Performance of the Horowpothana Elephant Holding Ground



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01. Executive Summary

The human-elephant conflict has become a recognized severe challenge faced by the Department of Wildlife Conservation for the time being. Its long-term results will be complete disappearance of elephants from the areas outside the wildlife reservations and deprivation of crops, properties and human lives. With a view to minimizing the damages caused to lives, properties and cultivations due to said human-elephant conflict, a sum of Rs.200 million had been allocated from the budget proposal,2012 to construct four elephant holding ground in order to retain and rehabilitate the rogue male elephants. In accordance with the Cabinet Memorandum No.12/0151/549/001 dated 17 March 2012, a wild elephant holding ground has been set up on a land area of 997 hectares situated at Horowpothana in the Anuradhapura Zone. Accordingly, decisions had been reached to construct the Horowpothana Elephant holding ground first and to construct the other holding ground.

The objective of this audit is to evaluate whether the intended purposes of the establishment of Horuwpothana Elephant holding ground, that is, to minimize the human-elephant deaths and the crops damages resulting from the human-elephant conflict have been achieved thus retaining and rehabilitating the rogue male elephants at the holding ground. Further, without determining the maximum capacity of the land area of the Horuwpothana Elephant holding ground, it had been intended to retain 30 rogue elephants. Accordingly, it was observed that such elephants had been deprived of the needs integral to their lives and an appropriate environment to express their natural behavioral patterns.

According to the report of the elephant census conducted in June 2019, out of the total elephants retained in the holding ground, 12 elephants had died and 05 of them had died of malnutrition and lack of sufficient foods. Further, another two elephants had died due to unattended translocation to the holding ground. It was observed that the health condition of the elephants retained at the holding ground

remained at a poor level and no follow up action had been taken on the health of these animals.

An expenditure of Rs.159.48 million had been incurred for the erection of an electric fence of 16 k.m. in length around the Horuwpothana Elephant holding ground containing 997 hectares of land area and due to the issues found in terms of standard of the electric fence, it had been damaged by the elephants. In taking into consideration all the matters referred to above, it was observed that the objective of the establishment of the Horuwpothana Elephant holding ground could not be achieved.

As remedial measures for the above issues, it is recommended that constant supervision should be exercised on the protection of the elephant from their release to the holding ground, a conducive environment should be created to cater to their basic needs, proper follow up mechanism should be put in place on the elephant and accordingly welfare of the animals should be properly maintained. It is, further, recommended that steps should be taken to make the Horuwpothana Elephant holding ground success before the establishment of another holding ground.

Notwithstanding the shortcomings found in the Horuwpothana Elephant holding ground, the Department of Wildlife Conservation is presently constructing an elephant holding ground in the Lunugamwehera National Park under the ESCAMP Project on World Bank assistance.

2. Introduction

2.1 Background

2.1.1 Disastrous Impact Resulting From the Human-Elephant Conflict

- (a) According to the Red Data Book of the International Union for Conservation of Nature (ICUN), the Asian elephant is an animal threatened with extinction. As per the present calculation carried out based on the survey conducted by the Department of Wildlife Conservation in the year 2011, the total elephant population in Sri Lanka is 5,897. The Sri Lanka with an approximate human population of 20 million is one of the countries with high population density in the world and its principal means of living have been founded upon agriculture. With the expansion of agriculture and human settlements, elephant habitations have become contracted, thus aggravating the conflict between human and elephants. Unless necessary measures are not taken to resolve or minimize this human-elephant conflict, a large number of elephant may disappear forever.
- (b) Due to the reasons such as changes of the land use pattern resulting from the clearing of forests for development activities and illegal deforestation, deterioration and contraction of usable enriched habitats, trespassing elephants to villages for wants of foods and blocking elephant corridors for development activities, the human-elephant conflict has rapidly become intensified at present. Accordingly, human deaths, elephant deaths, physical damages and property damages resulting from the human-elephant conflict have become conspicuous. Aggravation of this human-elephant conflict during the period of past five years had resulted in causing human-elephant deaths and physical and property damages.

