary to verify the outputs, therefore deleted from the means of verification. The number of posts and fulfilment of the manpower can be seen in the approved Organization Chart and Manpower Profile of PRI.)

5) Output 5

Training facilities are properly installed.

Level of Achievement : Moderate

The Team, especially the experts from Tokyo Metro who have rich experience in actual development of training facilities and equipment, reviewed the specifications of training facilities and equipment prepared by the Design Team, thereby JET is confident that suitable training facilities and equipment will be delivered. As the PRI facilities and equipment are incomplete and still in the process of development / procurement as of this reporting period, level of achievement remains “Moderate”.

Target Value	Actual Value
Objectively Verifiable Indicators - Suitable facilities and equipment are planned to be installed. (Target value is not specified.)	**Objectively Verifiable Indicators** - Suitable facilities and equipment are planned to be installed. (JET, especially the experts from Tokyo Metro who have rich experience in actual development of training facilities and equipment, reviewed the specifications of training facilities and equipment prepared by the Design Team, thereby JET is confident that suitable training

Target Value	Actual Value
	facilities and equipment will be delivered. The final design specifications prove the same.)
Means of Verification - Annual report of PRI (or other data prepared by PRI)	**Means of Verification** - Design Specifications (Annual report of PRI does not contain any of the information necessary to verify the outputs, therefore deleted from the means of verification. Appropriateness of the designed training facilities and equipment can be verified through the design specifications, which the Design Team finalized for procurement.)

6) Output 6

Function and Duty of Rail R&D in the Philippines are prescribed.

Level of Achievement : High

The Project already held three (3) times of the R&D seminars with the attendance of major stakeholders from rail industry and academia. PRI consolidated a proposal in the form of action plan, based on the results of past seminars and the ranges of training programs in Japan.

Target Value	Actual Value
Objectively Verifiable Indicators - No. of R&D activities increases. (Target number of R&D activities is not specified.)	**Objectively Verifiable Indicators** - No. of R&D activities increased. (PRI already came up with the R&D subjects, which are; i) Skills Framework for Railway Operation and Maintenance (Skills4Rail), ii) Railway occupational safety and health (ROSH) guidelines, iii) Unified coding system for maintenance reporting, and iv) Profiling of Train Drivers using Psycho-Aptitude Test. They are already being implemented with the expected

	period of completion in 3rd and 4th Quarter of 2024. Transport policies, especially safety regulations by the Government would be an area of PRI's R&D subjects.)
Means of Verification - Document of the plan for commencement of R&D - Annual report of PRI (or other data prepared by PRI)	**Means of Verification** - Mandates of R&D Division of PRI - List of R&D Subjects (Annual report of PRI does not contain any of the information necessary to verify the outputs, therefore deleted from the means of verification. The prescribed mandates of R&D Division of PRI and the list of proposed R&D subjects well represents the output.)

7) Output 7

Policy implications toward sustainable railway development are provided.

Level of Achievement : High

The Project created a work plan for the Expert Panel Meeting (EPM) on urban railway masterplan, which was already incorporated in the meeting agenda; including keys for successful masterplan in Japan, key issues and challenges for masterplan development in Manila, and recommendations from the expert panel.

The Team made all the necessary coordination, including selection and appointment of the EPM members, preparatory coordination meetings in Japan with Japanese experts and JICA, a briefing session with the Philippine experts and the PRI officers in charge, and preparation of presentation materials, among others. Also, the Team facilitated the online meeting together with the PRI OIC.

DOTr/PRI had a follow up session to give insights to the subsequent masterplan study, i.e. the identified requirements of the masterplan are harmonized with plans from other agencies, recognized by other government agencies and by the private sector, (c) spearheaded by the government, maintained even when administrations change, and coincided with the approval of projects.

Target Value	Actual Value
	Objectively Verifiable Indicators - Recommendations of Expert Panel are accepted by DOTr. (DOTr/PRI concluded the insights to the subsequent masterplan study, i.e. the identified requirements of the masterplan are (a) harmonized with plans from other agencies, (b) recognized by other government agencies and by the private sector, (c) spearheaded by the government, (d) maintained even when administrations change, and (e) coincided with the approval of projects.) **Means of Verification** - Minutes of the Expert Panel Meetings (EPM #1 and EPM#2)

8) Output 8

Recommendations for safety regulatory systems on railway operations are made.

Level of Achievement : High

The Project created a work plan for the Expert Panel Meeting (EPM) on regulatory and management systems, which was already incorporated in the meeting agenda; including route evaluation criteria, financing and subsidy schemes for development of urban railways.

The Team made all the necessary coordination, including selection and appointment of the EPM members, preparatory coordination meetings in Japan with Japanese experts and JICA, a briefing session with the Philippine experts and the PRI officers in charge, and preparation of presentation materials, among others. Also, JET facilitated the online meeting together with the PRI OIC. In addition, JET facilitated another meeting with the Ministry of Land Infrastructure, Transport and Tourism (MLIT) on the regulatory systems during the immersion training in Japan.

DOTr/PRI had a follow up session to provide inputs to the institutional development,

which are; route evaluation by the inter-agency taskforce with the various key performance indicators, and continuous research on innovative financing schemes.

Target Value	Actual Value
	Objectively Verifiable Indicators - Recommendations of Expert Panel are accepted by DOTr. (DOTr/PRI concluded the inputs to the institutional development, which are; route evaluation by the inter-agency taskforce with the various key performance indicators, and continuous research on innovative financing schemes.) **Means of Verification** - Minutes of the Expert Panel Meetings (EPM#2)

9) Output 9

Definitions of trusted operator and success factors for safe and reliable operations are made clear.

Level of Achievement : High

The Project created a work plan for the Expert Panel Meeting (EPM) on trusted operator, which was already incorporated in the meeting agenda; including sustainable development of railways and its effect, sustainable operations and maintenance (O&M) of railways, and recommendations for successful O&M in the Philippines.

The Team made all the necessary coordination, including selection and appointment of the EPM members, preparatory coordination meetings in Japan with Japanese experts and JICA, a briefing session with the Philippine experts and the PRI officers in charge, and arrangement of the meeting venues, among others.

DOTr/PRI had a follow up session to make recommendations for successful O&M, which are; integrated operations of railway network, hierarchical transport network, seamless transfer, profitable business with commercial development, value capture and taxation strategy, performance control with operational KPIs, and sustainable financing schemes.

Target Value	Actual Value
	Objectively Verifiable Indicators - Recommendations of Expert Panel are accepted by DOTr. (DOTr/PRI made recommendations for successful O&M, which are; integrated operations of railway network, hierarchical transport network, seamless transfer, profitable business with commercial development, value capture and taxation strategy, performance control with operational KPIs, and sustainable financing schemes.) **Means of Verification** - Minutes of the Expert Panel Meetings (EPM#3)

2-2 Project Purpose and indicators

(Target values and actual values achieved at completion)

Level of Achievement : High

The primary purpose of the Project is to provide skilled personnel by PRI in cooperation with the railway operators in the Philippines. The Refresher Training (RT) completion rate reached 74.6%, while certified personnel reached 42.92% of total O&M workforce as of this reporting period. The number of qualified trainees is now 1,619 and it will continue to grow by the joint efforts of PRI, ROs and other service providers. As such, PRI keeps providing skilled personnel with railway operators and third party service providers in the Philippines.

