

Project Completion Report

People's Republic of Bangladesh

**Project for capacity building of zoo management and
animal's disease diagnosis, treatment, prevention and
control**

Bangladesh National Zoo

Japan International Cooperation Agency

February 2024

GE
JR
24-034

I. Basic Information of the Project

1. Country: Bangladesh

2. Title of the Project: Project for capacity building of zoo management and animal's disease diagnosis, treatment, prevention and control

3. Duration of the Project: September 2023-February 2024

4. Background:

Bangladesh National Zoo is the economic recreation centre for the visitors from Dhaka and around. At present there are 2,647 animals, birds and aquarium fishes of 140 species exposed for exhibition. However, there were many death cases of animals in the zoo, especially in 2009, and the zoo personnels had limited experiences with minimum laboratory and equipment for their housing management, feeding and health management. To improve the animal's housing, feeding and health management, the training provided through this project was designed to provide the Bangladesh National Zoo personnel with Japanese experts' advice and knowledge-sharing of zoo management experiences in Japan, in the aim to help upgrade zoo management in the Bangladesh National Zoo.

The training has been designed to share knowledge and experience on how to improve animal's disease diagnosis, treatment, prevention and control, to improve animal's management and feed management, and to improve environmental care, management and education.

5. Overall Goal and Project Purpose:

(1) Overall Goal: By practicing zoo operations and management with an awareness of animal welfare and biodiversity conservation, the zoo will be able to provide a venue for visitors to promote understanding of various international and regional animal species.

(2) Project Purpose: The role that zoos play will be understood, and the issues related to zoo operations, animal rearing, and environmental education will be identified, and action plans for improvement will be drafted.

6. Implementing Agency: Bangladesh National Zoo, Ministry of Fisheries and

Livestock

II. Results of the Project

1. Results of the Project

1-1 Input by the Japanese side:

1. Training for Bangladesh National Zoo officials (in Japan)

1-2 Input by the Bangladesh side:

1. Allocation of Counterpart Personnel: 10 officials
2. Local costs

1-3 Activities: (ANNEX 1: Training Course Schedule)

Activity 1-1: Attend lectures on disease diagnosis, treatment, and prevention.

Activity 1-2: Visit facilities related to disease diagnosis, treatment, and prevention.

Activity 1-3: Conduct workshops on disease diagnosis, treatment, and prevention.

Activity 2-1: Attend lectures on animal's management and feed management.

Activity 2-2: Visit facilities related to animal's management and feed management.

Activity 2-3: Conduct workshops on animal's management and feed management.

Activity 3-1: Attend lectures on environmental care, management and education.

Activity 3-2: Visit facilities related to environmental care, management and education.

Activity 3-3: Conduct workshops on environmental care, management and education.

2. Achievements of the Project

2-1 Outputs and indicators

Outputs	Indicators
Output 1: Improve animal's disease diagnosis, treatment, prevention and control	1-1: Trainees can identify issues in the animal's disease diagnosis, treatment, prevention and control on their own.

(Results) Achieved

Specific action plans were developed. The participants became more aware of animal welfare, which had not been of much interest to them in the past. They proposed improvements to environmental enrichment (e.g., planting trees or give tree branches and logs inside cages) and were able to consider improvement measures with an awareness of the "five freedoms" of animal welfare, which improved their awareness of keeping animals in a good environmental condition. Improvement plans for visitors to the zoo included the creation of leaflets with important information and the installation of zoo map signs at key locations in the zoo. As for the Visitor Center for environmental education, the participants suggested renovating the existing facility rather than building a new one, showing a high level of awareness toward its realization.

Output 2: Improve animal's management and feed management	2-1: Trainees can identify issues in the animal's management and feed management on their own.
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(Results) Achieved

Specific action plans were developed. The participants demonstrated a willingness to share what they learned as trainees in their workplaces through staff training and to motivate the entire staffs.

(Veterinary) After visiting Japanese veterinary facilities in zoos, which have well-organized medicine cabinets, the participants felt the need to reorganize the facilities in Bangladesh zoos and is considering how to organize to make them easier to use.

(Breeding Management) The participants have been aware of the importance of the food (nutrition) for breeding animals, and as a result of the training, they decided to formulate a specific improvement plan. They also understood the necessity for motivational training and husbandry training for breeding staffs, and they plan to implement them.

