

# PROTOCOL FOR TRANSPORTATION OF WILD ANIMALS



## *Partners:*

Central Zoo Authority

Wildlife Institute of India, Dehradun, Uttarakhand

Madras Veterinary College, Chennai, Tamilnadu

Arignar Anna Zoological Park, Vandalur, Chennai, Tamilnadu

# **Protocol for Transportation of Wild Animals (2011)**



## ***EDITORS***

**B.S. Bonal, IFS  
P.C. Tyagi, IFS  
Parag Nigam  
Naim Akhtar  
Brij Kishor Gupta  
Anupam Srivastav**

## ***CONTRIBUTORS***

**Dr. M.G. Jayathangaraj,**  
Professor and Head,  
Dept. of Wildlife Science, Madras Veterinary  
College, Chennai

**Dr.R.Thirumurugan**  
Zoo Veterinary Assistant Surgeon,  
Arignar Anna Zoological Park, Vandalur,  
Chennai, Tamilnadu

**Dr. K.Senthilkumar,**  
Assistant Professors,  
Dept. of Wildlife Science, MVC, Chennai

**Dr. M.Palanivelrajan,**  
Assistant Professors,  
Dept. of Wildlife Science, MVC, Chennai

**Dr. P.Thirunavukkarasu,**  
Assistant Professor,  
Dept. of Veterinary Clinical Medicine,  
Ethics and Jurisprudence, MVC, Chennai

**Dr. Vibhu Prakash**  
Bombay Natural History Society

**Shri Kartick Satyanarayan,**  
Wildlife SOS, New Delhi

### ***Participants***

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## PROTOCOL FOR TRANSPORTATION OF WILD ANIMALS

Exchange of animals between zoos and acquisition of animals from the wild necessitates their transportation between various locations. Such Wild animals go through high levels of stress quite often during such restraint, capture, confinement, loading, unloading and transportation process as well as while adapting to the new environment they are moved to. A need for developing protocols for transportation of animal has long been felt encompassing major issues related to movement of wild animals. The objective is to develop safe, humane, ethical and professional transportation protocols of wild animals.

To address this issue, the CZA organized a workshop for zoo veterinarians at Chennai, in collaboration with Madras Veterinary College and Arignar Anna Zoological Park from 24<sup>th</sup> – 28<sup>th</sup> January, 2011. Twenty seven zoo veterinarians attended this national level workshop. After detailed deliberations, protocols for the transport of the animals were developed under following heads which are associated with each other.

### GENERAL CONSIDERATION PRIOR TO TRANSPORT

#### 1 Selection of individuals

- i. Selection of animals is critical in any planned operation involving transportation. The selected animal should be in good health and also have a clean health record and preferable not have any medical history that is suspect.
- ii. Adults and sub-adults should only be transported. Pregnant, geriatric, lactating, suckling young ones, sick, weak, injured, deformed animals, stags (deer species) in velvet should be avoided in planned transport. As far as birds are concerned, the juveniles which have recently fledged, should be preferred for transporting. If the adults have to be transported, it should be done after the breeding season is over.
- iii. If essential, young ones unable to fend for themselves should be transported with the mother. Young ones being hand reared should be accompanied by the keeper/handler from the donor as well as at the recipient zoos.

#### 2 Marking of selected individuals

Prior to transport, the animal identified for transport should be appropriately marked. The veterinarians of the recipient and donor zoos should ensure that proper identification and marking is done for the selected animal. This should be uniform for

the species. The site and type of marking should be recorded and made available to the recipient zoo.

- i. Microchip and/or ear tags and / or tattoo markings with permanent dye may be used for identification for ungulates / primates / large mammal species.
- ii. Carnivores should be marked with Microchip (transponders). Ear tags may also be used as a convenience measure if available.
- iii. Birds should be marked with colour bands. The birds above the size of a myna or pigeon should also be microchipped. The microchipped should be injected in their breast muscles. This is essential because the rings can come out or break during transportation.
- iv. Reptiles (turtles and crocodiles) may be marked with notch marking whereas snakes may have microchips. Under belly scale notching can also be carried out for reptiles. Help of a person trained in microchipping of reptiles should be taken while doing this.



**Photo 1:** Individual marking using ear tags (Photo Credit: Dr. Mir Mansoor)

### **3 Weather and climate considerations**

- i. A complete record of the weather and climatic conditions should be maintained prior to initiating transport. Extreme climatic conditions viz. peak summer and monsoon should be avoided while transporting animals. Cool season is the most preferred weather for such transportation.

- ii. In case transportation is planned during summers, it should be carried out strictly during the cooler hours of the day preferably early mornings or late evenings unless the vehicle transporting the animals / birds / reptiles is air conditioned. Necessary provisions for effective cooling and ventilation should be in place when such journeys are undertaken. During winters it should be ensured that animals are not exposed to chills and are maintained in comfortable environment throughout the journey. During summer crate may be covered with wet Hessain sacs/gunny bags that can be moistened and similarly, winter-transport container/crate may be lined with Styrofoam.
- iii. Abrupt changes in weather conditions should be anticipated and provided for. Transportation logistics should be carefully planned with a backup and support vehicle always available on call if needed.