Year	Elephant	Human	Property	Physical
	Deaths	Deaths	damages	Damages
2014	231	67	1279	82
2015	205	63	1120	55
2016	279	88	1593	87
2017	256	87	1302	75
2018	319	96	838*	37*
As at 28	364	110	993*	55*
October				
2019				

* Since compensations are paid by the District Secretariats, total information is not available in the Department.

2.1.2 Implementation of National Policy on Elephant Conservation

While recognizing the significance of protecting elephants, the Cabinet had granted its approval to the Department of Wildlife Conservation on 20 September 2006 to implement a policy termed "National Policy on the Conservation and Management of the Wild Elephants in Sri Lanka" in order to conserve the wild elephants in Sri Lanka. Accordingly, following 06 policy statements had been included in the National Policy on the Conservation and Management of the Wild Elephants.

- Ensuring long term existence of the elephants within the forest conditions in Sri Lanka.
- (b) Taking steps to minimize and thwart the human-elephant conflict.
- (c) Receiving socio-economic benefits through the conservation of elephants.

- (d) Paying compensations to the communities affected by the human-elephant conflict.
- (e) Formulation of regulating mechanism to evict elephants from the forests according to the managerial requirements.
- (f) Promotion of scientific researches based on the conservation and management of wild elephants.

Under the second policy statement-Taking steps to minimize and thwart the human-elephant conflict, as referred to above, it has been pointed out that an access is essential to remove the rogue wild elephants that frequently invade crop cultivations and cause property damages behaving violently.

2.1.3 Welfare of the Wild Animals

According to the interpretation of the World Association of Zoos and Aquariums, the term animal welfare is to ensure necessary facilities for the animals to express their natural behavior whilst living conveniently and healthily in an environment free from anxiety and stress under a better nutrition and protective conditions. In addition, prevention the animals from contracting with diseases, provision of necessary veterinary treatments, shelter management, ensuring nutrition and exercising due care with affection are also included in the animal welfare.

2.1.4 Fauna and Flora Protection Act, No. 09 of 2009.

Legal provisions for the protection and conservation of the fauna and flora of Sri Lanka and their habitats ; for the prevention of commercial and other misuse of such fauna and flora and their habitats have been made by this Act and the responsibility of the enforcement of those legal powers have been vested in the Department of Wildlife Conservation

2.1.5 Vision and Mission of the Department of Wildlife Conservation

The conservation of wildlife heritage for present and future generation being the vision, the protection of wildlife heritage through the participatory management is the mission of the Department.

2.1.6 Establishment of Horowpothana Elephant Holding Ground

With the shrinking of forest population due to development projects initiated in parallel to the population growth, migration patterns of the elephants too have changed. As a result, elephants invade the villages and cause damages to the properties and human lives behaving violently. This has severely aggravated the human-elephant conflict, thus claiming approximately 60 to 70 human lives and 200 to 300 elephants annually. In addition, a large number of physical, property and crops damages have been reported.

Even though having captured the rogue elephants, they had been released to the national parks located in various parts of the island as a remedial measure, those elephants had returned to their original habitats and caused hazards to the people as usual. Therefore, provisions had been allocated by the budget proposal, 2012 to construct four elephant retention holding grounds to retain and rehabilitate the wild elephants that behave causing hazards to the people.

As the first phase, for the establishment of a wild elephant conservation holding ground within a land area of 997 hectares at Horowpothana in Anuradhapura Zone, approval had been received in accordance with the Cabinet Memorandum No.12/0151/549/001 dated 17 March 2012 and that center constructed at a cost of Rs.345 million was opened in the year 2015.

