



ABSTRACT

Disaster Management - COVID-19 - Opening of **Zoological Parks** - Standard Operating Procedure (SOP) - Orders - Issued.

REVENUE AND DISASTER MANAGEMENT (DM-IV) DEPARTMENT

GO.Ms.No. 628

Dated: 10.11.2020

சார்வரி, ஐப்பசி 25
திருவள்ளூர் ஆண்டு 2051

Read :

1. G.O. (Ms) No.613, Revenue and Disaster Management (D.M.IV) Department, dated 31.10.2020
2. From the Principal Chief Conservator of Forests and Chief Wildlife Warden letter No.WL4/38782/2020 dt. 04.11.2020

xxxx

ORDER:

Considering the recommendations of the expert team of Doctors and Public Health specialists and based on the directives of Government of India, Ministry of Home Affairs, State-wide lockdown was extended from time to time and lastly extended up to 30.11.2020 under the Disaster Management Act, 2005 with certain restrictions and relaxations along with guidelines vide G.O.Ms.No.613, Revenue and Disaster Management (DM.IV) Department, dated 31.10.2020.

2. In the above Government Order among other things **Zoological Parks** were permitted to open by following the Standard Operating Procedures. Accordingly, Environment and Forest Department have sent Standard Operating Procedures (SOP) for opening of Zoological Parks.

3. The Government after careful examination hereby issue Standard Operating Procedures (SOPs) for opening of **Zoological Parks** as in the Annexure.

(By order of the Governor)

K.SHANMUGAM
CHIEF SECRETARY TO GOVERNMENT.

To
The Additional Chief Secretary,
Environment and Forest Department, Chennai -09

The Additional Chief Secretary and Commissioner of Revenue
Administration, Chepauk, Chennai-5.

The Commissioner, Greater Chennai Corporation, Chennai-03
The District Collectors of Chengalpattu, Vellore, Salem Districts.

Copy to

The Hon'ble Chief Minister Office, Chennai-09

The Private Secretary to Chief Secretary to Government,
Chennai-9.

/Forwarded By Order/

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10/11/2020
SECTION OFFICER.

ANNEXURE**Standard Operating Procedure (SOP) for Government Zoological Parks**

The Standard Operating Procedure are to followed by the following:-

1. Guidelines for Zoo Visitors
2. Guidelines for Zoo Staff with Visitor Interface
3. Guidelines for Zoo Staff with Animal Interface
4. Guidelines for License Holders of various premises (Restaurant, Souvenir Shop, etc.)

1. Guidelines for Zoo Visitors

1. Visitors may come to the Zoo only when they do not have symptoms of cough, cold and fever.
2. Adults above 65 years are requested to avoid visiting the Zoo until normalcy returns.
3. All visitors shall compulsorily wear facemasks while entering the Zoo premises. In case they forget to carry a face mask, they will have to buy one from the counter at the entrance of the Zoo.
4. Prospective visitors are encouraged to opt for e-ticket booking over manual ticket collection.
5. All visitors shall compulsorily pass over the medicated foot mat at the entrance of the Zoo. Provisions for foot operated hand wash basins will be available and visitors will be encouraged to use those.
6. Visitors shall undergo body temperature scanning while entering the Zoo premises.
7. All visitors shall maintain social distance while inside the Zoo premises.
8. Social distancing is to be maintained while using visitor facilities. (Ticket counters, washrooms, Battery operated vehicle boarding point, water points, shops, cloak room, etc.).
9. No visitor shall enter the luggage/cloak room, as it would lead to crowding. Visitors will be encouraged to avoid carrying luggage and if unavoidable, visit with minimal luggage that needs cloak room facility, as it is likely to lead to more interaction with other persons.
10. Interaction of visitors with the Zoo staff is to be kept to a minimum, and even if it is required, social distance of minimum 6 feet must be ensured.

11. Touching barricades and other surfaces should be avoided, so as to minimize the chances of spread and contamination.
12. Visitors' movement inside the park must be along designated visitor path only, and diversions should be avoided.
13. Visitors shall avoid spitting inside the Zoo premises.
14. Visitors shall avoid use of pan masala, gutka, khaini and not spit in the Zoo premises.
15. With respect to the Battery operated vehicles, members of the same family will be encouraged to avail a separate vehicle. They will occupy all seats, leaving a seat besides the driver vacant. Only two visitors per row will be allowed, in case the visitors are from different family.
16. All visitors shall be under CCTV Surveillance, and a penalty of up to Rs. 1000/- per head will be imposed against violators of these guidelines.
17. As per the Central Government's directives, persons above 65 years of age, persons with co-morbidities, children below 10 years and pregnant women should avoid coming to the zoo.
18. Public spaces with a possibility of crowding such as Children's Park, Nocturnal Houses, Butterfly Park, Aquarium, walk through Aviary, Reptile House, Underwater Gharial, Forest Museum, Interpretation Centre, Lion and Deer Safari shall remain closed to avoid congregation of visitors.
19. CCTV surveillance and public address system will be utilized to regulate the visitor movement inside the zoo.