Output 3: Improve environmental care, management and education	3-1: Trainees can identify issues in the breeding environment on their own.
	3-2: Trainees can plan environmental programs on their own.

(Results) Achieved

Specific action plans were developed. A plan was drafted to brief students at the primary and secondary levels on the importance of environmental conservation and civic responsibility. Plans were made to establish an educational center by renovating existing building and to hold sessions for students on the relationship between biodiversity/wildlife conservation and the environment. In addition, measures to keep the environment in the zoo clean (e.g., installation of trash cans and a cleanup program) were presented.

2-2 Project Purpose and indicators

Project Purpose	Indicators
The role that zoos play is understood, and the issues related to zoo operations, animal rearing, and environmental education are identified, and action plans for improvement are drafted.	The trainees create an action plan for zoo operation and zoo animal management. Trainees plan environmental education programs with an awareness of biodiversity conservation.

(Results) Achieved

With a good understanding of the role played by zoos, issues in administration and management, breeding management, and environmental education programs were identified, and specific action plans for improvement were developed.

3. History of PDM Modification: N/A

4. Others

4-1 Results of Environmental and Social Considerations (if applicable): N/A

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): N/A

III. Results of Joint Review

1. Results of Review based on DAC Evaluation Criteria

(1) Validity

As described below, this project meets the needs of Bangladesh, is aligned with the cooperation policy of Japan and JICA, and thus is highly appropriate.

Bangladesh has a rich ecosystem and is home to many species unique to the Bengal region, such as the Bengal tiger and the Bengal wildcat. In recent years, with the increase in human-animal contact, the number of species enlisted as endangered species has been on the rise, and urgent measures to conserve biodiversity in the country are required. The improvement of facilities and husbandry skills of the staff of the Bangladesh National Zoo, which is a place for disseminating information on the valuable biodiversity in the country, will not only improve the welfare of the animals in their care, but also contribute significantly to the improvement of the zoo staff's technical skills and awareness, as well as to the improvement of visitors' understanding of biodiversity.

Japan and JICA are actively promoting biodiversity conservation efforts, placing emphasis not only on domestic but also global efforts. This project aims to raise awareness of biodiversity conservation among zoo visitors as well as zoo personnel by strengthening facility and husbandry management capacity at zoos through training, which is in line with the cooperation policy of Japan and JICA on biodiversity conservation.

(2) Efficiency

The project was able to be implemented within the originally planned project period and within the originally planned project cost. Therefore, the efficiency of the project is very high.

(3) Effectiveness

Since the project activities were implemented as scheduled, it can be considered that the outcomes and project purpose, such as the creation of the action plan, were achieved, and the effectiveness of the project is high. In order to achieve the overall goal in the future, activities based on the created action plans need to be implemented continuously, and monitoring is necessary.

(4) Sustainability

It is expected that many of the participants in this training program will continue to work at the Bangladesh National Zoo in the future. Therefore a certain level of sustainability is considered to be ensured.

2. Lessons Learnt

This training was comprehensive, with participants coming from a wide range of fields, including zoo management, veterinary, husbandry, and education. This was essential in terms of having a common understanding through the organization, and at the same time, it was appropriate in terms of content as issues were identified in each field.

For further development of the capacity, it would be effective to narrow down the fields of study to each of the three groups (administration/management, veterinary/breeding management, and education/research) and combine a specific program to each field with a study tour of the facilities.

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

1. Prospects to achieve the Overall Goal

To achieve the Overall Goal "By practicing zoo operations and management with an awareness of animal welfare and biodiversity conservation, the zoo will be able to provide a venue for visitors to promote understanding of various international and regional animal species", the following two indicators need to be achieved:

- (1) The management of zoo animals is properly practiced according to the action plan.
- (2) New programs will be implemented to promote understanding of international and regional animal species.

Regarding indicator (1), the Action Plan has been developed through this project, and monitoring of its implementation by the Bangladesh Zoo is considered as necessary. For indicator (2), it is necessary to monitor the progress of the Master Plan, including the renovation of the zoo, while confirming the implementation status of the Action Plan that has been formulated. It is also important to ensure that Bangladesh Zoo will be able to secure the necessary budget for both indicators.