#### **4 Animal transport considerations**

Animal's health and well being should be of utmost priority during transport. These would vary depending on the species and should essentially be considered prior to movement. The mode of transport should be identified and a reconnaissance done well in advance and preparations accordingly made. The Driver / team undertaking the transportation should familiarise themselves with the route that will be taken while transporting the animals. Stops en-route should be pre-planned and identified well in advance to minimize the time of transport. The cage should be kept in the vehicle in such a way that animal always faces the direction in which the vehicle is moving.

#### **5 Recordkeeping considerations**

- i. Copies of the studbook and breeding records of the animals being transported should accompany the animals to know the pedigree and to avoid inbreeding.
- ii. Copies of the specimen report including all health, breeding details, animal temperament & medical history sheets & medical records should be sent to the recipient zoo along with the animal.

### **FINANCIAL CONSIDERATIONS**

The following need to be considered in terms of financial outlay when planning the acquisition of new animals:

- i. Financial consideration on providing additional manpower for care of the new animal/s.
- ii. Provision of adequate funds for transportation from donor zoo.
- iii. Provision for fund for upkeep and veterinary care of the animal

The Director of the recipient zoo shall ensure availability of funds for the above prior to the transport of the animals.

#### **FACILITY AT RECEPIENT ZOO**

- i. Once a decision to acquire new animals has been made, the recipient zoo should ensure the availability of adequate appropriate housing space as per CZA guidelines.
- ii. If an existing enclosure for the species is already present, it should not be overcrowded due to the addition of the new animals for which separate enclosure may be made available.
- iii. If no enclosure exists beforehand a new enclosure should be constructed well before the arrival of the animal.
- iv. If the animal being acquired is endangered or belong to Schedule I or II of the Wildlife (Protection) Act, 1972 the zoo shall get the designs for the enclosure approved by the CZA prior to construction.

#### **LIAISON WITH AGENCIES**

The Director of recipient zoo should arrange for all requisite permissions and liaise with the following agencies/ departments for transport of animals. The donor zoo should assist the recipient zoo by providing necessary documents as may be required:

- i. Donor / Recipient Zoo agreement
- ii. Chief Wildlife Wardens and State Forest Department of concerned states for permission to acquire and transport animals.
- iii. CZA (for permission)
- iv. Quarantine officer of the region for necessary permits.
- v. Information to zoos en-route for assistance in emergencies

- vi. Information to State Forest Department/s enroute to ensure that the animal is not stopped on the way.
- vii. Agencies for emergency-assistance (as per the requirement)
- viii. CITES (for permission: International exchange of animals)
- ix. DGFT ( International exchange of animals) - Import permissions
- x. MoEF, Govt of India: (International exchange of animals for permission) NOC documents without which DGFT will not issue permission to import.
- xi. Custom department (International exchange of animals)

### **ANIMAL CRATE/TRANSPORT CAGE CONSIDERATIONS**

Animals during transport have to be confined in crates/transport cages for easy handling and to minimize the chances of injury to the animals. The transport cages/ crates should be of dimensions that allow the animal to stand and to rest in sternal recumbency but do not provide space for turning. The basic considerations are as follows:

- i. The crate should be appropriately designed as per the species requirement and should be portable, light and as easy to manoeuvre.
- ii. Crate should be light weight and not heavy. Aluminium / light metal / wooden frame with plywood or laminated plywood bearing hinged handles so that the container can be loaded and unloaded with ease.
- iii. The crate should match with the size of the animal to be transported in such a way that the animal kept inside should only be able to stand or sit in sternal recumbency and not turn or somersault.
- iv. Shape of the crate should be rectangular.
- v. The crate should be well ventilated and it should be made sure that the extremities of the animals are not projecting out.
- vi. Do not use lead paints for painting the crate. As far as possible the crate should not be painted from inside but the surface should be smooth.
- vii. Crate should be disinfected properly prior to the transport. It should be made sure that the crates are free of fungus while transporting birds. This could be ensured by putting the cage out in the sun for a couple of days before use and the presence of mould in the cage can actually be smelt. Crate not used

for sometime develop fungus which is very harmful to birds specially birds of prey.

- viii. Temporary facilities for providing feed and water should be provided.
- ix. In case of transport by plane the container should be fabricated to the size and weight that confirms to the aircraft as different aircrafts have different sizes of cargo hold doorways
- x. Facility for cleaning the excreta should be provided.
- xi. Bedding with paddy straw, sand etc should be provided and the floor may be peg bored to avoid slipping. In case of birds the floor should have either sand and sticks or just astro-turf. There should not be any perch in the cage.
- xii. Sides: Padding with the help of paddy straw filled gunny bags, coir, foam/ cotton cushions should be provided in herbivore crates. Birds cages will not require any padding. Care should be taken to ensure nails, wooden splinters, protrusions, sharp edges, sharp objects are removed from the inner surfaces of the container.
- xiii. Hinged (foldable) Handholds or bars should be provided on the sides for easy handling but at the same time ensuring that the handles will fold away and be flush after loading to secure the cage and prevent it from shifting during transportation.
- xiv. In case of deer, Antler or horn tips may be taped with padding /cushioning to prevent injuries or breakage during transport.
- xv. Only well trained / experienced handler / attendant / keeper should be deputed for the task.