Target Value	Actual Value
Project Purpose PRI provide skilled personnel with railway operators in the Philippines (Target number of skilled personnel is not specified.)	**Project Purpose** PRI keeps providing skilled personnel with railway operators and third party service providers in the Philippines (PRI achieved the target, i.e. over 75% of total

Target Value	Actual Value
	O&M workforce is trained by PRI in May 2024. The number of qualified trainees is now 1,670 and it will continue to grow by the joint efforts of PRI, Railway Operators (ROs) and Third Party Service Providers (TSPs). 8 cycles of Fundamental Training (FT) Course, as well as the weekend cycle, were completed as of May 2024.) (See IV. 2 "Plan of Operation and Implementation Structure of the Philippine side to achieve Overall Goal" for the prospects of full accomplishment.)
Objectively Verifiable Indicators - No of qualified trainees are increased.	**Objectively Verifiable Indicators** - No of qualified trainees are increased. (The number of qualified trainees is now 1,670 and it will continue to grow by the joint efforts of PRI, the Railway Operators (ROs) and the Third Party Service Providers (TSPs).)
Means of Verification - Annual report of PRI (or other data prepared by PRI)	**Means of Verification** - PRI's internal database on training delivery (Annual report of PRI does not contain any of the information necessary to verify the outputs, therefore deleted from the means of verification. Instead, means of verification should rely on the internal database on training delivery, which was developed by PRI to monitor the progress of certification.)

3 History of PDM Modification

3-1 Agreed in JCC3 dated on 17 February 2020

Addition of Three (3) outputs and activities

Reason for the Amendment : At the meeting between JICA and DOTr on October 7th

2019, the Secretary of DOTr requested JICA to support creation of enabling environment in the railway sector with the aim to attract many railway operators to participate in the market.

At 9th meeting of the Japan-Philippines Joint Committee on Infrastructure Development and Economic Cooperation on December 6th, 2019, the Government of Philippine and the Government of Japan agreed that JICA will dispatch Japanese railway experts to the Philippines to help develop the visions of future regulatory and management regimes, taking the keen interests of Japanese Railway Operators in the Philippine's operation and maintenance market into consideration.

Based on the above, JICA and DOTr agreed at the 3rd Joint Coordination Committee (JCC) Meeting held on February 17th 2020 that the Record of Discussions for Technical Assistance Project to Establish the Philippine Railway Institute signed on January 18th, 2018 would be amended.

Accordingly, three (3) outputs and activities are added.

Output

Before	After
	Output 7　Policy implications for urban railway masterplan are provided.
	Output 8　Recommendations for safety regulatory systems on railway operations are made.
	Output 9　Definitions of trusted operator and success factors for safe and reliable operations are made clear.

Activity

Before	After
	Activity 7　Developing policy implications for urban railway masterplan Activity 7-1　Create a work plan for workshops Activity 7-2　Coordinate and facilitate workshops as Secretariat Activity 7-3　Give insights to the subsequent masterplan study

Before	After
	Activity 8 Recommending regulatory and management systems for safe and efficient transport services Activity 8-1 Create a work plan for workshops Activity 8-2 Coordinate and facilitate workshops as Secretariat Activity 8-3 Provide inputs to the institutional development for regulatory reforms on railways
	Activity 9 Defining trusted operator and success factors for safe and reliable operations Activity 9-1 Create a work plan for workshops Activity 9-2 Coordinate and facilitate workshops as Secretariat Activity 9-3 Incorporate the results to the selection/appointment of railway operators.

Additional Input (with respect to the expanded scope)

Japan Side

- Additional Japanese experts (at least one (1), namely Railway Transport Policy) including all necessary arrangements
- All cost of dispatching additional Japanese experts

Philippine Side

- PMO staff as the secretariat
- All cost of having workshops
- Local experts including all necessary arrangements

3-2 Agreed in JCC4 dated on 18 March 2021

Addition of Supplemental Training

Reason for the Amendment : It was assumed in the PDM that PRI instructors provide regular training to the trainees, after the “Training of Instructors” program in Japan (intensive training for two months at Tokyo Metro).

Due to the impact of COVID-19, the Training of PRI Instructors in Japan, which was scheduled for September to December 2020, has been postponed to the 2021 fiscal year. Meanwhile, from April 2021, PRI planned to commence delivery of regular training (called as Fundamental Training (FT)) for new employees.

Therefore, as an alternative measure to the Training of PRI Instructors in Japan, it was agreed to conduct online training (hereinafter referred to as "Supplementary Training") for PRI instructors.

Before	After
	Supplemental Training - Japanese side provided the supplemental trainings in total of 82 hours in six (6) competencies with ninety-six (96) attendees from PMO, ROs, and academe.

Financial Operating Requirements of PRI

Reason for the Amendment :

According to the projection, 80% of the operating expenses of the PRI need to be subsidized through budget provisions from the DOTr, and only 20% is recovered through the training fees collected. There is a need for policy direction as the basis to determine the subsidy and secure budget for PRI operation.

JCC members agreed at the 4th JCC Meeting that the current projected financial operating requirement of PRI should be specified pursuant to the general recognition in the Record of Discussion (R/D) and based on the outputs of the JCC4, with the aim to add another level of assurance in the budget security.

The projection as of JCC4 should be treated as the baseline information, which would get updated at every JCC in accordance with the progress of relevant railway projects.

Before	After
I. Summary 1. Progress 2. Delay of Work Schedule and/or Problems (if any) 3. Modification of the Project Implementation Plan 4. Preparation of the Government of the	**I. Summary** 1. Progress 2. Delay of Work Schedule and/or Problems (if any) 3. Modification of the Project Implementation Plan 4. Preparation of the Government of the

Before	After
Philippines toward after completion of the Project	Philippines toward after completion of the Project
II. Project Monitoring Sheet I&II	**II. Project Monitoring Sheet I&II**
	III. Financial Operating Requirements of PRI (Estimate as of JCC X)

3-3 Agreed in JCC6 dated on 21 February 2023

Project Extension

Reason for the Amendment :

- In order to achieve the project output namely "5. Installation of training facilities are properly supported", project duration needs to be extended.
- In order for PRI to utilize the train simulators, which was still uncertain at the time of formulation of the Project but already delivered in June 2022, supports from the experts need to be extended.
- In order to establish the regulatory systems on human resource and capacity development, the remaining circulars and orders need to be developed with the extended assistance of experts.
- In order to adapt the recent development of DX technologies and create additional values at the training of PRI, additional inputs from the experts are required.