2. Plan of Operation and Implementation Structure of the Bangladesh side to achieve Overall Goal

In order to achieve the overall goal, the following action plans for each area developed by the participants should be implemented.

(1) Action Plan: Management Aspect

What We Want To Do	How To Do	Responsible Person
Enclosure reform and remodeling addressing natural habitat as much as possible:	Planting trees, placing branches of tree or wood log inside the cages	Respective officer of the cages. Director/Curator will help if necessary
Ensure animal welfare following 5 freedoms	<ol style="list-style-type: none">1. Ensure sufficient quality food & water.2. Enclosure reform & remodeling3. Disease prevention, early diagnosis & treatment of animal4. Modify some feeding technique5. Enclosure enrichment & Environmental management	Respective officer of the cages. Director/Curator will help if necessary
Preparation of zoo operation manual/SOP	Contact with different zoos and follow WAZA guidelines	All officer of the zoo
Environment friendly zoo	Prohibition of entry of food inside the zoo by visitors	Security officer with the help of contractor and other officers
Skilled & motivated staff	The employees working in the zoo will be made efficient through training and motivation	All officers especially trained in Japan
Attractive and well adoptable animal rearing	Attractive animals that can survive in the country's climate will be purchased.	Director, Curator & other officer related to procurement of animals
Up scaling in visitors' awareness including environment education	Visitors will be made aware by miking, placing leaflets, poster, banner, signboards, digital display board etc.	All officers & staffs of the zoo
Develop disease diagnostic and nutrition laboratory	Zoo authority will purchase some instruments whatever possible	Zoo authority

1) Things to be worked by Bangladesh National Zoo right away

Name of Work	How to do	Responsible Person
Staff training and dissemination workshop	A training program will be conducted for disseminating earned knowledge in Japan	All officers especially trained in Japan
Leaflet with zoo map and important information	Prepare leaflet with map & important information of the zoo	Publicity officer with help of Director/Curator
Display zoo map in 3 visible places	Zoo maps will be placed in three visible locations of the zoo	Publicity officer with help of Director/Curator
Enrich animal enclosures (Where Possible) according to animal habitat/behavior for more comfortable environment	Planting trees, placing branches of tree or wood log inside the cages	Respective officer of the cages. Director/Curator will help if necessary
Feeding of legume forage: Matikali/Khesari	Will cultivate/purchase legume forage: Matikali/Khesari	Respective officer of the cages. Director/Curator will help if necessary
Interpretation center for visitor & students for environment education	An interpretation center will be constructed and briefings on the animals will be provided to incoming visitors & students	Respective officer of the cages. Director/Curator will help if necessary

2) Things to be done in a year or two

To be done a year or two	How to do	Responsible person
Review the diet chart	Diet chart will be reviewed with the help of expert opinion and contacting other zoos of the world	Animal Nutrition officer in coordination with expert Nutritionist. Director/Curator will help if necessary
Zoo operation	Contact with different zoos and	All officer of the zoo

manual/SOP	follow JAZA/WAZA guidelines	
Repair and remodeling of some enclosures	Planting trees, placing branches of tree or wood log inside the cages	Respective officer of the cages. Director/Curator will help if necessary
Animal training for sample collection or animal/bird show	Practice elephant, horse training for riding	Respective officer of the cages. Director/Curator will help if necessary
Development of diagnostic and nutrition lab if fund is available	Zoo authority will purchase some instruments whatever possible	Zoo authority
Attractive animal collection which is adaptable in our country	Attractive animals that can survive in the country's climate will be purchased.	Director, Curator & other officer related to procurement of animals
Try to be a member of WAZA	Zoo Act will be passed within October 2023. After this, we will apply to be a member of WAZA	

3) Things that require a budget to make a better zoo

Modernization of the zoo as per the approved master plan. Knowledge gathered from Japan visit will be incorporated while implementation of the Master Plan. DPP has been submitted to authority for approval (as of February 2024).