2. Guidelines for the Zoo staff with Visitors interface

a. General Guidelines for all sections staff

1. All employees shall ensure the highest level of personal hygiene, both at the Zoo and at their residences, on or off duty.
2. All employees shall strictly follow the directions issued by the Government with respect to COVID19 from time to time.
3. An Employee shall come to the Zoo only when he does not have typical symptoms of COVID19.
4. Any employee suffering from cold, cough and fever shall abstain from coming to the Zoo and inform his supervisor over phone in this regard.
5. Every employee shall strictly maintain social distancing while working at the

Zoo and even while interacting with the other staff, senior officials and the Zoo visitors.

6. Every employee must wear a facemask while coming to the Zoo and returning home, interacting with other colleagues and visitors.
7. Every employee must pass over foot dip at the entrance and sanitize his / her hands before entering the Zoo premises.
8. Every employee shall get his / her body temperature checked at the entrance of the zoo and proceed further only after he/she gets permission from the nurse checking the body temperature.
9. Every employee must change his/her dress to work uniform in changing room before getting to work.
10. All employees shall strictly maintain hygiene and cleanliness while working at the Zoo and there after.
11. All employees shall maintain social distance during tea and lunchtime. If required, they can go to canteen in different batches. In this regard, FRO shall work out the time schedule for different sections.
12. If the Zoo staff notice any person suffering from cold, cough and fever, he/ she shall be assisted to reach the exit gate at the earliest by maintaining social distancing, and if needed, arrangement shall be made for shifting to designated hospitals.
13. Water should preferably be brought from their respective homes so that chance of contamination at water points is minimized.
14. Chewing pan, supari, gutkha, khaini and spitting inside Zoo premises must be strictly avoided.
15. Communication / discussion over mobile phones are welcomed so that personal contact is minimized.

b. Guidelines for Range Officers, Foresters and Forest Guards

1. On a daily basis, the entire Zoo premises should be disinfected with soap water and Lysol. In case of demand of disinfectant, 1% hypochlorite solution can be used instead of Lysol.
1% hypochlorite (320 gram of bleaching powder in 10 litres of water or 1 kg of bleaching powder in 30 litres of water)
2. All the accessible toilets and wash basins must be provided with hand wash gel or soap for the purpose of frequent hand wash by staff.

3. Zoo officials and Staff members are strictly advised to wear disposable face mask, covering the nose and mouth during the working hours and travel time.
4. Waste bin with closed lid should be provided at all accessible points in the Zoo premises.
5. Adequate drinking water facility should be made available at prominent points to keep the staff hydrated.
6. Proper hygiene and physical distancing must be maintained. Staff are strictly advised to maintain 2 metre or 6 feet distance from each other. Shaking hands and hugging as a matter of greeting should be avoided.
7. Gathering of more than 5 staff should be avoided. **Care should be taken by the FRO and Forester to ensure that staff do not gather while marking their attendance.**
8. During travel and waiting time near the boarding and deboarding point, the staff members are advised to wear disposable face mask and to maintain physical distancing.
9. **Gathering of two or more staff members during tea break or lunch should be strictly restricted.**
10. Surfaces like desk and tables and objects like telephone and keyboard should be wiped with disinfectant on a daily basis at the Range office and other offices.
11. Any keeper with fever, running nose, shortness of breath and sickness or any history of recent foreign return by housemates must intimate the fact to the concerned Range officer immediately. If any of the staff is observed to suffer from mild cough or low grade fever 37.3 C, the person should be advised to stay home and reach the primary health center near his locality. FROs should ensure that the temperature check by IR reader is done for suspected staff who report such symptoms and should direct him/her to the local District medical facility.
12. The concerned Forest Range Officer should maintain stocks of protective kits procured based on the number of staff planned to be deployed for work.
13. In the absence of the regular animal keeper, the concerned Range officer should allot a person who is previously experienced in handling the particular species / animal.

c. Guidelines for House keeping

- i. Signages reminding about the importance of social distancing and wearing of facemasks are to be placed at key points (vehicle parking area, entrance gate, ticket counter, water points, child care unit,