Before	After
Annex 1 Main Points Discussed	Annex 1 Main Points Discussed
1 Environmental & Social Considerations	1 Environmental & Social Considerations
2 Basic Concept of PRI	2 Basic Concept of PRI
3 Pre-condition of the Project	3 Pre-condition of the Project
4 Project Description	4 Project Description
5 Implementation Structure	5 Implementation Structure
6 Project period, phasing and minimum target of output to step into next phase	6 Project period, phasing and minimum target of output to step into next phase
6-1 Project period will be 5 years from the	6-1 Project period will be 6 years and 1

Before	After
first arrival of the JICA Expert Tentatively April 2018 to March 2023 6-2 Phase 1 (Preparation Stage): April 2018 – Dec 2019 6-3 Phase 2 (Trial Training Stage): Jan 2020 – Dec 2021 6-4 Phase 3 (Regular Training Stage): Jan 2022 – Mar 2023	month from the first arrival of the JICA Expert May 2018 to June 2024 6-2 Phase 1 (Preparation Stage): May 2018 – Dec 2019 6-3 Phase 2 (Trial Training Stage): Jan 2020 – Dec 2021 6-4 Phase 3 (Regular Training Stage): Jan 2022 – May 2023 6-5 Phase 4 (Training Enhancement Stage): June 2023 – June 2024 6-5.1 Target of output - Trainings with real-size and desktop train simulators are established along with instructor manuals and conducted at least three (3) cycles. - The remaining circulars and orders with respect to assessment of railway operators (RO), guidelines for systems training, and accreditation of external training providers are developed. - Digital Transformation (DX) technologies are explored and a DX Action Plan is developed. 7 Input by DOTr 8 Undertaking of DOTr (1) DOTr will provide counterpart personnel which described in Annex 6 (PMO) and suitable office space with necessary equipment and secretariat services until the equipment installed in PRI at MMSP Valenzuela Depot. (2) PRI, as the attached agency of DOTr, will preserve its institutional memory by introducing onboarding strategy and/or employee retention plan, so that the

Before	After
	capacity developed under the Project will continue to be maintained. (3) DOTr will help improve and/or address concerns if PRI faces with the difficulties to conduct its trainings and other mandates due to inappropriate office environment, absence of training venues, and insufficiency of other resources. (4)– (11) 9 Report

3-4 Suggested by PRI in JCC7 dated on 21 February 2023

Alternative Project Goal Indicators

Reason for the Suggestion : The original goal indicators are, i) the number of fatal accident is reduced., and ii) the number of injury accident is reduced. However, PRI and the JICA Expert Team raised a question if such indicators properly reflect the performance of the PRI and the Technical Assistance Project, as accidents would occur not only because of the skills and knowledge of O&M personnel but also because of the deteriorated railway systems.

Accordingly, PRI suggested alternative goal indicators in JCC7 - such as reduced number of fatal accidents and injury accidents, reduced human error accidents/incidents, customer satisfaction rating, lost time to incident, incident handling, time to service recovery – to better reflect the performance of the Project. Availability of such data and information from the respective Railway Operators (ROs) is still unknown, as each RO has their own monitoring system on safety and reliability.

As discussed in the JCC, another way of measurements should be the results of feedback from the ROs and the trainees about their perceptions of training at PRI. Positive feedback from the ROs and the trainees should underpin the accomplishment of the overall goal of the project.

Finally, the JCC members concluded to remain the original indicators, as availability of data and information about the alternative indicators remain uncertain. Notwithstanding the foresaid, these alternative indicators should be evaluated if such

data and information will be made available in future.

Before	After
Overall Goal The railway systems in the Philippines become more reliable and efficient. **Objectively Verifiable Indicators** - No. of fatal accident is reduced. - No. of injury accident is reduced. **Means of Verification** - Annual Report of each Company	**Overall Goal** The railway systems in the Philippines become more reliable and efficient. **Objectively Verifiable Indicators** - No. of fatal accident is reduced. - No. of injury accident is reduced. **Means of Verification** - Interview Surveys - Performance Records of Each Company **<u>Alternative Indicators</u>** <u>(Not incorporated in the PDM. To be considered if such data and information will be made available)</u> - Feedback from Rail Operators & Service Providers - No. of fatal accident is reduced. - Reduced Human Error Accidents/Incidents - Customer Satisfaction Rating - No. of injury accident is reduced. - Incident Handling, Time to Service Recovery

4 Others

4-1 Results of Environmental and Social Considerations (if applicable)

The R/D stated as follows: With regard to the Section 10.1 of the "Basic Principles for Technical Cooperation" (BP), the Project is likely to have minimal adverse impact on the environment and society under the JICA Guidelines for Environmental and Social Considerations (April 2010).

Not Applicable

The Project did not directly involve any physical construction or procurement works that

may cause adverse impact on the environment and society.

4-2 Results of Considerations on Gender/Peace Building/Poverty Reduction, Disability, Disease infection, Social System, Human Wellbeing, Human Right, and Gender Equality (if applicable)

The R/D did not specify any requirements for consideration on Gender/Peace Building/Poverty Reduction, Disability, Disease infection, Social System, Human Wellbeing, Human Right, and Gender Equality. However, the Project led to relevant and effective outcomes for the following metrics.

Disability-inclusive outcomes	- PRI learned how to serve handicapped passengers during the training in Japan at Tokyo Metro. - PRI introduced a lecture on handling of handicapped passengers by use of the dynamic train simulator.
Gender-inclusive outcomes	- Gender inclusive employees account for 19.6 % at PRI, including the Executive Director.
Human-wellbeing outcomes	- PRI introduced mental health program at part of its talent retention plan (e.g. recognition of employees, team building) - PRI pays the greatest focuses on the occupational safety and health in its training courses.

4-3 Other Considerations

The Project led to relevant and effective outcomes for the following SDGs.

- (SDG4) Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
- (SDG9) Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- (SDG17) Strengthen the means of implementation and revitalize the global partnership for sustainable development.

III. Results of Joint Review

1 Results of Review based on DAC Evaluation Criteria

1-1 Relevance : High

1) General

The project addressed relevance by directly targeting the need for capacity building and skill development in the Philippine railway sector. Recognizing the importance of having a well-trained workforce to operate and maintain the country's expanding railway network, the establishment of PRI aimed to provide specialized training programs tailored to the needs of the industry. By addressing this specific need, the project demonstrated its relevance to the priorities of the Philippine government and the development goals of the country.

2) Ambisyon Natin 2040 and the Importance of the Railways Sector

The creation of the PRI is in line with the government's recognition of the transportation sector, particularly the railways industry, as a priority sector under **the Ambisyon Natin 2040**. The government aims to complement investments in this sector with appropriate human capital development.

3) Railway Projects in the Pipeline

JICA and the Philippine government are working closely to implement major railway projects that include the Metro Manila Subway, North-South Commuter Railway, the North-South Railway - South Line (Commuter) and the Malolos - Clark Railway, MRT3 Rehabilitation and Capacity Enhancement of Mass Transit Systems in Metro Manila (LRT 1 and 2), among others. Meanwhile, DOTr also works on other railways projects in the pipeline, including MRT7, MRT4, PNR Bicol, Subic-Clark Railway, Mindanao Railway, among others.