2.1.7 Objective of the Establishment of Elephant Holding Ground

According to the three years plan pertaining to the establishment of elephant holding ground at Horowpothana and Lunugamwehera, it had been scheduled to construct two elephant holding ground with the capacity to retain 30 and 50 elephants respectively at Horowpothana and Lunugamwehera. The objectives are as follows.

- (a) Minimizing human-elephant conflict by removing the rogue wild elephants from their habitats.
- (b) Receiving socio-economic and socio-cultural benefits by way of removing violent wild elephants from the conflict areas.
- (c) Maintenance of 80 rogue elephants.
- (d) Use of this land as an income earning venue to maintain this Elephant holding ground as a tourist destination through the ecotourism.

2.1.8 Expected Targets for the Beneficiaries

- (a) Removal of rogue elephants from their habitats.
- (b) Minimization the intensity of the human-elephant conflict.
- (c) Providing assistance to the affected human community.

2.1.9 Elephant Family

Elephant family is matriarch-led. The reason is that the adult male elephants are not allowed to be in a herd of elephant. Therefore, a herd of elephants consist of only adult female elephants and male and female calves. The male calves break away the herd at the age between 09 to 10 years and otherwise, the adult female elephants drive such elephants from the herd. The elephants thus leave or driven away from the heard are called solitary male elephants. According to the elephant census conducted in the year 2011, about 32.1 per cent of the elephants observed in Sri Lanka is solitary elephants. According to the census, the minimum elephant population in Sri Lanka is 5,879 and the number of solitary elephants is 1,887.

2.2 The Authority for the Audit

This performance audit was carried out under my direction in terms of provisions in the Article 154 (1) of the Constitution of the Democratic Socialist Republic of Sri Lanka and Sections 3 (1)(d), 5(2), and 12(g) of the National Audit Act No.19 of 2018.

2.3 Background of the Issue of Report

Finding a solution to the human-elephant conflict has become one of the major issue faced by the Department of Wildlife Conservation at present. The Horowpothana Elephant holding ground has been established as a solution to that issue. After conducting an study on the objectives of the establishment and the performance thereof, this report is presented in order to enlighten the parties responsible for that matter.

2.4 Audit Access

2.4.1 Examination of Registers, Books and Records

- (a) Fauna and Flora Ordinance No.02 of 1937 (Cap.469) and the amendments made thereto
- (b) Gazette notifications and Cabinet decisions
- (c) National Policy on Conservation and Management of Sri Lankan Wild Elephants- 2006

- (d) Performance Reports of the Department of Wildlife Conservation from the year 2014 to 2018
- (e) Three years plan on the construction of elephant holding ground at Horowpothana and Lunugamwehera
- (f) Report of the Elephant Census-2019 conducted at the Horowpothana Elephant holding ground
- (g) Written clarifications and confirmations made by various entities

2.4.2 Conduct of Interviews

Discussions conducted with nature lovers and written clarifications of the officers

2.4.3 Physical Inspections

- (a) Inspection carried out on the construction of the Horowpothana Elephant holding ground
- (b) Inspection of the foods externally supplied to the Horowpothana Elephant holding ground

2.5 Objective of the Audit

The objective of this audit is to examine whether the following activities of the Horowpothana Elephant holding ground, which was established as a solution to the human-elephant conflict, have been carried out.

- (a) Before the construction of elephant holding ground, carrying out evaluation on the impact posed to the environment.
- (b) Nourishing habitations of the elephants retained in this holding ground.

- (c) Capability of expressing natural behaviors of the elephants.
- (d) Method of rehabilitating the rogue elephants.
- (e) Examining as to whether the human- elephant deaths and property damages have decreased compared to the preceding years due to construction of this holding ground.

2.6 Criteria of Audit

The following laws, rules, regulations and project reports were considered.

- (a) Fauna and Flora Ordinance No.02 of 1937 (Cap.469) and the amendments made thereto.
- (b) Three years plan on the construction of elephant holding ground at Horowpothana and Lunugamwehera.
- (c) Report of the Elephant Census-2019 conducted at the Horowpothana Elephant holding ground.
- (d) Research report on the behavioral pattern of the elephants released to the Horowpothana Elephant holding ground.
- (e) Biological facts on the behavioral pattern, consumption pattern and social structure of the elephants.