(2) Action Plan: Husbandry Aspects

1) Things to be worked by Bangladesh National Zoo right away

What we want to do	How to do	Who will do
Gradual up gradation of the existing ration	In our National Zoo, we have specific ration for every species of animal. But we have some confusion about our diet plan is nutritionally balanced or not. After visiting different Japanese Zoo's, we found that they provide diet which differ from our animal diet, and we	Animal Nutrition Officer and Zoo Officer will prepare the balanced diet plan with the collaboration of Bangladesh National Zoo Authority.

	observed that their diet plan is better for animal health. That's why we decided to modify our animal diet plan considering ARC, NRC, WAZA and JAZA guideline	
Train up our Animal Caretaker	In our training period we found that, most of the Japanese Zookeepers are highly educated and well trained to handle and manage zoo animals. On the other side most of the Animal Caretakers (ACT) of Bangladesh National Zoo are not well educated and well trained for restraining and handling zoo animals. So, we are going to conduct some motivational training for zoo animal management.	The zoo personnel of Bangladesh National Zoo, who got training from Japanese different zoos will conduct the training program.
Start to train up some animals (Husbandry training)	For blood collection, health issues, game, or exhibition it is mandatory to restrain different species of zoo animals. The Japanese zookeepers train their animals and keep trying to train up their animals by different approaches so that they can easily handle the animals for different purposes. By this regards now we want to train our animals.	The zoo personnel of Bangladesh National Zoo, who got training from Japanese different zoos will train the animal caretakers, so that they can train zoo animals.
Arrange a seminar/workshop with resource personnels	The experience and knowledge achieved from the training upon capacity building of zoo animal husbandry of different zoos in Japan, would like to disseminate to resource personnel (Fisheries and Livestock Ministry Officials, Department of Livestock Services Officials, Zoo animal experts etc.) through seminar /workshop.	Director, Bangladesh National Zoo and his team members who visited Japan will arrange the seminar/workshop.
Build up awareness among the visitors	Japanese visitors are kind, care and aware about zoo animals. They are also very concerned about environmental	Zoo authority especially zoo publicity officer and zoo

	issues. On the other hand, the visitors to our country are irresponsible to zoo animals as well as environmental issues. For awareness build up to the visitors, we update our announcement system, circulate leaflets etc.	research, education and survey unit will convey awareness build up activities among the visitors.
Environmental improvement activities	Visitor awareness build up program. Provide adequate Waste bin. Tree plantation. Regular picking up garbage.	The zoo personnel of Bangladesh National Zoo who got training from Japanese different zoos.

2) Things to be done in a year or two

What we want to do	How to do	Who will do
Improve some of our existing enclosure	The animal enclosures in Japanese zoos are very much ecofriendly. These environments are favorable for zoo animal conservation especially for endangered species. Most of our animal enclosures are primitive designed that do not support the modern zoo management. We want to modify our enclosures which require minimum financial involvement (tree plantation, hanging ropes, wood set up, adding stone etc.).	The zoo personnel of Bangladesh National Zoo who got training from Japanese different zoos with the help of zoo authority.
Start research work to update our existing overall management system	We want to incorporate some low financial involvement research work in our zoo which we observed different zoos in Japan.	Zoo research, education and survey wing of Bangladesh National Zoo will conduct the research work collaboration with different zoos, educational institutions, and related field.

Population management	For control of inbreeding different zoos in Japan practices population management. In our zoo we like to practice animal exchange programs with inland and overseas zoos, collect animals, and maintain breeding policy.	Zoo personnel of different section will practice population management.
Husbandry training	For blood collection, health issues, game, or exhibition it is mandatory to restrain different species of zoo animals. The Japanese zookeepers train their animals and keep trying to train up their animals by different approaches so that they can easily handle the animals for different purposes. By this regards now we want to train our animals.	The zoo personnel of Bangladesh National Zoo, who got training from Japanese different zoos will train the animal caretakers, so that they can train zoo animals.