4) Meeting the Urgent Need for Human Capital Development

Since large-scale railway projects are in progress, development of sustainable training system for building capacities of operation and maintenance personnel is in urgent need. PRI plans to train approximately 15,000 railway operation and maintenance personnel for the existing and future railway lines.

JICA is also supporting the construction of the PRI building patterned after the Tokyo Metro Railway Institute at the depot of the Metro Manila Subway. The PRI courses are currently offered to existing employees of railway operators and also offer courses for newly employed railway personnel.

1-2 Coherence : High

1) General

Coherence can be evaluated by examining the alignment of the project with the development policies and strategies in the Philippines, particularly in the transportation sector. Establishment of PRI complements other initiatives aimed at developing the efficient railway network in Manila. The project is coherent with broader development objectives and contributes to a holistic approach to enhancing the country's transportation infrastructure.

2) Alignment with the Policies and Strategies of the Philippine Government

The creation of the PRI is in line with the government's recognition of the transportation sector, particularly the railways industry, as a priority sector under **the Ambisyon Natin 2040**. The railway projects in the pipeline will support the national spatial strategy (NSS) of **the Philippine Development Plan (PDP) 2017-2022 and 2023-2028**, which serves as the basis for policies on urban and infrastructure development in accordance with the AmBisyon Natin 2040. The government clearly states that the role of PRI is to complement investments in this sector with appropriate human capital development.

3) Alignment with the Policies and Strategies of the Japanese Government

The Japanese Government's export strategy, namely **"The Action Plan for Overseas Deployment of Infrastructure Systems"** put particular emphasis on "strengthening continuous involvement through participation in O&M" as a priority area.

In addition to the conventional advantages in railway sector, i.e. elemental technologies and manufacturing/construction technologies, "high quality O&M and value-creating technologies" are positioned as Japan's "new core technologies," and it is extremely effective to strengthen competitiveness, as the Action Plan states.

According to MLIT (2021), part of the strategy is to strengthen human resource development through the establishment of training institutes and support for training implementation, etc. Strengthening human capital development in partner countries through such initiatives will enable partner countries to properly operate and maintain their own railway systems. As such, the project is in line with Japan's policy and strategy.

1-3 Effectiveness : High

1) General

The effectiveness of the project can be evaluated by assessing whether PRI has been successfully established and operationalized. This would involve examining factors such as the completion of infrastructure, recruitment of qualified staff, development of training curricula, and delivery of training programs. The Institute is functioning as intended and providing the necessary training and support to enhance the skills of personnel in the railway sector. This indicates that the project has been effective in achieving its objectives.

Even though the Project faced with some challenges, including some delays in progress of training delivery and certification and failure to start training delivery with the own facilities and equipment, effectiveness of the Project should be high enough as PRI has been successfully established and operationalized.

2) PRI is established as an organization.

The Project successfully established PRI as the statutory organization with the necessary institutions, including the signed EO, IRR, Circulars & Internal Orders. The number of staffs are fulfilled and sufficient to undertake its mandates.

3) Regulations and guidelines are established.

Regulations and guidelines on the human resource capacity of railway operators are established through the issued IRR, Circulars and Orders. The IRR enabled PRI to regulate HRD of the railway sector. The substantial procedures and guidelines were established in the form of Circulars and Orders.

4) Training module and materials are prepared.

The Project already obtained approval on training curricula. Also, all the training materials and manuals were developed and currently in use for Refresher and Fundamental Trainings. The textbooks, consisting of 14 books, were officially registered in the National Library.

5) Trainings are regularly provided (while observing some delays in progress).

PRI regularly provides Refresher and Fundamental Trainings, securing the sufficient number, i.e. about forty (40) persons of instructors. They got certified by TESDA in February 2022, awarded with the Trainers Methodology Certificate.

Meanwhile, the Project faced with some delays in progress of training delivery and certification, mainly due to the operation and maintenance schedule of the Railway

Operator (RO). (See III. 2. Key Factors Affecting Implementation and Outcomes). Contrary to the initial expectations for full accomplishment (not clearly specified in the R/D and the monitoring sheets, though), the Refresher Training for the existing railway personnel is completed 76% (nearly 3,000 persons) with the certification rate of 42% (over 1,600 persons).

6) Training facilities are properly installed (still in the process of development).

After completion of our review on the designs and specifications, the Team is confident that suitable training facilities and equipment will be delivered.

Contrary to the initial expectations in the R/D and the monitoring sheets, the facilities and equipment of PRI were not completed during the project period. Largely due to land acquisition problem in the development project, they are still in the process of development / procurement as of this reporting period, which hindered the regular training delivery with the own facilities and equipment (except for train simulators).

7) Function and Duty of Rail R&D in the Philippines are prescribed.

The Project already held three (3) times of the R&D seminars with the attendance of major stakeholders from rail industry and academia. PRI consolidated a proposal in the form of action plan, based on the results of past seminars and the ranges of training programs in Japan.

1-4 Impact : High

1) General

The impact of the project can be assessed by examining the broader effects and changes resulting from the establishment of PRI. According to the feedback from ROs and TSPs, the Institute has contributed to improvements in the Philippine railway sector, such as enhanced safety awareness and improved service quality. PRI has had a positive impact on the sector by producing skilled professionals by its training delivery in partnership with ROs, TSPs, and academic institutions and fostering innovation / best practices through train simulators, DX solutions and R&D activities among others, it demonstrates the great impact of the project.

2) Establishment of a Platform to Develop Skilled Workforce

The existing railway systems in the Philippines has experienced a series of operational interruptions. There are concerns that they will have a serious impact on the lives and

safety of passengers. Skilled workforce is one of the key elements to sustain the safety and reliable railway operations and maintenance.

PRI is envisioned to become a training institution and certification body, which ensures that all individuals who will operate and maintain the trains, as well as other personnel involved in operations, will have the necessary skills, qualifications, and service-oriented mindset. The PRI plays a pivotal role to ensure that railway operators, through their skilled workforce, continue delivering the reliable service in existing and upcoming railway systems.

3) Creation of Value Chain for HRD

Establishment of PRI also contributed to create a closed-loop of value chain for HRD in railway sector in the Philippines. Academic institutions, including Commission on Higher Education (CHED), Department of Education (DepEd), and more than 10 universities and colleges are partnering with PRI as the source of future railway personnel and collaborating to offer railway courses and lectures. Railway sector, including ROs and TSPs started to deploy personnel who successfully undergo training at PRI.

4) Digital Transformation (DX) and R&D Activities to Create Additional Values

PRI already held a DX seminar in January 2024 and experienced varieties of DX solutions during the training in Japan in May 2024. The Project held product demonstration and trial run with DX training products, while PRI already drafted a DX Action Plan.

PRI is revamping training and R&D with a DX plan to create a more engaging, efficient, and effective learning experience for future railway professionals. This initiative utilizes QR codes for 3D visuals, location tagging for better maintenance communication, and VR/AR/MR for safe simulations. The DX extends to R&D, investigating the effectiveness of these solutions for training and railway O&M, ensuring PRI not only trains the best but also explores a future-proofed railway system leveraging digital technologies.