2.7 Scope of Audit

I conducted my audit in accordance with the International Auditing Standards of Supreme Audit Institutions (ISSAI 3000-3200). This performance audit was limited to the examination of Horowpothana Elephant holding ground and the proposed Elephant holding ground at Lunugamwehera. The contribution made by the Horowpothana Elephant holding ground relating to the provision of food and water, health facilities, shelter management for the elephant retained at that holding ground and the contribution made for the minimization of human-elephant conflict was evaluated and the activities implemented by the Department of Wildlife Conservation relating to the above matters from 16 October 2015 to 30 September 2019 were examined.

2.8 Limitation of Scope

In the preparation of this project, my scope was subject to the following limitations.

- (a) Delays occurred in the submission of necessary information by the Department of Wildlife Conservation
- (b) Data had not been updated.
- (c) Absence of a database relating to the number of animals.

3. Audit Observations

3.1 Selection of the Relevant Land for the Elephant Holding Ground

3.1.1 Environmental Evaluation Report

The forest in which the Horowpothana Elephant holding ground is located is a mixed and dry evergreen forest of secondary nature. The canopy of these types of forests consist of the trees with hard trunks such as *Palu, Weera* standing comparatively in a considerable distance. Similarly, apart from the elephants, the various animals such as buffalos, deers live in this forest reserve and an electric fence is required to be erected around the land in which the elephant holding ground is expected to be constructed. All the animals living in the area should be recognized through the conduct of a census and removed before the construction the holding ground. Similarly, some trees of the forest reserve have to be removed before the construction of electric fence. Therefore, an assessment on the impact that may pose to the environment should be carried out before the commencement of this project, whereas no assessment whatsoever had been carried out in that connection.

3.1.2 Adequate Spacious Facilities

The maximum capacity to retain elephants within one square meter area of primary and secondary forests is 0.2 and the forest in which this holding ground consisting of 9.97 square kilometer (997 hectares) is a forest inclusive of characteristics of a secondary forest. In order to maintain the elephant population density equally to the natural environment, requirements such as removal of invasion plants, creation of meadows and upgrading the quality of externally supplied foods should be fulfilled. Nevertheless, irrespective of the above fact, steps had been taken to retain 30 rogue elephants within an area of 9.97 square kilometer (997 hectares) of land.

3.1.3 Impact on the Other Biodiversity Species

Of the Horowpothana National Park consisting of 1,698.76 hectares declared by the Gazette (Extraordinary) No.1735/21 dated 06 December 2011, a land area of 997 hectares or about 58 per cent had been utilized for the elephant holding ground, thus depriving the other animals of their habitations. Similarly, it was observed that since animals had not been properly identified through a formal study, a buffalo, a female elephant and a claves had been in confinement due to construction of electric fence.

3.1.4 Elephant Population at the Holding Ground

According to the records of the office of the Horowpothana National Park, the rogue elephants captured from various parts of the island from 04 September 2015 to 25 June 2019 had been released to the holding ground in 52 instances. The relevant details appear below.

Year	Number of Elephants		
	Released		
2015	10		
2016	16		
2017	11		
2018	11		
First 06	04		
months in			
2019			
	52*		
	=====		

* Since the Thanidalaya (single tusker) had broken away from the holding ground, it had been entered therein on two occasions.