3) Things that require a budget to make a better zoo

What we want to do	How to do	Who will do
Remodeling our existing animal enclosure	By implementing the approved master plan for modernization of Bangladesh National Zoo.	The zoo personnel of Bangladesh National Zoo, who got training from Japanese different zoos with the help of Zoo authority
Starting project to conserve endangered wild animal species of Bangladesh (Pheasant, Porcupine, wild rabbit etc.)	Selecting an area in the zoo. Construction of suitable enclosure for the species. Collection of the species and starting breeding program and reintroduction of the species in the wild.	The zoo personnel of Bangladesh National Zoo, who got training from Japanese different zoos with the help of Zoo authority.
Infrastructure development and training of animals for different animal shows (Bird show, cat show,	We have animal show area in our approved master plan. Expert trainer from recognized sources will train up the animal for performing show.	The zoo personnel of Bangladesh National Zoo, who got training from Japanese different zoos with the help of

elephant show etc.)		Zoo authority.
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(3) Action Plan: Veterinary Aspects

What to do	How to do	Responsible person(s)	Facilitators/Support
Staff training and motivation	Training and motivation meeting with demonstration of learning in Japan or elsewhere	Dr. Aria Nasrin in cooperation with veterinarians working in veterinary Hospital	Director Curator
Rearrange storage system of drugs and instruments	The room rearrangement by Making/purchasing some container	Dr. Aria Nasrin in cooperation with veterinarians working in veterinary hospital	Director Curator
Prepare darts manually	Motivating technicians from training experience	Dr. Arifa Nasrin in cooperation with hospital technicians	Director Curator

1) Things to be done in a year or two

Will incorporate biochemical analyzer for laboratory tests.

2) Things that require a budget to make a better zoo

- a) Establish modern quarantine station.
- b) Modernize the veterinary hospital.

(3) Action Plan: Environment Education

What to do	Target People	How to do	Activities	Responsible Person
1.Improve the knowledge level on environment protection	1. Students of Primary and Secondary level (with	1.Conducting briefing session on importance of environmental	1.Establishment of education/ interpretation center near the entrance of the zoo	PSO, Zoo Research Education and survey Section in cooperation

	different level of contents)	protection and responsibility of a citizen for environment protection. Zoo environment, what to do and what not to do.		with Curator and Director
	2.Students from college and university	2. Conducting session on the relationship of Biodiversity, wildlife conservation and environment. Role of human for future earth.	2. Audio visual presentation, showing relevant documentary video, Banner, Display board	
2. Keep Zoo environment neat and clean	3. All groups of people visiting/ working in the zoo.	1. Discourage visitors to carry food in plastic container and polybags in the zoo. 2. Encourage visitors/ workers to use waste bin 3. Motivational training to the workers 4. Monitoring the progress	1. Establishment of 2 new food selling point inside the zoo 2. Prohibition or discouraging the carry of foods in disposable plastic container or polybags 3. Set up sufficient waste bins. 4 Use of Micking (Audio Sound system), Informative banner, Leaflet etc.	Director and curator with the help of all officials and Contractor

			<p>5. Weekly mass cleaning program</p> <p>6. Staff training (Formal/informal) at least once a month</p> <p>7. Briefing session for visitors once a week.</p>	
3. Dust and mosquito control	Zoo campus	<p>1.Spraying water on the road inside the zoo (2 times daily when necessary)</p> <p>2.Remove water logging in drain or low area.</p> <p>3. Spraying insect killer as necessary</p>	<p>1. Purchase necessary materials and machineries</p> <p>2. Depute manpower</p> <p>3. Repair and renovation of drain and other establishment as necessary</p>	Assistant Director and Zoo engineer with the cooperation of Director
3. Gradual move towards pollution free zoo	All groups of people visiting/ working in the zoo.	<p>1.Wastewater treatment</p> <p>2. Vet hospital and diagnostic lab waste safe disposal</p> <p>3. Proper disposal of waste produced in animal rearing</p> <p>3. Safe disposal of carcass</p> <p>4. Tree plantation and</p>	<p>1. Planning for waste disposal system</p> <p>2. Purchasing necessary machineries</p> <p>3. Digging pits as necessary</p> <p>4. Increased awareness among the people visiting/working in the zoo</p>	Director and curator with the help of the Ministry of Fisheries and Livestock. Our development partners can help us in this arena.

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3. Recommendations for the Bangladesh side

In order to achieve the overall goal, the action plan including priority items to be implemented and personnel and budget to be allocated has been prepared. It is therefore important to first move forward step by step toward implementing them. It is necessary to continue to identify areas where further capacity building is needed, and to seek the necessary action to be taken or the necessary budget allocations to be made.