**Photo 2 & 3** Ungulate transport box; **Photo 4:** Giraffe transport container  
(Photo credit 2 & 3: Wildlife Trust of India, 4: Dr. Navin Kumar)





**Photo 5:** Tiger transport container (Photo credit: Dr. Parag Nigam)



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**Figure 6, 7 & 8:** Trapping cum transport cages for leopard  
(Photo credit 6, 7 & 8: Dr. Parag Nigam)



## Species-wise considerations

### A. Deer Species

- i. Maximum 4 -5 animals may be transported at a time.
- ii. 1 male only should be transported per crate
- iii. For smaller species two females may be transported in a crate whereas for larger species only one female should be transported in a crate. However it is preferable to transport only one animal per crate.
- iv. As per the need both the sexes can be transported in separate crates.

### B. Carnivores

- i. Preferably only one animal per crate / container. It is preferable to have animals from the same enclosure/ those who have lived together.
- ii. Males need to be transported separately in individual crates.

### C. Primates

- i. Maximum 1 -4 animals may be transported at a time.
- ii. For larger primates one animal may be transported per crate.

### D. Birds

- i. Storks, cranes, ratites and raptors should be transported individually.
- ii. Parakeet may be transported in pairs in individual boxes.
- iii. Ducks, teals, geese, pigeons bulbuls, Galliformes (females), Corvids, sparrows and other finches could be transported in flocks.



**Photo 9 & 10:** Boxes for transportation of small mammals and birds (Photo credits : Wildlife Trust of India)

### E. Reptiles

- i. Crocodiles should be transported singly always.
- ii. Turtles & Tortoise: Large size single, small size may be in groups.
- iii. Snakes: King Cobra, cobra, python and other cannibal snakes always individually in separate crates / boxes with locks and signage marked DANGER / HANDLE WITH CARE – VENOMOUS SNAKE.
- iv. In relation to the transport of reptiles like crocodiles, chelonians, serpentines and lizards, check up for evidences of any injury, metabolic bone disease, ecto parasites, stomatitis, scale-rot, dysecdysis, bloat, retained eye caps, swollen eyes, abnormal discharges from eyes, nostril, mouth etc need to be monitored in the reptiles regardless of the species before transport/release. The teeth should be clean and white, not brittle or translucent in case of crocodiles. Similarly, any accumulation of algae on teeth may often reflect lack of feeding in crocodiles. Fasting prior to even physical capture appears to be better in case of reptiles. Transport boxes or container should be adequate in width and depth, so that climbing of chelonians leading to shell-damage may be avoided, to a greater extent. Snake bags need to be tied firmly to prevent escape. In case of boxes, they should be locked. Reptiles are very susceptible to dehydration during transportation and require watering during transportation.



**Photo 11: Transport container for crocodiles** (Photo credit: Dr Navin Kumar)

**For dimensions of the crates for different species, “Manual of Transport Cages and Nest Boxes” published by CZA may be referred.**

**A. Deer Species:** Indicative dimension of the crate are provided below:

Name of the species	Length (cm)	Width (cm)	Height (cm)	Remark
Sambar ( <i>Rusa unicolor</i> )	180	68	150	For ventilation, holes on side of 12 mm.  <i>Crates for other species of deer may be designed accordingly keeping the size of animal in view.</i>
Swamp deer ( <i>Cervus duvaucelli</i> )	165	60	150	
Spotted deer ( <i>Cervus axis</i> )	150	55	120	
Barking deer ( <i>Muntiacus muntjac</i> )	90	45	75	

- i. Frame: All around solid wooden batten of 4 mm or metallic.
- ii. Sides- Plywood water proof 12 mm thick.
- iii. Floor- 19 mm thick water proof ply.
- iv. Roof- Water proof plywood 12 mm thick.
- v. Doors- Water proof ply 12 mm thick, sliding doors on both sides with bolts and chain.

**B. Carnivores:** Indicative dimension of the crate are provided below:

Name of the species	Length (cm)	Width (cm)	Height (cm)
Tiger/lion	195	75	105
Bear	180	75	100
Leopard/jaguar	120	60	90

- i. Frame: MS angle 40 x 40 x 6 mm.
- ii. Sides- Plywood water proof 12 mm thick with cover of iron sheet of thickness of 3 mm.
- iii. Floor- 19 mm thick water proof ply on MS flat of 35 x 4 mm @ 350 c/c floor and two sides also covered from inside with iron sheet of 2 mm. Holes on floor 20 mm in diameter. Whole crate should rest on 50 x 50 mm iron long pegs. Tow 25 mm deep removable trays to be kept below the floor to receive urine and excreta.
- iv. Roof- Water proof plywood 12 mm thick.

- v. Doors- 12 mm diameter MS bar @ 50 mm c/c should be welded with frame and covered with 5 mm thick plywood. Bolt and chain system for closing and opening the doors.

**C. Primates:** Indicative dimension of the crate are provided below:

Name of the species	Length (cm)	Width (cm)	Height (cm)
All macaques	90	68	75

- i. Frame: Solid wooden batten 35 x 35 mm all around.
- ii. Sides- Waterproof plywood 12 mm thick.
- iii. Floor- Waterproof plywood 12 mm thick with saw dust on base.
- iv. Roof- Water proof plywood 12 mm thick.
- v. Doors- Only on one side with up slide facility made up of waterproof ply of 9 mm thickness.
- vi. Ventilation: Holes of 20 mm diameter on two sides welded mesh at rear top of the width of 100 mm.