- washrooms, etc.) in the Zoo premises.
- ii. Foot dip with KMnO₄ is to be placed at the entrance gate of the Zoo and its functionality checked daily.
 - iii. Hand wash and hand sanitizers are to be placed at washrooms and water points.
 - iv. All washrooms are to be cleaned at least twice a day. Once before the start and second, at the end when all the visitors have exited.
 - v. All washrooms are to be sprayed with sanitizers at the end of day after all the visitors have left.
 - vi. All the barricades are to be sprayed with sanitizers at least once a day.
 - vii. All waste, especially facemasks discarded by zoo staff and visitors are to be handled very safely and disposed of as bio-medical waste.
 - viii. Only visitors with masks will be allowed entry into the Zoo premises and a mask sale counter for those visitors who wish to purchase, should be set up.

d. Guidelines to Ticket Counter Staff

- i. E-Ticketing will be promoted to avoid manual collection of ticket from the Zoo ticket counters. Wide publicity to opt for e-ticketing will be provided through the Zoo website and social media.
- ii. All the staff should compulsorily wear face mask, hand gloves and face shield.
- iii. Maintenance of social distancing has to be strictly implemented while issuing tickets. Ground or floor marking to indicate social distance to be maintained while standing in queue for entrance ticket purchase, may be carried out to facilitate this for the visitors. Only one of the family members will be encouraged to buy the tickets from the ticket counter.
- iv. Currency is to be handled very carefully and with proper gear.
- v. Alternate ticket counters are to be opened to facilitate social distancing.
- vi. Automatic sanitizer dispenser will be installed in front of the ticket counters, and visitors at the counter will be asked to use that before handing over the cash to the staff at the counter.

e. Guidelines for Cloak room staff

- i. Facemasks and hand gloves are compulsorily to be worn.
- ii. Visitors can be guided to keep their luggage in cloak room to reduce physical contact.

f. Guidelines for Visitor Parking

- i. All visitors' vehicles will be made to pass through the tyre bath filled with recommended concentration of hypochlorite solution. The solution will be changed daily.
- ii. Maintenance of social distance by the visitors at vehicle parking, at the entrance gate, while buying ticket and parking the vehicle, has to be ensured.
- iii. Body temperature of all the visitors is to be screened and only those visitors with normal temperature will be allowed in.

g. Guidelines for Security (Squad Unit)

- i. All the staff at ticket checking, are to wear facemasks, hand gloves, face shield and maintain adequate social distance.
- ii. Any person who appears to be suffering from cold, cough and fever should be restricted from entering the zoo, and if necessary, be sent to a designated medical hospital while ensuring social distance from such persons.
- iii. All metal detectors, entrance gate, ticket scanning gates, mobiles, ticket machines, torches, umbrellas etc. are to be sanitized daily.

h. Guideline for Battery Operated Vehicle Staff

- i. All the drivers are to wear facemasks, gloves while taking visitors around the zoo.
- ii. Vehicles are to be sanitized after every round. Limiting the contact between the driver and visitors should always be supervised.
- iii. During waiting time, people are to sit at least 6 feet away from each other.
Marking of seats is to be made.
- iv. All members of one family may occupy all seats or else only two visitors per row of seats in a vehicle may be allowed. Staff should facilitate seating arrangements as per requirement.
- v. All visitors should wear facemasks throughout their visit.

- vi. Visitors are to be politely reminded about the importance of social distancing and wearing facemasks in public places.

Guidelines for Zoo Staff with Animal Interface

a. Guidelines for Animal Keepers at the animal enclosures

1. The animal keepers should practise strict personal hygiene. They must wash their hands with hand wash, carbolic soap or use hand sanitizer and wear face mask before approaching their respective enclosures.
2. Foot dip with sanitizer is to be available at their respective animal enclosures and hand wash, hand sanitizer and facemask are also to be made available.
3. **All the animal keepers are asked to refrain from touching or kissing the animals and also from unnecessary touching of cages.**
4. The animal keepers should count their animals before starting to clean the cell and enclosure.
5. They should observe all animal inmates by seeing the gait, food remains, urine and faeces. **If any abnormalities are observed the fact should be reported immediately to the concerned Rangers, Veterinary doctors and Biologists without fail.**
6. The night cell should be thoroughly cleaned with fresh water after removal of food remains and faeces.
7. Daily clearing of sewage and drainage of animal enclosure.
8. **Dusting of turmeric powder** in the cells for disinfection. Animal keeper should wear **disinfectant dipped foot wear** before entering the cell.
9. Keepers handling feed of animals should sanitize their hand before and after handling feed materials. Feed should be distributed hygienically, wearing mask and gloves. Animal keepers should wash their hands as prescribed before handling feed.
10. Animal cages and exhibit area should be cleaned and disinfected twice on a daily basis - Morning between 9 to 9.30am and evening 4 to 4.30pm (before placing the feed at the animal houses). **A register should be placed at each animal enclosure; entry should be made and signed by the respective animal keeper. Duty Forester should verify the same on a daily basis and record it in the register maintained at each enclosure.**
11. Area around the animal enclosure must be sanitized with 1% hypochlorite solution.