ANNEX 1: Training Course Schedule

ANNEX 2: List of Participants

ANNEX 3: PDM

ANNEX 1 Training Course Schedule

Duration from 3 September, 2023 to 16 September, 2023

Date	Hours		Type	Contents / Activities	
3-Sep				Arrival	
4-Sep	09:30	~ 11:00		JICA Briefing	Program officer, JICA Yokohama
	11:00	~ 11:15	Orientation	Program Orientation	Program officer, JICA Yokohama
	11:15	~ 12:00	Orientation	Course Orientation	Executive director, JAZA (Japanese Association of Zoos and Aquariums)
	13:00	~ 14:45	Lecture	Transition and Roles of Zoos	Advisor, JAZA
	15:00	~ 16:45	Lecture	History of zoos in Japan	Secretary General, JAZA
5-Sep	09:30	~ 11:30	observation	Nogeyama Zoo (Educational Activities, etc.)	Manager for rearing and exhibiting animal
	13:30	~ 16:30	observation	Kanazawa Zoo (Large herbivore)	Manager for rearing and exhibiting animal, Kanazawa Zoo
6-Sep	09:30	~ 12:00	observation	Preservation and research center, the city of Yokohama (species preservation program)	Director for Preservation and research center, the city of Yokohama
	13:00	~ 16:30	observation	Yokohama Zoo [Zoorasia]	Manager for International division, Yokohama Zoo (Zoorasia)
7-Sep	11:00	~ 16:30	observation	Nasu Animal Kingdom (Bird shows and protection propagation program)	Nasu Animal Kingdom
8-Sep	09:30	~ 16:00	observation	Aquamarine Fukushima (husbandry and management of aquatic animal)	Director for Aquamarine Fukushima
9-Sep				Day off	
10-Sep				Day off	
11-Sep	13:30	~ 15:00	Lecture	Safety measures in Zoos and Aquariums	Director for Kyoto zoo, Kyoto city
	15:15	~ 16:45	Lecture	Education and promotion activities in Zoo	Higashiyama Zoo, Nagoya city
12-Sep	09:30	~ 16:00	observation	Higashiyama Zoo	Higashiyama Zoo, Nagoya city
13-Sep	09:30	~ 12:00	observation	Toyohashi Zoo and Botanical Park [Non Hoi Park] (Husbandry training)	Director for Toyohashi Zoo and Botanical Park
	13:00	~ 14:30	Lecture	Population management	Director for Toyohashi Zoo and Botanical Park
	14:30	~ 16:00	observation	Toyohashi Zoo and Botanical Park [Non Hoi Park] (Husbandry training)	Director for Toyohashi Zoo and Botanical Park
14-Sep	09:30	~ 11:00	Lecture	Nutrition	Tama Zoological Park, Wildlife conservation center
	11:00	~ 12:30	Lecture	Animal welfare	Director for Tama Zoological Park
	13:30	~ 16:30	Discussion	Reflection on the training	Executive director, JAZA
15-Sep	09:30	~ 12:00	Discussion	Reflection on the training	Advisor, JAZA Executive director, JAZA
	14:00	~ 16:30	Presentation	Presentation	Advisor, JAZA Executive director, JAZA Deputy director general for Global Environment Dept, JICA
	16:30	~ 16:40		Presentation of certificates of completion	Deputy director general for GE dept., JICA
16-Sep				Departure	

ANNEX 2

List of Participants

1	Mr. TALUKDER Dr Mohammad Rafiqul Islam	Director, Department of Livestock Services, Bangladesh National Zoo
2	Mr. HOSSAIN Md Anwar	Deputy Secretary, Livestock-2, Ministry of Fisheries and Livestock
3	Mr. RAHMAN Mohammad Mazibur	Curator, Department of Livestock Services, Bangladesh National Zoo
4	Mr. JALIL M A	Assistant Director, Bird and Nutrition Section, Department of Livestock Services
5	Mr. TALUKDER Md Amber Ali	Veterinary Officer, RANGPUR ZOO, Department of Livestock Services
6	Mr. AZAM Golam	Upaliza Livestock Officer, Carnivorous Section, Department of Livestock Services
7	Ms. NASRIN Arifa	ULO Act as Scientific Officer and Clinical Pathologist, Veterinary Hospital, Bangladesh National Zoo
8	Mr. RAHMAN Md Waliur	Veterinary Surgeon, Department of Livestock, Bangladesh National Zoo
9	Mr. HOSSAIN Md Zakir	Zoo Officer, Large Animal Section (Herbivores), Department of Livestock Services
10	Mr. BISWAS Sanjib Kumar	Senior Scientific Officer, Zoo Research Education and Survey Section, Department of Livestock Services