**D. Birds:** Indicative dimension of the crate are provided below:

Name of the species	Length (cm)	Width (cm)	Height (cm)	Remark
Munia/ Budgerigar	75	75	22.5	Sufficient for 2—25 munias, wire mesh size of 150 x 600 mm
Kite/Shikra	60	45	45	For one bird, perch at 50 mm, should have enough space to turn around. Wire mesh size 150 x 30 mm
Pheasants	60	45	60	For one bird, if the tail is long, the length may be increased accordingly, wire mesh size 100 x 600
Emu and Cassowary	75	60	150	
Small parakeets	75	75	25	Sufficient for 10 parrots, perch is not required in transport boxes.

- i. Bird size measurements shall be taken when lying down/ wings closed and legs stretched. Height of the crate should always be atleast 4-6 inches more than the bird's height at the head.
- ii. Frame: Solid wooden batten 30 x 30 mm all around, in case of Emu 75 x 50 mm.

- iii. Slides- Waterproof plywood 9 mm thick, in case of Emu 12 mm with Iron bars of 25 cm in length be fixed at equal distance.
- iv. Floor- Waterproof plywood 12 mm thick, in case of Emu 19 mm in thickness with saw dust. In case of big birds, the flooring should be of astro turf or of any non-slip material.
- v. Roof- Water proof plywood 9 mm thick, in case of Emu 19 mm.
- vi. Doors- Sliding on one side, Back side closed, Door made up of 9 mm thick plywood. In case of Emu 19 mm. IN case of transporting raptors or birds of the sliding door should not be installed sideways but instead be top to down. This will help in catching the bird with its legs. In the vulture transport box the lid should be on the roof as it should be top open.
- vii. Ventilation: Wire mesh at rear end at top of the, in case of Emu holes on both sides. In case of raptors, there should be holes at regular interval (of the size of drilling machine blades) on all the four sides. Holes should be small enough to ensure that even a human finger does not go through as this could be very dangerous especially in case of vulture transport crate.
- viii. For dimensions of the crates for different species, "Manual of Transport Cages and Nest Boxes" published by CZA may be referred.

**E. Reptiles:** Indicative dimension of the crate are provided below:

Name of the species	Length (cm)	Width (cm)	Height (cm)	Remark
Crocodile/Alligator/Gharial	195 cm	60	40	Small size are preferred
Python	75	90	45	Handles on both sides to carry
Cobra or other snakes	60	75	30	Handles on both sides to carry

- i. Frame: Solid wooden batten 35 x 35 mm all around, in case of python MS angle of 25 x 25 x 4 mm and with additional support of MS flat of 25 x 4 mm as required. For other snakes, solid wooden batten of 25 x 25 mm size.
- ii. Sides- Waterproof plywood 12 mm thick with 35 x 35 mm solid wooden batten as support (4 No.). In case of python, 19 mm plywood and wire mesh on two sides. For other snakes, waterproof ply of 9 mm with wire mesh on two sides.
- iii. Floor- For crocodile and other snakes waterproof plywood 12 mm thick with saw dust on base. In case of python, 19 mm plywood with dry paddy at base.

- iv. Roof- For crocodile and other snakes water proof plywood 12 mm thick. In case of python waterproof ply of 19 mm in thickness with hinges and locking arrangement. The top will act as a door.
- v. Doors- Sliding on both sides with 12 mm thick waterproof.
- vi. Ventilation: Small holes on sides and top as required. But to ensure that the holes are smaller than the size of the snake's tail / head as well as people's fingers.

## VETERINARY CONSIDERATIONS

### DONOR-ZOO

#### i. Health screening of the animal

- The identified animal(s) should be subjected to health screening so as to ensure transportation fitness and avoid transmission of disease to recipient zoo. IUCN guidelines on quarantine and health screening prior to translocation of wild animals should form basis for such interventions. Where required, animals may be vaccinated and dewormed well in advance to transportation at least 3 weeks earlier.
- Body weight and morphometric features should be estimated by the biologist in addition to the making of crate design.
- Animals of different species should never be transported in the same container.
- A health certificate in standard format with all health related details should be issued by the veterinarian of the donor zoo to the recipient zoo.

#### ii. Define nature of capture

- The mode of capture may be decided based on the species to be captured. It is essential that the veterinarians decide on the mode of capture well in advance for the individual to be captured and accordingly procure/store requisite instruments and drugs.
- If chemical immobilization has to be carried out, the animal should be fasted for 24 hours and deprived of water for 12-16 hours. This may include covering with wet cloths in case of high temperature, covering the eye precautions for use of acepromazine and etropin and human antidotes.
- If chemical immobilization and restraint procedures are to be used, adequate stocks of immobilizing drugs, reversals and antidotes should be procured and

appropriately stored. The drug dosage may be decided based on the size of the animal and other considerations such as age, sex, weight, weather, physiological and temperamental needs, excitement level etc. Tranquilizers may be used before transportation as they would minimize anxiety in the animal thereby reducing any chance of stress. A wide range of tranquilizers are available. The choice of drug depends on the species and the excitation level. For herbivores it is advisable to use short and long acting tranquilizers depending on the travel time and the species prior to crating as this would ensure minimal stress to the animal during crating, transport and release at new location.