Also, PRI already came up with the R&D subjects, which are; i) Skills Framework for Railway Operation and Maintenance (Skills4Rail), ii) Railway occupational safety and health (ROSH) guidelines, iii) Unified coding system for maintenance reporting, and iv) Profiling of Train Drivers using Psycho-Aptitude Test. They are already being implemented with the expected period of completion in 3rd and 4th Quarter of 2024. Transport policies, especially safety regulations by the Government would be an area of PRI's R&D subjects.

1-5 Efficiency : Moderate

1) General

Efficiency can be evaluated by analyzing the project's budget, expenditures, and resource allocation in relation to the outcomes achieved. The project was able to establish PRI within the allocated budget and resources were utilized optimally. The project demonstrated efficient use of resources while achieving its objectives.

2) Project Period : 6 Years of Engagement

The Project started in May 2018, starting from the scratch and came to completion in June 2024, accomplishing most of the tasks and outputs. In the beginning of the Project, the Team and the counterpart personnel worked on concept making, institutional designs, hiring of instructors and curriculum development. Curriculum approved in Feb. 2019 and prospective instructors join trainings in Japan in the same year. Soon after pilot Refresher Training, The Executive Order No.96 to establish PRI was signed in Nov. 2019, followed by the enactment of Implementation Rules and Regulations. In 2020, COVID-19 severely impacted on our activities, PRI made huge efforts to shift to online trainings. When the pandemic still remained but slowdown in 2021, PRI managed to start the Fundamental Training. In 2022, state-of-art driving simulators were introduced. Also, PRI instructors underwent intensive training in Japan for the period of 2 months. In 2023, PRI conducted the training course for SMC-MRT7, as part of the operational readiness program for the new line.

3) Budget and Resource Allocation

JICA experts have been assigned since 21st of May 2018. Until the reporting period, forty (40) JICA experts have been assigned for approximately 220.77 person/months (118.84 in the Philippines + 101.93 in Japan). The amount of the consulting service contract is JPY 670 Millions in the beginning and later increased to nearly JPY 800 Millions to engage in the expanded scope with longer duration. This allowed the Team to mobilize the sufficient number of experts to provide the comprehensive technical assistance.

PRI deployed forty six (46) persons, out of fifty nine (59) positions approved by DBM. Within the allocated budget, the office space and training rooms for PRI at the Colombia Tower in Ortigas have been maintained at a moderate level since the beginning of the project with working equipment including desks, chairs, computers, electronic equipment, tables, bookcases, shelves and partitions.

4) Significance of Training in Japan

The Project provided 4 training sessions in Japan with a cumulative total attendance of 85 persons. As the highlight of the training in Japan, PRI instructors underwent intensive training at Tokyo Metro for a period of 2 months in 2022 to gain practical hands on experience. In briefing for Japanese Prime Minister during his visit to PRI, the Undersecretary (Rail), DOTr underscored that the core of the institute's professionals received specialized training in Japan, contributing significantly to the development of the Philippines' railways sector.

1-6 Sustainability : Moderate

1) General

Sustainability can be evaluated by assessing the project's ability to maintain its benefits over the long term. PRI has put in place mechanisms to ensure continued funding, support, and operation beyond the initial phase of the project, through DOTr. Additionally, sustainability of PRI involves its capacity to adapt to future training needs and challenges in the railway sector through its training facilities and equipment, ensuring its sustainability over time.

2) Securing Budget for Sustainable Operations

PRI is a relatively well-funded organization in terms of budget security nowadays, while it used to face with budget shortage in its operation. Inability to repair air conditioning systems in the office, led to uncomfortable working environments. Inadequate funds to purchase necessary tools and equipment for training delivery, hampered to maximize the quality and effectiveness of PRI training. Securing budget for sustainable operations for long-term after completion of the Project remains to be a key challenge for PRI.

In JCC4, the Team explained about the PRI's business plan, including the training fees, training demand, revenues and operating expenses of PRI, where on average 80% of the operating expenses of the PRI need to be subsidized through budget provisions from the DOTr, and only 20% is recovered through the training fees collected. In response to this, DOTr recognized the necessary to add another level of assurance in the budget security.

Since then, the Team updated the business plan including financial requirements of PRI at every JCC to allow DOTr and PRI to develop a comprehensive budget plan that prioritizes critical expenditures such as payroll, maintenance, and training resources. The Government should maintain its support to ensure that essential operations and

maintenance can be performed without financial interruptions. Meanwhile, PRI should continue to explore alternative funding options to diversify revenue streams.

3) Talent Retention and Institutional Memory

Issues on talent retention was discussed in JCC5. As of JCC5 in April 2022, 17 persons left PRI since the beginning of the Project. Looking beyond the financial loss, PRI has to ensure sustainability in terms of retaining expertise and institutional memories as well as relaying these to new PRI personnel in the future. Following JCC5, PRI developed retention and institutional memory plan based on the result of exit interview surveys and employee satisfaction surveys.

Proposed retention plan includes 5 actions; visualizing workload, improving recruitment plan, establishing personnel exchange, developing career stream and promoting mental health. Proposed institutional memory plan includes 5 actions; restructuring in-house documents, developing onboarding materials, improving teaching guidelines, archiving work records and making video materials. PRI already completed development of standardized onboarding programs (video materials) as well as instructional database as of this reporting period. Continuous implementation of the above actions is recommended to ensure sustainability of the institute.

2 Key Factors Affecting Implementation and Outcomes

2-1 General

Delay in delivery of PRI's own training facilities and equipment postponed the full accomplishment of the Milestones. Also, the Project is unable to complete certification of the existing rail personnel through the Refresher Training within the period due to the challenge for ROs and TSPs to send trainees to PRI, while keeping O&M services.

2-2 PRI's own training facilities and equipment

1) Identified Issues

Delay in the schedule of MMSP development project (opening of PRI building with partial operability equipment and full functioning with all the training equipment will take place in December 2024 and 2026, respectively) postponed the full accomplishment of the Milestone 3 (Start Trial Training at PRI Building) and the Milestone 4 (Start Full Regular Training).

2) Actions Taken

PRI explored partners in railway sector to allow practical trainings at their worksites. Practical trainings have been carried out using the facilities and equipment of the existing ROs, including MRT3 and LRT2. PRI has also approached LRT1, but LRMC, the operator of LRT1 cited scheduling conflicts (e.g., LRT-1 Cavite Extension construction works). PNR facilities, such as the PNR Malanday Depot, were examined but concluded not suitable to meet the objective of PRI training.

3) Effects of the Actions

PRI manages to provide practical trainings without own facilities and equipment, but it requires significant efforts for necessary coordination with ROs to ensure safety of the trainees and avoid any hindrance to the day-to-day operation and maintenance activities of the operational lines. PRI earlier received several complaints from ROs about its insufficient coordination, especially for frequent tardiness and/or failure to be punctual due to traffic congestion and guiding large number of trainees. Once the PRI's own facilities and equipment are made available to use, the burden for PRI instructors will significantly be reduced.