The following observations are made in this connection

- (a) According to the report of the elephant census conducted in June 2019, out of 52 elephants retained in the holding ground, only 09 elephants were remaining and 12 elephants had died on various reasons. The Department lacked information as to whether the remaining 31 elephants had either died or fled the holding ground.
- (b) Under the Wildlife and Fauna and Flora Protection Ordinance, an animal born in a zoo is not considered as a wild animal and according to the Paragraph 10 of the Code of Ethics and Animal Welfare issued by the World Association of Zoos and Aquariums (WAZA), such animal should be released to the forest gradually. Nevertheless, two elephants belonging to the National Zoological Garden had been released to the holding ground in two instances without any prior training.
- (c) Even though the main objective of the establishment of holding ground was to minimize the human-elephant conflict by capturing the elephants that caused damages to property, lives and cultivations, step had been taken to release the two elephants belonging to the National Zoological Garden to the Elephant holding ground, contrary to the above objective.
- (d) According to the reports, it was observed that the above two elephants were active and of sound physical and health condition at the time of releasing them to the Elephant holding ground. Nevertheless, it had been reported in the post mortem report of the elephant called Jayathu that the respective elephant had died on 25 October 2016 due to scarcity of foods. There was no information with the Department to establish whether the other elephant was alive or dead.

3.2 Requirements to be Available in an Elephant Holding Ground

3.2.1 Construction of Electric Fence

By spending Rs.159.48 million, an electric fence of 16 kilometers in length had been erected around the Horowpothana Elephant holding ground consisting of 997 hectares of land and construction thereof had been initiated in the year 2012 and completed in the year 2015. The following observations are made in this connection.

(a) The Concertina Razor Barbed wires with large spirals which are used for the prison barriers, detention camps, anti-riots etc. had been used for the construction of electric fence around the Horowpothana Elephant holding ground. As these wires used for the electric fence comprise sharpen blades and barbed wires, animals may be subject to injuries.



(b) When the elephant that had been captured from the Ampara Mahawewa area and released to the holding ground attempted to fled the holding ground, its limbs and legs had been injured. Subsequently, it had succumbed to bacterial infection.

3.2.2 Construction of Ponds and Waterholes

Five ponds with 20,000 liters water capacity and 04 ponds with 2000 liters water capacity had been constructed at a cost of Rs.3,312,778 in the years 2018 and 2019 respectively. The following observations are made in this connection.

(a) Water should be fetched from outside areas to fill the ponds and waterholes so constructed and it had not been possible to supply water to those ponds and waterholes owing to lack of a water bowser to the office of the Horowpothana National Park and scarcity of water in the water sources in the area.



(b) According to the 5th Paragraph of the research book titled Biology, Medicine and Surgery of Elephants compiled by Murray E Fowler and Susan K Mikota, an elephant needs averagely 200 liters of water per day and the water of a pond should be in such a level sufficient enough to fill the trunk of an elephant at a stretch. Nevertheless, as the ponds constructed in this area are dried out of water during droughts, elephants do not receive sufficient volume of water during those seasons. (c) The needs for the ponds are more important during the droughts. Nevertheless, at the time of planning the construction of these ponds, a study had not been conducted as to how water could be received during the drought seasons. As such, the constructed Mahapuliyankulama Tank, 5th Post Tank and Siyambalapitiya Tank had dried out of water during droughts.





3.3 To Meet the Requirements of Retained Elephants

3.3.1 Requirements of Foods of the Wild Elephant

The food requirement of a well fed wild elephant is 300 kilograms per day in average and an elephant spends nearly 17 hours to have meals in order to meet its food requirement. While partaking meals, vast quantity of foods is wasted by crushing and thrashing by the elephants. Therefore, in addition to its normal food requirement of 300 kilograms, another 100 kilograms or an approximate amount of foods should be provided in supplying foods. Accordingly, if 30 elephants are retained in the holding ground, their daily food requirement is 12,000 kilograms. The following observations are made in this connection.

(a) Although daily food requirement of 30 elephants is 12,000 kilograms, since the forest in which this holding ground is situated consists of the features of a

secondary forest, the above quantity of foods cannot be supplied from the trees available in the holding ground.

(b) Although grass lands have been developed within the holding ground, it was observed at the physical inspection that the above grass lands had dried up.