- If physical methods of capture are to be used, it should be ensured that the animals are subjected to minimal stress and there are skilled and experienced personnel in the team.
- The animal especially herbivores can be habituated to its crate well in advance by feeding the animal every day in the crate which is placed in the enclosure. This will slowly make the animal comfortable with the crate thereby reducing stress at the time of transportation as it would already be familiar with the crate.
- The staff involved in the capture and transportation procedure should be made aware of the various procedures that need to be carried out. It would be very helpful if a mock exercise is practiced so that staff are prepared for eventualities.
- Best available drugs should be used for transportation of different deer species amongst them.

The drugs Available in India are : Xylazine, Ketamine and Acepromazine

Others: Butophanol, Azaperone, Detomidine, Medetomidine, Telazol, Midazolam, Haloperidol, etorphine and reversal agents Atipamazole, Yohimbine, Tolazoline, Flumazenil and Naltrexone.

- Indicative dose regime for chemical immobilization of the animals may be as given below subject to the advice of the veterinary officer on case to basis:

#### Deer

Name of the species	Drug	Dose regime	Mode
Spotted deer ( <i>Cervus axis</i> )	Xylazine and Ketamine	6 mg/kg and 1.2 mg/kg	IM
	Medetomidine and	0.05-1.0 mg/kg and	IM

	Ketamine	0.8-3.2 mg/kg	
Hog deer ( <i>Cervus porcinus</i> )	Xylazine and Ketamine	6 mg/kg and 1.2 mg/kg	IM
	Meditomidine and Ketamine	0.05-1.0 mg/kg and 0.8-3.2 mg/kg	IM
Swamp deer ( <i>Cervus duvaucelli</i> )	Etorpine and Xylazine	0.003 mg/kg and 5-8 mg/animal	IM
Blackbuck ( <i>Antelope cervicapra</i> )	Ketamine and medetomidine	2 mg/kg and 0.25 mg/kg	IM
	Xylazine	20 mg/ animal	IM
Nilgai ( <i>Boselaphus tragocamelus</i> )	Etorpine, acepromazine and Xylazine	0.03 mg/kg, 0.12 mg/kg and 0.16 – 0.23 mg/kg	IM
Barking deer ( <i>Muntiacus muntjac</i> )	Xylazine and Ketamine	3 mg/kg and 2 mg/kg	IM

### Carnivores

Name of the species	Drug	Dose regime	Mode
Wolf	Xylazine and Ketamine	10 mg/kg and 2 mg/kg	IM
Himalayan Black bear	Tiletamine/zolazepam and medetomidine	0.5 mg/ kg and 0.01 mg/kg	IM
Sloth bear	Ketamine and Xylazine	7.5 mg/kg and 2 mg/kg	IM
	Ketamine and Medetomidine	3 mg/kg and 0.05 mg/kg	IM
Red Panda	Ketamine and Medetomidine	5 mg/kg and 0.1 mg/kg	IM
Civet and Binturong	Ketamine and Xylazine	10 mg/kg and 1-2 mg/kg	IM
Lion	Ketamine and Xylazine	4.5 mg/kg and 1 mg/kg	IM
Tiger	Ketamine and Xylazine	5 mg/kg and 1 mg/kg	IM



Snow leopard	Ketamine and Medetomidine	2.5-3.0 mg/kg and 0.06- 0.08 mg/kg	IM
Leopard	Ketamine and Medetomidine	3 mg/kg and 0.07 mg/kg	IM
Small felids (cats)	Ketamine	5-10 mg/kg	IM
	Ketamine and Xylazine	3-5 mg/kg and 0.06-0.08 mg/kg	IM

### Primates

Name of the species	Drug	Dose regime	Mode
Macaques, langur and leaf monkeys	Ketamine and medetomidine	5-10 mg/kg and 0.05 mg/kg	IM
	Note : Xylazine and ketamine combination also may be used.		

\*Kindly refer to report on "Standards, guidelines and protocol" prepared by the IVRI for CZA

### CONSIDERATIONS DURING TRANSPORT

- Veterinarian of the recipient zoo should accompany the animals during the transportation. In special cases, Veterinarians of both the donor and recipient zoo may accompany the animals during transportation.
- While in transportation, disturbance to the animal should be minimized.
- Human contact with animals should be minimal to avoid cross-infection.
- Animal should be monitored throughout the transport and if need be appropriate treatment / management should be done.
- Emergency veterinary drugs and equipment should be carried during transportation to meet any eventuality. Quick and prompt veterinary consultation and treatment should be extended for animals that get injured or diseased in transit.
- An official with requisite financial powers to cover any exigencies enroute should accompany the animal. The official may be provided assistance of animal supervisor and keepers/ handlers as required

- vii. Sufficient quantity of food and water should be kept in the vehicle during transportation.
- viii. There should always be two drivers for the vehicle so that excessive stops don't have to be carried out to allow the driver to rest as one driver can rest while the other drives.
- ix. Staff undertaking transportation of animals should not consume alcohol as this will blur and affect their judgement in case of emergencies.
- x. In case of vehicles going through Maoist / insurgency affected areas, the concerned RTO offices / border check posts should be consulted for the best time to pass through these areas and a police escort requested from the SP / DM of the area to prevent any risk to the vehicles, people and the animals.