Project Design Matrix

Project Title (*): Project for capacity building of zoo management and animal's disease diagnosis, treatment, prevention and control

Implementing Agency (*): Bangladesh National Zoo

Target Group: Staff of Bangladesh National Zoo

Period of Project (*): Half (0.5) year


Project Site: Japan

Model Site:

Version 1.0

Dated March, 16, 2023

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
<p>Overall Goal (*)</p> <p>By practicing zoo operations and management with an awareness of animal welfare and biodiversity conservation, the zoo will be able to provide a venue for visitors to promote understanding of various international and regional animal species.</p>	<p>The management of zoo animals is properly practiced according to the action plan.</p> <p>New programs will be implemented to promote understanding of international and regional animal species.</p>	<p>Hearing or on-site confirmation</p> <p>Hearing or on-site confirmation</p>			
<p>Project Purpose (*)</p> <p>The role that zoos play is understood, and the issues related to zoo operations, animal rearing, and environmental education are identified, and action plans for improvement are drafted.</p>	<p>The trainees create an action plan for zoo operation and zoo animal management.</p> <p>Trainees plan environmental education programs with an awareness of biodiversity conservation.</p>	<p>Action plans</p> <p>Planning paper for environmental education programs</p>	<p>There is no significant change in the policy of the Government of Bangladesh to which this project relates.</p>		
<p>Outputs</p> <p>Output 1: Improve animal's disease diagnosis, treatment, prevention and control</p> <p>Output 2: Improve animal's management and feed management</p> <p>Output 3: Improve environmental care, management and education</p>	<p>1-1: Trainees can identify issues in the animal's disease diagnosis, treatment, prevention and control on their own.</p> <p>2-1: Trainees can identify issues in the animal's management and feed management on their own.</p> <p>3-1: Trainees can identify issues in the breeding environment on their own.</p> <p>3-2: Trainees can plan environmental programs on their own.</p>	<p>Action plans</p> <p>Action plans</p> <p>Action plans</p> <p>Planning paper for environmental education programs</p>	<p>There should be no significant changes in the organizational structure of the institutions involved.</p>		

Activities	Inputs		Important Assumption
	The Japanese Side (*)	The Bangladesh Side	
<p>Activity 1-1: Attend lectures on disease diagnosis, treatment, and prevention.</p> <p>Activity 1-2: Visit facilities related to disease diagnosis, treatment, and prevention.</p> <p>Activity 1-3: Conduct workshops on disease diagnosis, treatment, and prevention.</p> <p>Activity 2-1: Attend lectures on animal's management and feed management.</p> <p>Activity 2-2: Visit facilities related to animal's management and feed management.</p> <p>Activity 2-3: Conduct workshops on animal's management and feed management.</p> <p>Activity 3-1: Attend lectures on environmental care, management and education.</p> <p>Activity 3-2: Visit facilities related to environmental care, management and education.</p> <p>Activity 3-3: Conduct workshops on environmental care, management and education.</p>	<p>1 Training for Bangladesh National Zoo officials (in Japan)</p>	<p>1 Allocation of Counterpart Personnel</p> <p>2 Local costs (e.g. Transportation and accomodation cost to Shahjalal International Airport are not covered by JICA support)</p>	<p>Pre-Conditions</p> <p>The budget required on Bangladesh side for this project will be allocated without significant delay.</p> <p>There will be no restrictions on movement within Bangladesh and Japan (in compliance with coronavirus control measures).</p> <p>There will be no restrictions on participation in overseas training programs for Bangladeshi government employees and local officials (e.g., as countermeasures facing financial situation)</p> <p>The Bangladesh Zoo will be able to operate normally when the trainees arrive in Japan.</p> <p>All relevant institutions will play their respective roles in the implementation of the training program.</p> <p style="text-align: center;"></p> <p><Issues and countermeasures></p>

(*) These items should be amended by Project Description attached to the Record of Discussion