- (c) A contract worth Rs.26,133,700 had been awarded to supply 2,800 kilograms of jackfruit leaves, mixed leaves and pumpkins daily for 30 elephants retained in the holding ground from 01November 2018 to 31 October 2019. It was observed at the physical inspection that a large quantity of leaves had dried due to not partaking such leaves and no adequate supervision had been exercised on the quality of foods thus supplied externally.
- (d) Study had not been conducted with regard to the quantity of foods eaten by the elephants and on the remaining quantity of foods from the daily external food supply, the number of wild elephants arrived at the places of food supply and the number of turns of elephant arrivals to such locations. Further, the appropriate locations to provide such foods had not been specifically determined.

- (e) The Horowpothana Wildlife Range Office lacked the necessary instruments to weigh the externally supplied foods and therefore, a scale fixed in a private rice mill was used for that purpose. Nevertheless, an officer had not been deployed to carry out supervision at the weighing holding ground and payments had been made without confirming the accuracy of the weight of food items.
- (f) As a research had not been conducted to recognize the leaves and branches suitable to supply for the wild elephants, it was confirmed in the audit that the wild elephants did not partake tamarind leaves although a condition had been included in the agreement to supply tamarind leaves.
- (g) Although the number of elephants retained in this holding ground was 9 as per the elephant census conducted in June 2019, foods had been supplied for 30 elephants. Accordingly, foods valued at Rs.6,559,245 had been excessively supplied in respect of 21 animals from 01 August to 31 October 2019.
- (h) It was observed in audit that the insertion of the externally supplied foods in the food retaining section of the holding ground (over the fence) was difficult and a platform had not been prepared to insert the foods conveniently in the food retaining section.
- (i) Although the agreement relating to the external supply of foods had terminated on 31 October 2019, necessary steps had not been taken to call for fresh tenders for the supply foods externally.
- (j) In terms of Minutes No.23-IX of the Procurement Committee Meeting on 30
 October 2018, it had been decided to re-call for bids for the supply of grass.
 Nevertheless, action had not been so taken even by 30 September 2019.

3.3.2 Roaming Requirements of Elephants

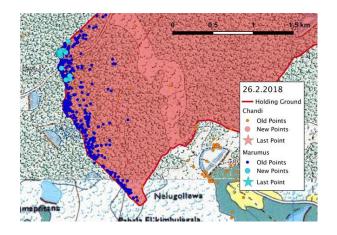
A considerable extent of land area is selected by the wild elephants as their habitation in order to meet that habitation requirement. It is observed according to the records of the Department of Wildlife Conservation that a matriarch-led herd of elephants use 2,540 hectares of land as their range of habitation while a male elephant uses 13,376 hectares for its normal behavior. According to the island wide elephant census conducted by the Department of Wildlife Conservation in the year 2011, it has been identified that 67.2 per cent of the wild elephant population lived in wildlife conservation and 3.02 per cent in forest reserves of the Department of Forest Conservation and 3.02 per cent lived in the jungles independently scattered in the island. In view of the belief of the Department of Wildlife Conservation, 3.02 per cent wild elephants thus roaming in the independently scattered wildernesses directly involve in the human-elephant conflict. The following observations are made thereon.

- (a) Elephant is a migrant animal and it roams about a distance of 20 to 25 kilometers per day. The elephant is more active in the night. Since elephants consume a large quantity of foods, they walk a long distance. The wild male elephants roam over a large extent of land about 600 kilometers during their period of musth. Therefore, as a result of confining these elephants in a holding ground consisting of only 997 hectares of land, those animals had lost an appropriate environment to live independently expressing their normal behavioral patterns.
- (b) It is a biological need of animals to have an appropriate habitation to live and an environment to lead a satisfactory life. Only the male elephants are released to the holding ground, but no female elephants are entered therein. It precludes passing genes to next generation. As a result of capturing and retaining wild elephants in a confinement forever, such animals may die and

it may result in diminishing inherent strength of the Sri Lankan elephant generation.