**Photo 12 & 13:** Rhino transport crate (Photo credit Dr Parag Nigam & Wildlife Trust of India)

### CONSIDERATIONS AT RECIPIENT ZOO

- i. Before getting approval from the Central Zoo Authority, the recipient zoo veterinarian may visit the donor zoo and mutually agree on the animals to be exchanged.
- ii. Close monitoring of the animal for behaviour, feeding pattern and health should be carried out.
- iii. Animals should be housed in stress free environment.

### HUMAN RESOURCE CONSIDERATIONS AT RECIPIENT ZOO

- i. Recipient Zoo should arrange at least one full time keeper for the animal to be received well in advance. If the recipient zoo has no prior experience in

managing the animal, the designated keepers should be sent well in advance to the donor zoo to familiarize themselves with the husbandry, care, feeding, treatment and daily routines to be followed in the care of the concerned animal.

- iv. The recipient zoo should arrange training for the keeper engaged for the newly arrived animal at the donor zoo three months in advance. Quarantine and health check up should be carried out as per veterinary protocols and relevant guidelines.
- v. One Forest Range Officer (in case of Forest Department zoos), one supervisor, two to three animal attendants/ animal keepers should accompany. But in case of species which can be easily handled and commonly transported; Director of recipient zoo may decide the no. of people to be sent for receiving animals without compromising the safety & care of animals.

## TRANSPORT VEHICLE CONSIDERATIONS

- i. Reputed and experienced companies / firms / NGO's that are experienced in transporting animals should be selected and engaged. Compromise should not be made in this regard.
- ii. An agreement should be signed between the carrier company and consigner so that an alternate vehicle will be arranged as early as possible by the carrier company, in case of breakdown or other emergencies that may arise en route.
- iii. A detailed discussion should be held between the donor, recipient, transport company and the identified escort team and responsibilities and tasks provided.
- iv. Ensure that the vehicle is fit for the journey. The vehicle should be serviced and thorough check up should be carried prior to the transport. Additionally information on the fuel level, tyre pressure, tool kit and essential spares should be obtained. Animal transport vehicle should have two drives during the long journey.
- v. Mobile contact details of the drivers, owners, cleaner of the vehicle etc. should be given to both donor and recipient zoo coordinators.
- vi. Transport vehicle should be insured. All vehicle related documents should be valid (R.C., insurance, driver's licence...etc) and should be checked.
- vii. Vehicle should be disinfected properly prior to the transport.
- viii. Identification of the animals should be done prior to loading.

- ix. Shortest road worthy route should be selected.
- x. Before transportation, factors like weather forecast, possible disturbances (blockade, processions, festivals, public functions etc.) during the proposed time should be taken into mind and planned accordingly.
- xi. Information on zoos and other facilities en route should be accompanied with the vehicle so that necessary assistance (food, healthcare etc) can be obtained as and when needed.
- xii. Contact information of Directors/Veterinarians of zoos en route should be available with the transporting team. Prior intimation of the travel plan should be communicated to them to facilitate assistance as required.
- xiii. Pilot vehicle should have a team of competent authority, veterinarian, drugs, equipment for physical and immobilization and communication facilities.
- xiv. Uniform personnel with proper dress code as well as necessary paperwork / certificates should accompany the vehicle.
- xv. The team in the pilot vehicle should inform the toll / check gates in advance so that unnecessary delay is avoided.
- xvi. Emergency lights, torches with enough batteries, drinking water, IV fluids, medical kit etc should be kept in the vehicle and pilot vehicle.
- xvii. For safe and secured transportation, forest department personnel of the concerned district or state and security agencies like police may be contacted for necessary help.
- xviii. Guidelines of IATA, CITES etc. should be followed in specific cases.