12. Public viewing area and gallery should be disinfected with lyzol on a daily basis.
13. Animals should be provided with clean drinking water.
14. Entry of unauthorized personnel inside the animal enclosure should be prohibited.
15. Any fight among animals, injuries or any abnormality noticed should be immediately brought to the notice of the Vets through proper channel.
16. Animals released into open yard must be locked into cell in the evening without fail. Failure to do so should be intimated to the concerned officer immediately and the FRO concerned shall allot a night duty watchman to monitor the animal.
17. Animal keepers should record all their day-to-day observations, important findings, birth, death, feed taken, etc. in their note book.
18. They should lock the cells and second and third layer compartment without fail. Animal safety measures should be double checked by the Duty **Forest guard**.
19. Wet moat water and aquatic bird water should be cleaned periodically as per schedule.
20. Only new face masks and hand gloves should be used daily by the animal keepers and caretakers when they start the duty for the day at the animal enclosure.
21. If any animal keeper happens or needs to cough, he should **cough at his elbow**, not at his palm.
22. Used masks and face masks should be disposed of only in Closed Waste bins. Disposal of all the wastes (food remains, faecal material and bones) must take place every day properly without stocking.
23. All animal keepers should be present at their respective enclosures and unnecessary visiting of other animal enclosures should be strictly avoided so as to avoid cross contamination.
24. As and when they get an opportunity, they should remind visitors about social distancing and facemasks.
- **Range Officers and Biologists/Veterinarians should ensure this once in three days and record it in the register kept at each enclosure.**

b. Guidelines to be adopted at Feed Store

1. The Feed Received at the Feed Store should primarily be checked by the Duty Forest staff with respect to quantity and quality, handling, and storage.

2. The FRO should ensure the timely supply of the daily feed.
3. The perishables are the major portion of the feed requirement.
4. Feed should be quantity and quality checked and further graded.
5. All the Feed Store staff should wear hand gloves, boots and mask.

6. Perishables

- a. All the perishables supplied by the feed contractors that are received on daily basis should be cleaned in 1 %Potassium permanganate solution.
- b. All the feed crates are to be cleaned daily by dipping in potassium permanganate (KMno₄) solution. Veterinary doctor/Biologist will monitor these activities.
- c. The perishables should be graded and taken into the feed allocation room. Here individual crates are present according to the animal ID. No. According to the dietary requirement all the vegetables, fruits and perishables including egg are to be meticulously distributed to the individual animal crates that are numbered. Each crate should be added upon with other essentials like prescription diets / enrichment feed / pregnancy feed / lactation feed and then placed in the feed delivery vehicle for delivery at the various animal enclosures.
- d. The respective animal keeper should take of the distribution crates and feed their animals according to the number of animals in holding.
- e. Other feed like bran, cattle feed, feed pellets are to be stored according to the requirement, and generally 15-day stock is to be stored.

7. Beef and liver

- a. The quality (organoleptic evaluation) should be first assessed by the veterinarian and the entire quantity should be further passed and retail cuts can be made.
- b. The quantity is to be checked and the beef treated in the UV Chamber for the desired period to carry out surface disinfection. From the point of surface disinfection, the meat handling staff should always wear gloves, mask, cap, boot and apron. The beef is then crated according to the requirement for individual animal enclosures.
- c. Each animal enclosure may hold varying number of animals. The quantity of the required beef is to be distributed accordingly. Liver should be quality checked and further quantity is to be ascertained.
- d. The cut beef is to be placed in the feed delivery vehicle for delivery at the various animal enclosures. The respective animal keeper should

take the distribution crates and should feed their animals according to the number of animals in holding.

8. Fish

The quality is to be assessed by the veterinarian. The quantity is to be checked and crated according to the requirement for individual animal enclosures. The quantity of the required fish is to be distributed accordingly.