3.3.3 Attaching VF-Radio Collars

The Department adopts the methodology of attaching VF-Radio Collars to ascertain whether the elephants are living safely and to track down them in case of any hazard. Collars had been attached on three elephants of the Horowpothana Elephant Holding Ground. Details thereon are as follows.



Although collars had been attached on only three elephants, no suitable methodology had been adopted to study behavioral patterns of the 49 elephants of the elephants released to the holding ground.

3.4 Non-achievement of the Expected Objectives

3.4.1 Validity of the Concept of Elephant Holding Ground

(a) With the objective of minimizing elephant-human conflict, although 10 to 15 rogue wild elephants were annually captured and released to the holding ground during the period 2016-2018, elephant deaths, human deaths, property damages and physical damages had not decreased during that period.

- (b) The forest populace decreases due to development activities further in progress and elephants become rogue, day by day. Accordingly, it was observed that the construction of holding ground of this nature was not the only solution for minimizing human-elephant conflict.
- (c) The vision of the Department of Wildlife Conservation is to conserve wildlife heritage for present and future generation. In order to ensure the freedom and needs of the human beings, elephants are confined to this holding ground. Since elephants are so retained while depriving them of their natural way of life only for the survival of the human being, it had not been ensured the protection of elephants, but assured the security of the people by controlling elephant community.
- (d) In terms of Cabinet Memorandum No.8/2012, it was stated that plans had been drawn to capture, conserve and rehabilitate the rogue elephants. Nevertheless, there was no evidence that such conservation or rehabilitation had been carried out.

3.4.2 Health Condition of the Elephants Released to the Horowpothana Elephant Holding Ground

- (a) Although it had been recorded in the register used for the admission of elephants to the Horowpothana Elephant holding ground that the health condition of 15 out of 51 elephants remained at a poor level at the time of their entering in the holding ground, no follow up actions had been taken on those animals.
- (b) Similarly, an internal transport arrangement had been made within this holding ground, whereas a proper methodology had not been introduced to

oversee the food requirements, health facilities etc. of the 51 solitary elephants released to this holding ground.

(c) Although management of the Wildlife Rehabilitation Centres had been included in the main functions of the Wildlife Health Management Division, it was observed that the management of Horowpothana Elephant holding ground had not been properly carried out.

3.4.3 Elephants' Fleeing

- (a) Since the Elephant holding ground being an unfamiliar locality to the elephant released to that holding ground, those elephants constantly make attempts to flee from the holding ground and it was observed according to the VF-Radio Collar data that some elephants so fled was roaming in the villages due to failure in finding out their habitats and some elephants have directly returned to their original habitats.
- (b) As a results of constant attempts made by these elephants to flee from the holding ground, elephants had damaged the electric fence in 06 instances from 20 September 2017 to 14 October 2019 and a sum of Rs.683,417 had been spent to repair the posts of the damaged eclectic fence.

3.4.4 Translocation of Elephants

Under the translocation of elephants, after being captured the elephants by anesthetizing them within their habitations, they are removed from such traditional habitations with the use of a mode of transport such as loading in a lorry. Due to anesthetizing the elephants with poor health condition and not adopting secured transport methods, two elephants with poor health condition had died on their transportation to the holding ground owing to falling out of the lorry. The following two pictures depict the manner in which the two elephants called *Kanehila* and *ThaniDalaya (Chandi)* had been tied to transport to the Horowpothana Elephant holding ground.



Kanehila



ThaniDalaya

3.5 Lunugamwehera Elephant Holding Ground

Although there were shortcomings in the already constructed Horuwpothana Elephant Holding Ground, a proposal had been made to construct an elephant holding ground consisting of 3000 acres in the Lunugamwehera National Park under the ESCAMP Project on World Bank assistance in order to retain the rogue elephants in Sri Lanka and approval therefor had been received on 11 August 2017. The following matters were observed in this connection.