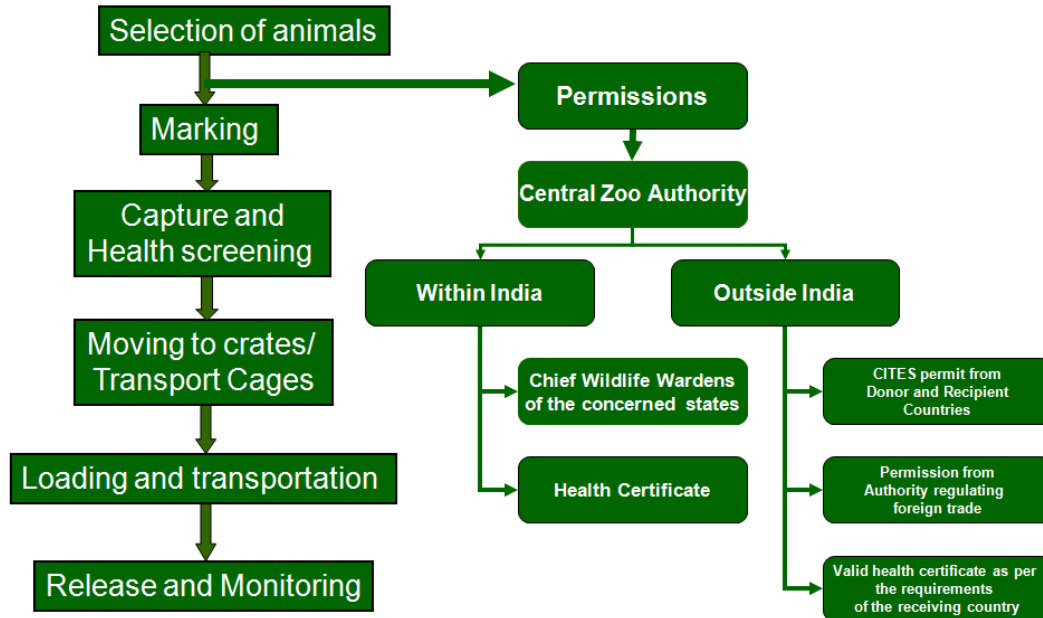


**Photo 14:** Transportation of carnivore (Photo credit: WTI)



**Photo 15:** Specially designed Vehicle for Transportation of Gaur at Kanha Tiger Reserve (Photo credit: Dr Parag Nigam)

## SUMMARY OF PROTOCOLS FOR TRANSPORT OF WILD ANIMALS



**Annexure 1**

**Requisite permissions for international transport of animals**

India is a signatory to the Convention on International Trade in Endangered Species (CITES) and any international transport of wild animals is governed by the convention. The Director Wildlife Preservation, Govt. of India is the nodal officer for CITES permits and the whole country is divided into four regions - Northern Region consists of the States of Uttar Pradesh, Punjab, Haryana, Himachal Pradesh, Jammu Kashmir, Rajasthan and Union Territory of Delhi and Chandigarh. Eastern Region consists of States of Bengal, Bihar, Assam, Arunachal Pradesh, Sikkim, Mizoram, Nagaland, Orissa, Tripura, Meghalaya and Manipur. Southern Region consists of States of Tamil Nadu, Andhra Pradesh, Kerala, Karnataka, Union Territory of Andaman & Nicobar Islands, Lakshadweep and Pondicherry. Western Region consists of the States of Gujarat, Madhya Pradesh, Chattisgarh, Goa and Union Territory of Daman & Diu and Dadra & Nagar Haveli.

The Regional Deputy Director (Wildlife Preservation) can be contacted for obtaining the mandatory CITES permits for international transport of wild animals. Once a CITES permit has been obtained the permission for Director General of Foreign trade may be obtained to allow for international transport of wild animals.

**CITES Management Authorities**

**Director (Wildlife Preservation)**

**Management Authority CITES - India**

Ministry of Environment & Forests, Government of India  
 Paryavaran Bhawan, 4th Floor, CGO Complex, Lodi Road  
 New Delhi - 110 003  
 Tel.No.: +91-11-24362285  
 Fax No.: +91-11-24363918  
 Telex: w66185 doe in  
 Cable: PARYAVARAN NEW DELHI  
 Email: [moef@gov.nic.in](mailto:moef@gov.nic.in)

<p><b>Regional Deputy Director (WCCB) &amp; CITES Asst. Management Authority Western Region</b>  Ministry of Environment &amp; Forests  Wildlife Regional Office  11, Air Cargo Complex  Sahar, Mumbai - 400099 (India)  Telefax: +91-22-26828184  Email: <a href="mailto:rddwr@vsnl.com">rddwr@vsnl.com</a></p>	<p><b>Regional Deputy Director (WLP) Eastern Region</b>  Ministry of Environment &amp; Forests  Wildlife Regional Office  Nizam Palace, 2nd MSO Bldg.  234/4, AJC Bose Road,  Kolkata - 700020 (India)  Telefax: +91-33-2247869</p>
<p><b>Regional Deputy Director (WCCB) Southern Region</b>  Ministry of Environment &amp; Forests  Wildlife Regional Office,  C-2A, Rajaji Bhawan, Besant Nagar  CGO Complex, Chennai 600090  Tel.No.: +91-44-24916747  Email: <a href="mailto:rddwl@md4.vsnl.net.in">rddwl@md4.vsnl.net.in</a></p>	<p><b>Regional Deputy Director (WCCB) Northern Region</b>  Ministry of Environment &amp; Forests  Wildlife Regional Office  Barracks No.5, Bikaner Office,  Shahjahan Road, New Delhi - 110011  Tel.No.: +91-11-23384556  Fax: +91-11-23386012  Email: <a href="mailto:rddnr@vsnl.net.in">rddnr@vsnl.net.in</a></p>



(TO BE PUBLISHED IN THE GAZETTE OF INDIA EXTRAORDINARY PART II SECTION 3, SUB-SECTION (ii))

**GOVERNMENT OF INDIA, MINISTRY OF COMMERCE**  
**NOTIFICATION NO. 27 (RE-98)/97-02 NEW DELHI, DATED THE 29 OCTOBER, 1998**

S.O. - In exercise of the powers conferred by section 5 of the Foreign Trade (Development and Regulation) Act, 1992 (No. 22 of 1992) read with paragraph 4.1 of Export and Import Policy 1997-2002 the Central Government hereby makes the following amendments in Export and Import Policy, 1997-2002 and ITC(HS) Classification of Export and Import items 1997-2002 published on 31st March, 1997 and as amended from time to time.