9. Store in house disinfection and cleaning

- a. Feed delivery vehicle should be disinfected with 1% potassium permanganate solution before and after the feed delivery (feed/beef/chicken supply vehicle).
- b. Feed distribution vehicles (vehicles used within the zoo) should be disinfected with 1% potassium permanganate solution before and after the feed distribution
- c. Feed distribution crates should be disinfected with 1% potassium permanganate solution before and after the feed distribution.
- d. Store and the rooms to be mopped with lysol before and after the feed distribution process. In case of demand of disinfectant, 1% hypochlorite solution can be used instead of Lysol. 01% hypochlorite (320 gram of bleaching powder in 10 litres of water or 1 kg of bleaching powder in 30 litres of water)

c. Guidelines for Zoo Store Staff

1. Highest level of hygiene is to be maintained at store.
2. Foot dip with sanitizer is to be functional and there should be adequate hand wash and sanitizer and facemask for use
3. Only authorized persons are to enter the store premises. Even staff from other sections unless otherwise requested, should not be allowed to enter the store premises.
4. Maintenance of social distance with all the staff and food material suppliers should be strictly followed.
5. People accompanying animal food carrying vehicle should not get down from the vehicle and should maintain social distance from zoo staff.
6. All bio security measures must be strictly adhered to and practised, besides following the routine protocol which is already in place (washing beef, fruits and vegetables, fish).

d. Guidelines for Zoo Veterinary Hospital

1. Sufficient stock of all medicines required for treatment of animals should be made available.
2. Social distancing is to be maintained while attending animals.
3. Animals are to be monitored very closely for their health especially with regard to COVID 19 clinical signs using CCTV surveillance or first-hand information from the respective animal keeper.
4. Entry of other staff into Hospital premises and quarantine zone should be restricted.
5. Protective gears are mandatory while handling animals for treatment.

4. Guidelines for Outlets like Restaurants and Shops inside the zoo

1. They shall ensure adherence to the directions issued by the Government with respect to the type of business they are into.
2. All their staff are to maintain personal hygiene and be aware of COVID symptoms.
3. All employees should cooperate with the zoo staff in following the Zoo Protocol with respect to temperature scan, sanitization of vehicle etc.
4. All staff members should wear facemasks and maintain social distance and personal hygiene.
5. Hand wash and sanitizers are to be kept in their respective outlet (with due safety) for the use of visitors / customers. Automatic Sanitizer dispenser is recommended to ensure zero contact.
6. The premises are to be sanitized frequently so as to minimize the risk of virus spread.
7. Restriction of staff movement inside zoo premises has to be monitored.
8. Staff should be encouraged to carry their own drinking water and food, minimizing unnecessary movement.
9. Contact details of all the staff are to be made readily available for access in case of exigency.
10. All staff should enter and exit zoo premises only through the rest house gate.

5. Establishment of Squad Team

1. A Squad team will be established to conduct regular patrolling on daily basis so as to ensure that the approved guidelines and protocol are scrupulously adhered to and acted upon.
2. The team will consist of the following,
 - a. Assistant Director/ Assistant Conservator of Forests level officer
 - b. Two Forest Range Officers
 - c. Two Foresters
 - d. Two Forest Guards
3. The team's duty is to monitor the strict adherence of the SOP guidelines and to inform the respective official in charge to implement corrective measures in case of any violations.
4. The team will also apprise their findings to the Zoo Director / Deputy Director.

Estimation of Carrying Capacity

Arriving at the maximum number of visitors which zoo can safely (ensuring social distance) accommodate at a given time and in a day is of great importance and is a basic information required to formulate further strategies to ensure safety of zoo visitors, zoo staff and zoo animals.

Facts

- a. Visitor path length = 7km (including loop roads and circular road)
- b. Visitor path width = 4 m(on average)

Assumptions

- a. Majority of the visitors use 2 m walk path laid parallel to the circular road. Battery operated vehicles, feed distribution vehicle and the inspection vehicles will use the circular road. The circular road is about 7m wide and can easily accommodate the visitors and the vehicle to pass smoothly. (Taking visitor usage pathway as 4m)
- b. On average a visitor takes around 5 hours to cover zoo by walk (normal walking speed is around 6 km per hour)
- c. Safe distance between visitors required to ensure social distance is 6 feet (2m)
- d. There is uniform flow of visitors from morning to evening (which is more unlikely)

Calculation of Carrying Capacity

Number of visitors which zoo can accommodate safely at any given time of the day during the COVID pandemic ensuring social distance

$$\begin{aligned} &= (\text{Visitor path way length} \times \text{visitor use area width on either} \\ &\quad \text{side}) / \text{Social Distance } 2\text{m} \times 2\text{ m} \\ &= (7000 \times 4) / (2 \times 2) = 7000 \end{aligned}$$

K.SHANMUGAM
CHIEF SECRETARY TO GOVERNMENT.

/True copy/

Jeeyms
10/11/2020
SECTION OFFICER