2-3 Challenge for ROs and TSPs to send trainees to PRI

1) Identified Issues

The Project is unable to complete certification of the existing rail personnel through the Refresher Training within the period. This is because ROs and TSPs find it difficult to dispatch their personnel to PRI for the 5-day Refresher Training due to their commitment to day-to-day operation and maintenance service of their railway line.

Also, passing rate in comprehensive examinations for certification needs to be improved.

It is worth to note that LRMC has the least RT participation rate among ROs and TSPs, and in their response letter to PRI in August 2023, they have expressed two concerns: i) They prefer the in-person training as it is more effective over the self-paced web Refresher Training., ii) They can only send a maximum of 33 personnel per in-person RT Batch due to operational needs and concerns. Given the above circumstance, they can complete the RT for all their personnel until 2027 (if in-person training is only 5 batches a year) or PRI can add 15 batches until December 2024.

Likewise, PNR's low participation rate, especially for the Railway Maintenance and Commercial Train Driving competencies, is due to their irrelevance with PRI's current curriculum that is focused with the electrified lines while the PNR is a non-electrified

system (diesel locomotive trains).

2) Actions Taken

PRI held a coordination meeting with all ROs and TSPs in October 2023 to discuss future options to improve the participation in the RT Course. Summary of the options were as follows:

Increase the Compliance Rate (Trained Personnel)	- Conduct of more batches for in-person RT Course - Continue offering online RT Course through PRI's Learning Management System (LMS) - Implementation of flexible training modality (in-person onsite, in PRI training rooms; online through LMS) - Continue offering the RT Course beyond 2024 with a training fee (currently free).
Increase the Certification Rate (Certified Personnel)	- Conduct a review session to all examinees as requested by concerned Railway Operator - Frequent schedule of Comprehensive Examination for those trainees who finished through LMS - Implementation of Practical Examination as part of the Assessment. - Separate sets of examination for personnel who graduated High School or College.

3) Effects of the Actions

PRI already introduced part of the above and started observing the effects. Such efforts include; i) PRI sent their instructors to the convenient venues for ROs to take the RT., ii) PRI introduced an alternative assessment method, i.e. practical examination., and iii) PRI prepares for the inclusion of RT training fee that will be included in the amendment of the Department Order for Training Fee., among others. With these, participation of LRMC and PNR in RT as well as passing rate in comprehensive examination show positive improvements.

3 Evaluation on the results of the Project Risk Management

By controlling the following risks throughout the entire period of the technical assistance, PMO and JET avoided any significant failures in the conduct of project activities.

3-1 Risk 1: Lack of the Number of Instructors

1) Description of the Risk

Refresher and fundamental training may not be able to run due to lack in the number of instructors (late, insufficient or no hiring of PRI instructors).

2) Actions Taken

- **Additional instructors were hired at the right time.**
- **PRI workforce was expanded.**

As of February 2019, only six (6) PMO personnel were active, while none of PRI instructors had been assigned. In JCC2, it was agreed that RT should start in October 2019 as DOTr would complete hiring of the twenty four (24) instructors at the right time. Meanwhile, DOTr requested the Team not set qualifications of PRI instructors too high taking into account the human resources market in the Philippines, instead enrich "training of instructors" to make them become competent.

Provisional refresher training started as scheduled with the active staff, including eight (8) training experts and ten (10) other PMO members. In JCC3, the Team pointed out that it is unable to start FT in April 2021 with the existing number of instructors, and requested DOTr to assign additional instructors before April 2020 for conduct of RT and preparation of FT in parallel. In response, DOTr expedited the hiring process for the additional instructor posts so that they would be in place not later than April 2020.

In JCC4, the Team pointed out again the lack in the number of instructors, i.e. twenty-two (22) active staff, as the result that nine (9) persons already resigned from PRI since JCC3. DOTr explained that hiring of competent personnel is a concern, while PRI went through the hiring process with its best endeavor.

In JCC5, PRI reported that they already deployed forty-five (45) persons. Parallel run of RT and FT was made possible by mobilizing not only training expert positions but also PMO personnel to work as the instructors / assistant instructors, while PRI improved its efficiency in training delivery through introduction of LMS, web RT, and review of its resource management.

In JCC7, the Team reported the result of manpower analysis. According to the leveraged training demand, proposed manpower complement, i.e. fifty nine (59) posts already approved by DBM, seems to be appropriate to handle specialized competencies, while PRI should seek external training providers to deliver core and safety trainings. In the meantime, PRI reported that the Institutional Strengthening Report is under review by DOTr, where an expansion of over 100 permanent positions is proposed to meet future training demand.

3-2 Risk 2: Failure to Retain Talent

1) Description of the Risk

Failure to retain talent will make it hard to run refresher and fundamental training in parallel and/or lower the training quality.

2) Actions Taken

- **Attractive working environment / conditions were maintained.**
- **Retention and institutional memory plan was implemented.**
- **PRI workforce plans to be expanded beyond the already approved staffing profile.**

In JCC4, the Team reported that chronic manpower shortage partly comes from difficulty to retain talents. PRI observed nine (9) resignees in the period between JCC3 and JCC4.

In JCC5, the Team reported that seventeen (17) already left PRI since the beginning of the Project and suggested that a Talent Retention Plan should be developed to ensure the quality of the PRI training. It was agreed in the meeting that looking beyond the financial loss, the PRI has to ensure sustainability in terms of retaining expertise and institutional memories as well as relaying these to new PRI personnel in the future.

Creation of a retention plan started with the identification of reasons for resignations through exit interviews in order to determine appropriate measures. Through this, PRI and the Team recognized that the attractive working environment / conditions should be maintained as the strength of the institute, while excessive workload for managerial positions should be rectified.

Proposed retention plan includes 5 actions; visualizing workload, improving recruitment plan, establishing personnel exchange, developing career stream and promoting mental health. Proposed institutional memory plan includes 5 actions; restructuring in-house documents, developing onboarding materials, improving teaching guidelines, archiving work records and making video materials. PRI already completed development of standardized onboarding programs (video materials) as well as instructional database as of this reporting period. Continuous implementation of the above actions is recommended to ensure sustainability of the institute.

Meanwhile, PRI continues its efforts to expand the workforce to reduce excessive workload as mentioned in the 3.1 Risk 1 above. As the result, turnover rate of PRI has gradually been improved and the number of resignees is reduced.

3-3 Risk 3: Slow Progress in Training Delivery and Certification

1) Description of the Risk

PRI may not be able to achieve target of progress in Refresher Training within the project period.

2) Actions Taken

- **DOTr asked ROs & TSPs to better cooperate and more proactively attend RT.**
- **Flexible training programs were maintained.**
- **Other solutions to expedite the certification process were introduced.**

In JCC5, JCC members discussed the way to expedite RT with an increased number of trainees per batch and certification with a higher passing rate in comprehensive exams. JICA suggested that PRI, with the strong leadership of the Executive Director, should proactively coordinate with ROs and TSPs, seeking their better cooperation. In response, PRI explained that they already implemented several strategies to tackle the issue, including weekend classes, asynchronous mode of learning for the RT Course, and introduction of practical examinations. Also, PRI was urging ROs and TSPs to submit their programs in order to expedite the certification process.