(a) Even though the average area of habitation of a wild elephant is reckoned as 50 km² -600km², the proposed Holding Ground at Lunugamwehera is about 35km² in extent. Accordingly, that extent of land is not sufficient at least for a single elephant to move freely.

- (b) Due to the development activities carried out in Mattala area, about 400 elephants lived in that area had lost their habitats and they had been driven away to the Lunugamwehera Reserve. It had resulted in further increase in the elephant population of the Lunugamwehera Reserve. In such circumstances, the use of another extent of land in that area for these types of constructions results in decrease in animal habitations.
- (c) Animals such as elephant, deer, buffalo, leopard and fox live in large herds in the Lunugamwehera National Park as their habitation. Even though it had been decided at the progress evaluation meetings and advisory committee meeting conducted during the implementation of this project that a census should be conducted on those animals and reached a conclusion on the number of animals lived therein, such census had not been conducted.



(d) Before the construction of proposed electric fence, the animals living in that area should be completely removed and plans should be drawn with regard to the provision of nourishments for the animals thus removed. Nevertheless, no such plan whatsoever had been prepared by the Department.

- (e) Although the animals thus removed are driven away from the premises of the holding ground, if foods, water, and spaces become inadequate for the animals already living outside that area and the animals so removed, it may lead to a massive destruction of animals during drought seasons.
- (f) Although the main objective of this holding ground is to rehabilitate the rogue elephants, a decision had been reached at the progress review meeting conducted on 21 April 2018 that a proper methodology should be prepared regarding the manner in which the rehabilitation process is carried out after an elephant is handed over to this holding ground and criteria should be recognized to ensure that the animal is properly rehabilitated, whereas neither such methodology or criteria had been prepared or identified as yet.
- (g) As a methodology had not been planned to release the elephant from the holding ground on their completion of rehabilitation, the space therein may be insufficient in days to come.

4. **Recommendations**

- 4.1 It is recommended that constant supervision should be exercised and proper follow up measures should be adopted on the elephants since their releasing to the holding ground and accordingly, welfare of the animals should be duly maintained.
- 4.2 It is recommended that the feeble elephant with poor health condition should not been released to the holding ground and necessary medical facilities should be made available for such elephants and follow up actions should be taken thereon.
- 4.3 It is recommended that proper methodology should be devised in respect of performing proper treatments to the elephants and preventing from diseases.
- 4.4 It is recommended that suitable foods for the elephants should be externally provided and proper supervisions should be exercised on the quality of such foods.
- 4.5 It is recommended that grass lands should be further developed within the Horowpothana Elephant holding ground in order to make it an attractive environment to the elephants.
- 4.6 A proper arrangement should be made to provide adequate volume of water to the elephants.
- 4.7 It is recommended that action should be taken to strengthen the electric fence.
- 4.8 It is recommended that relevant opportunities for the transportation should be made available so as to ensure ensuring safety of the elephants in their transportation to the holding ground.
- 4.9 It is recommended that necessary facilities should be provided for the elephants released to the holding ground to live healthily under sound nutrition condition and secured environment whilst expressing their natural behaviors freely without any stress.

- 4.10 It is recommended that a programme should be implemented to attach VF-Radio Collars on each elephant retained in the holding ground.
- 4.11 Since unrest may prevails among the elephants already in the holding ground when releasing new elephants to the holding ground, new elephants should be separately retained and gradually accustomed them to behave with the other elephants.
- 4.12 It is recommended that in order to minimize the elephant-human conflict, the public should be educated to construct a temporary electric fence joining with the farmers' associations during the cultivation periods to prevent cultivation damages and to construct an electric fence by combining villagers to prevent physical and property damages.
- 4.13 It is recommended that action should be taken to make the Horowpothana Elephant holding ground successful before the construction of other holding ground.

W.P.C.Wickramaratne Auditor General