In Export and Import Policy, Sl. No.1 of Section D, Seeds, Plants and Animals of Part II of Chapter 15 of Negative List of Imports shall be amended to read as under:-

Sl. No.	Description of items	Nature of restriction
1.	Animals Birds and Reptiles (including their parts and products).	Import permitted against a licence to Zoos and Zoological parks, circus companies, private individuals, on the recommendation of the Chief Wild Life Warden of a State Government subject to the provisions of the Convention on international Trade in Endangered Species of Wild Fauna and Flora (CITES), For recognized scientific research institutions, in addition to the above requirement, recommendation of Committee for the Purpose of Control and Supervision of Experiments on animals (CPCSEA) under the Prevention of Cruelty to Animals Act, 1960 shall also be required for issuance of Import Licence.

In ITC(HS) Classification of Export and Import in respect of following Exim Code Nos. conditions relating to the policy indicated in column 4 shall be amended to read as under:-

EXIM CODE	Item Description	Policy	Conditions relating to the policy	Import under SIL/ Public Notice
010119 00.90	Other	Restricted	Import permitted against a licence to Zoos and Zoological parks, circus companies, private individuals, on the recommendation of the Chief Wild Life Warden of a State Government subject to the provisions of the Convention on international Trade in endangered Species of Wild Fauna and Flora (CITES). For recognised scientific /research Institutions, in addition to the above requirement, recommendation of Committee for the Purpose of Control and Supervision of Experiments on animals	

## PROTOCOL FOR TRANSPORTATION OF WILD ANIMALS

EXIM CODE	Item Description	Policy	Conditions relating to the policy	Import under SIL/ Public Notice
			(CPCSEA) under the Prevention of Cruelty to Animals Act, 1960 shall also be required for issuance of Import Licence.	
010120 00.90	Other asses, mules and hinnies	Restricted	Import permitted against a licence to Zoos and Zoological parks, circus companies, private individuals, on the recommendation of the Chief Wild Life Warden of a State Government subject to the provisions of the Convention on international Trade in endangered Species of Wild Fauna and Flora (CITES). For recognised scientific / research Institutions, in addition to the above requirement, recommendation of Committee for the Purpose of Control and Supervision of Experiments on animals (CPCSEA) under the Prevention of Cruelty to Animals Act, 1960 shall also be required for issuance of Import Licence.	
010600 01.90	Other	Restricted	Import permitted against a licence to Zoos and Zoological parks, circus companies, private individuals, on the recommendation of the Chief Wild Life Warden of a State Government subject to the provisions of the Convention on international Trade in endangered Species of Wild Fauna and Flora (CITES). For recognised scientific /research Institutions, in addition to the above requirement, recommendation of Committee for the Purpose of Control and Supervision of Experiments on animals (CPCSEA) under the Prevention of Cruelty to Animals Act, 1960 shall also be required for issuance of Import Licence.	
010600 02.90	Other	Restricted	Import permitted against a licence to Zoos and Zoological parks, circus companies, private individuals, on the recommendation of the Chief Wild Life Warden of a State Government subject to the provisions of the Convention on international Trade in endangered Species of Wild Fauna and Flora (CITES). For recognised scientific /research Institutions, in addition to the above requirement, recommendation of Committee for the Purpose of Control and Supervision of Experiments on animals (CPCSEA) under the Prevention of Cruelty to Animals Act, 1960 shall also be required for issuance of Import Licence.	

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**PROTOCOL FOR TRANSPORTATION OF WILD ANIMALS**

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<b>EXIM CODE</b>	<b>Item Description</b>	<b>Policy</b>	<b>Conditions relating to the policy</b>	<b>Import under SIL/ Public Notice</b>
010600 03.90	Other	Restricted	Import permitted against a licence to Zoos and Zoological parks, circus companies, private individuals, on the recommendation of the Chief Wild Life Warden of a State Government subject to the provisions of the Convention on international Trade in endangered Species of Wild Fauna and Flora (CITES). For recognised scientific /research Institutions, in addition to the above requirement, recommendation of Committee for the Purpose of Control and Supervision of Experiments on animals (CPCSEA) under the Prevention of Cruelty to Animals Act, 1960 shall also be required for issuance of Import Licence.	
010600 09.90	Other	Restricted	Import permitted against a licence to Zoos and Zoological parks, circus companies, private individuals, on the recommendation of the Chief Wild Life Warden of a State Government subject to the provisions of the Convention on international Trade in endangered Species of Wild Fauna and Flora (CITES). For recognised scientific /research Institutions, in addition to the above requirement, recommendation of Committee for the Purpose of Control and Supervision of Experiments on animals (CPCSEA) under the Prevention of Cruelty to Animals Act, 1960 shall also be required for issuance of Import Licence.	

This issues in public interest.

**(N.L.LAKHANPAL)**  
**DIRECTOR GENERAL OF FOREIGN TRADE AND**  
**EX-OFFICIO ADDITIONAL SECRETARY OF THE GOVT. OF INDIA**