In JCC6, the Team proposed the target progress of RT, where the Project should accomplish 75% of RT completion rate by the end of the Project (44% as of JCC6).

In JCC7, the Team pointed out that the Refresher Training and certification are unlikely to complete within the project period. JICA suggested that the Project should pay particular attention to the progress of RT commercial train driving (CTD) and find a way to expedite the progress of certification for CTD. JCC members agreed to elaborate the solutions to expedite the RT certification, taking the several options into consideration.

After JCC6, PRI developed an action plan and implemented part of the actions as explained in 2-3 Challenge for ROs and TSPs to send trainees to PRI, while keeping O&M services above.

In JCC8, PRI reported that they achieved the target as previously set in JCC7, i.e. over 75% of total O&M workforce is trained by PRI in May 2024. The Refresher Training for the existing railway personnel is completed 76% (nearly 3,000 persons) with the certification rate of 42% (over 1,600 persons).

3-4 Risk 4: Delayed Commissioning of PRI Building and Training Equipment

1) Description of the Risk

Commissioning of PRI building and/or training equipment may face with significant delays, thereby PRI fails to deliver part of the intended trainings as scheduled.

2) Actions Taken

- **PRI flexibly adjusted project schedule and resources, while seeking collaboration with industry partners.**

Delay in the schedule of MMSP development project (opening of PRI building with partial operability equipment and full functioning with all the training equipment will take place in December 2024 and 2026, respectively) postponed the full accomplishment of the Milestone 3 (Start Trial Training at PRI Building) and the Milestone 4 (Start Full Regular Training).

In JCC5, the Team suggested that PRI should explore more partners in addition to MRT3 to allow practical trainings. In response to this, PRI explored partners in railway sector to allow practical trainings at their worksites. Practical trainings have been carried out using the facilities and equipment of the existing ROs, including MRT3 and LRT2. PRI has also approached LRT1, but LRMC, the operator of LRT1 cited scheduling conflicts (e.g., LRT-1 Cavite Extension construction works). PNR facilities, such as the PNR Malanday Depot, were examined but concluded not suitable to meet the objective of PRI training.

PRI manages to provide practical trainings without own facilities and equipment, but it requires significant efforts for necessary coordination with ROs to ensure safety of the trainees and avoid any hindrance to the day-to-day operation and maintenance activities of the operational lines. PRI earlier received several complaints from ROs about its insufficient coordination, especially for frequent tardiness and/or failure to be punctual due to traffic congestion and guiding large number of trainees. Once the PRI's own facilities and equipment are made available to use, the burden for PRI instructors will significantly be reduced.

3-5 Risk 5: Change in Training Demand due to Delay in Commissioning

1) Description of the Risk

Commissioning of new lines may face with significant delays, thereby PRI needs to postpone fundamental training for the employees of new lines, resultantly PRI may be under-used in the first years and unable to handle training demand in subsequent years.

2) Actions Taken

- **PRI flexibly adjusted project schedule and resources, while reviewing and revising the business plans.**
- **PRI will accredit external training providers with the respective circular to serve for the demand exceeding the training capacity of PRI.**

Not only construction of PRI facilities and procurement of training equipment, but also the construction of the various ongoing railway projects is facing with significant delays, largely due to issues pertaining to land acquisition. This affected the hiring of new railway personnel.

All newly hired railway operation and maintenance personnel hired on 01 December 2020 onwards are mandated to undergo FT at PRI. Out of the total 445 persons underwent FT in May 2024, only 101 persons are the employees of ROs, i.e. mostly from SMC-MRT7, while the remaining 344 persons are Non-RO personnel (such as prospective students and Overseas Filipino Workers (OFWs) who are interested to work in railway industry). This means FT training demand for new recuits for new railway lines will grow after the Project.

As agreed in JCC4, the Team updated the business plan including estimate of the training demand at every JCC. According to this, FT demand exceeds the capacity of PRI, i.e. 1,500 persons per year, when various ongoing railway projects will come into the commissioning period. Seeking external training providers to deliver core and safety trainings to complement the exceeding demand, PRI prepared the draft circular on accreditation of external training providers, which are in the process of approval as of this reporting period.

3-6 Risk 6: Failure to Secure Sufficient Budget for PRI Operations

1) Description of the Risk

DOTr / PRI fail to secure the budget for PRI operations, thereby PRI cannot maintain the quality of trainings.

2) Actions Taken

- **Business plans were updated from time to time, attached to the R/D and the minutes of the JCC meetings, and keep the Government always informed about the needed future budget for PRI operations.**
- **PRI did and will further elaborate the ways to enhance cost recovery ratio by**

exploring diverse revenue sources.

PRI is a relatively well-funded organization in terms of budget security nowadays, while it used to face with budget shortage in its operation.

In JCC4, the Team explained about the PRI's business plan, including the training fees, training demand, revenues and operating expenses of PRI, where on average 80% of the operating expenses of the PRI need to be subsidized through budget provisions from the DOTr, and only 20% is recovered through the training fees collected. In response to this, DOTr recognized the necessary to add another level of assurance in the budget security.

Since then, the Team updated the business plan including financial requirements of PRI at every JCC to allow DOTr and PRI to develop a comprehensive budget plan that prioritizes critical expenditures such as payroll, maintenance, and training resources.

In JCC7, the Team explained about the business plan, including training demand, training fees, operating expenses (OPEX) and cost recovery ratio, and emphasized the need for improving cost recovery ratio with the ideas on diverse revenue sources, including sponsorships, grants from rail industry, and a foundation. In response to this, PRI management committee elaborated the ideas for additional revenues, taking the statutory constraints into consideration.

PRI is so far well-funded organization in terms of budget security, but in the long run, the Government should maintain its support to ensure that essential operations and maintenance can be performed without financial interruptions. Meanwhile, PRI should continue to explore alternative funding options to diversify revenue streams.

4 Lessons Learnt

The lessons learnt from the Project include the following:

- The strong commitment of the government is the key driver and success factor for the project. Since the approval of the Executive Order, the project has advanced rapidly under the strong leadership of the Executive Director/Undersecretary for PRI.
- Securing highly capable staff is another key success factor for the project. Although the turnover rate increased due to continuous resignations in the past, it was later improved as PRI has maintained an attractive working environment and conditions, and continues to discuss and implement plans for retention and institutional memory.

- There is a trade-off between training volume and ease of attendance. For ROs and TSPs, it is challenging to send their personnel to PRI for the 5-day Refresher Training due to their commitment to day-to-day operations and maintenance of their railway lines. Shorter training periods may compromise training outcomes.
- Commissioning of physical developments, such as construction and procurement, often faces certain delays. If these delays are beyond the control of the project, they should not be designated as key milestones. Otherwise, the project timeline should be adjusted flexibly.

5 Performance

The project activities are successfully executed in general accordance with the original plan of operations. Looking into the accomplishment of key milestones, goals, project purpose, and outputs, it can be concluded that the Project reached substantial completion.

6 Additionality

Shaping Directions and Strategies through Expert Panel Meetings (EPM)

At the meeting between JICA and DOTr on October 7th ,2019, DOTr requested JICA to support creation of enabling environment in the railway sector with the aim to attract many railway operators to participate in the market. In JCC3, JCC members agreed to conduct Expert Panel Meetings (EPMs) as PRI-TA is in the suitable position to discuss the policy matters across the individual railway lines. PRI-TA contributed by conduct of EMP to shape DOTr's direction and operational strategies.

The EPMs have provided insights and guidance for the subsequent masterplan study, regulatory systems, and successful O&M. The Team facilitated EPM sessions, bringing together Japanese and Philippine experts, industry stakeholders, and policymakers.

Experts provided valuable recommendations on various aspects:

- The identified requirements of the masterplan are harmonized with plans from other agencies, recognized by other government agencies and by the private sector, spearheaded by the government, maintained even when administrations change, and coincided with the approval of projects.
- The recommendations for regulatory systems are route evaluation by the inter-

agency taskforce with the various key performance indicators, and continuous research on innovative financing schemes.

- The recommendations for successful O&M are; integrated operations of railway network, hierarchical transport network, seamless transfer, profitable business with commercial development, value capture and taxation strategy, performance control with operational KPIs, and sustainable financing schemes.

IV. For the Achievement of Overall Goals after the Project Completion

1 Prospects to achieve Overall Goal

1-1 About Goal Indicators

The original goal indicators are, i) the number of fatal accident is reduced., and ii) the number of injury accident is reduced. However, PRI and the JICA Expert Team raised a question if such indicators properly reflect the performance of the PRI and the Technical Assistance Project, as accidents would occur not only because of the skills and knowledge of O&M personnel but also because of the deteriorated railway systems.

Accordingly, PRI suggested alternative goal indicators in JCC7 - such as reduced number of fatal accidents and injury accidents, reduced human error accidents/incidents, customer satisfaction rating, lost time to incident, incident handling, time to service recovery – to better reflect the performance of the Project. Availability of such data and information from the respective Railway Operators (ROs) is still unknown, as each RO has their own monitoring system on safety and reliability.

As discussed in the JCC, another way of measurements should be the results of feedback from the ROs and the trainees about their perceptions of training at PRI. Positive feedback from the ROs and the trainees should underpin the accomplishment of the overall goal of the project.

Finally, the JCC members concluded to remain the original indicators, as availability of data and information about the alternative indicators remain uncertain. Notwithstanding the foresaid, these alternative indicators should be evaluated if such data and information will be made available in future.

1-2 Prospects of Achievement

The success factors include institutional capacity and resources, partnerships and

collaboration, regulatory and policy support, and stakeholder engagement in the PRI initiative. If PRI manages to effectively address these areas, there is a strong prospect of achieving significant improvements in the reliability and efficiency of the Philippine railway systems. The key will be the institute's ability to act swiftly and decisively, leveraging all available resources and support to make the most of the Project outcome.

2 Plan of Operation and Implementation Structure to achieve Overall Goal

PRI is committed to deliver its mandates to achieve overall goal of the Project.

- PRI will, at its best endeavor, avail the data and information necessary to measure the project goal indicators from ROs and TSPs at the right time.
- PRI will, at its best endeavor, conduct periodical interview surveys to obtain feedback from respective ROs and TSPs as well as trainees satisfaction surveys as part of the PRI's quality management cycle.
- PRI will continue to provide the Refresher Training Course until all the existing railway O&M personnel is certified (expected period of completion: March 2025).
- PRI will continue to provide the Fundamental Training Course, despite the fact that delays in the construction of the various ongoing railway projects have affected the hiring of new railway personnel.

3 Recommendations for the Philippine side

Recommendations for the Philippine side include the following:

Promote Industry Collaboration: Foster closer collaboration with industry stakeholders, including government agencies, private sector companies, and international partners. By engaging with key players in the railway sector, PRI can ensure that its training programs remain aligned with industry standards and best practices. Collaboration can also facilitate knowledge sharing and technology transfer, enhancing the Institute's effectiveness.

Promote Public Awareness: Increase public awareness and appreciation of the PRI's role in advancing the country's railway sector. Develop outreach and communication strategies to highlight the Institute's achievements, showcase successful trainee outcomes, and promote the importance of investing in railway infrastructure and human

capital development. Building public support will help sustain political and financial backing for the Institute's continued operation.

Introduce Performance Control / Safety Management System: To enhance the safety and efficiency of the railway system in the Philippines, it is crucial for DOTr and PRI to establish a robust system for collecting and analyzing accident and incident information from all railway operators. This should involve i) centralized data collection (establishing a centralized database for all railway incident reports), ii) standardized reporting (developing standardized reporting procedures to ensure consistency and accuracy), and iii) data analysis and feedback (implementing a system for analyzing the collected data to provide actionable insights and feedback.).

Improve Annual Report: Establish a process for the regular preparation and dissemination of a comprehensive annual report that documents the PRI's activities, achievements, and impact. This report should provide stakeholders, including government agencies, donors, industry partners, and the public, with transparent and detailed information about the Institute's performance, including organization and staffing profile, business plans, training delivery and outcomes, useful statistics on railway O&M, and key milestones toward sustainable growth. By enhancing transparency and accountability, the annual report will help build trust and confidence in the Institute's operations and contribute to its sustainability.

4 Monitoring Plan from the end of the Project to Ex-post Evaluation

DOTr is expected to monitor the activities using the outcomes of the PRI project and other means to promote sustainable railway operations and training excellence after the completion of the Project. PRI will compile information on the progress and results of these activities and provide the information when requested by JICA.

- PRI will oversee the implementation of railway training programs and operational standards established during the project. This includes regular assessments of training quality, operational and occupational safety, and service mindset across ROs.
- PRI will compile comprehensive annual reports on the progress of the PRI initiatives, detailing successes, challenges, and areas for improvement. These reports will include data on training outcomes and other performances of the institute.
- The JICA HQ and the Philippines Office will continue to serve as a supporter in the

development and enhancement of the PRI. In this capacity, JICA will participate in key meetings and discussions related to the PRI's ongoing activities and strategic planning, as appropriate.

- Given the concern of budget shortfalls affecting the sustainability and impact of the PRI's outputs, it is recommended that JICA continues to work closely with DOTr to advocate for increased government funding and explore alternative funding sources, including public-private partnerships and international grants.
- DOTr should strictly enforce any of the ROs and the TSPs to undergo the mandated trainings at PRI to maximize the effects and promote consistency nationwide.
- Both DOTr and JICA are expected to frequently disseminate the successful practices and guidelines developed by PRI to other stakeholders and development partners (DPs). This dissemination will promote the adoption of outcomes of the Project in the trainings across various projects supported by DPs.

By following this monitoring plan, PRI can ensure that the HRD systems established during the Project are sustained and built upon, ultimately contributing to the overall enhancement of the railway sector in the Philippines.