



# CENTRAL ZOO AUTHORITY

## APPLICATION FOR SMALL GRANT FELLOWSHIP

Please read appendix I for instructions (last page of this document)  
Form must be filled in English

Internal Project Number (To be filled in by CZA): .....

### 1. GENERAL INFORMATION

Date of application: ..... **28th June, 2006** .....

Name of the Zoo / organization: ..... **National Zoological Park, N Delhi - 110063** .....

Contact person / project leader: ..... **Dr.A.K. Malhotra** .....

### 2. CLASSIFICATION OF PROPOSAL

Improvement of the Zoo	Scientific Management	Ex-situ Conservation	Welfare of the animals	Any other, please specify
	✓			

### 3. DATE OF INITIATION OF THE PROJECT

**2 months from the receipt of grant.**

### 4. DURATION OF THE PROJECT:

**1 Year**

### 5. LOCATION OF THE PROJECT.

Region/State : ..... **National Zoological Park, New Delhi.** .....

Closest main city

6. STAFF INVOLVED IN PROJECT (please include Curriculum Vitae of the individuals):

1. Name (+ title) + Zoo Organization, **Dr. A.K. Malhotra, Curator (Edn)**.....

Period to be spent on the project from: **Sept., 06. to Aug., 07.** (day/month/year/) for **15**....  
hours/week

Role / Function in the project: **Principal investigator**

2. Name (+title) + Zoo Organization:

Period to be spent on the project from: ..... to: ..... (day/month/year/) for .....  
hours/week

Role / Function in the project: .....

3. Name (+title) + Zoo Organization: .....

Period to be spent on the project from: ..... to: ..... (day/month/year/) for .....  
hours/week

Role / Function in the project: .....

**Preparation of manual of the transportation cages and nest boxes of different animal species.**

7. PROJECT PROPOSAL

7a. Background and history of the project (max. 300 words) Now a days the animals are transported from one place to another in cages of all description. There is need to provide adequate space, facility for air, water and feed. The zoos are using different ways and means for nesting and breeding of birds. There is need to form a standard design for different species for the comfort and breeding of the birds.

7b. Main problem or question (max 200 words) The animals / birds are shifted from one place to another in different kind of cages. The nest boxes used are also of different shapes and sizes.

7c. Aims and objectives of the project (max 200 words) To formulate standards for the transportation cages and nest boxes of different species.

7d Methodology and/or proposed activities (max 300) This involves getting information from different zoos through questionnaire or visits, by going through the literature and through interaction with experienced zoo personnels.

8. COLLABORATION (IF ANY): Please specify with which institutions/organisations will collaboration take place and type of the collaboration & support should also be indicated.

	NAME	LOCATION
NGO's		
Ministries	National Zoological Park,	New Delhi.
Universities	.....	
Research institutes / or any other	.....	

Type of the collaboration and support..... National Zoological Park will provide space infrastructure, computer & facility for stationary & typing facilities.

8a. Support from host zoo: (Please specify what support the host zoo will be providing, it could be in the form of laboratory, equipment, space or personnel).

9. BASIC TIME SCHEDULE

	ONE YEAR	
1st Month	<u>6</u>	Recruitment of T.A.
2nd Month to 7th	---	Collection of data & Survey
8th Month to 10th Month	---	Design preparation & Sketches
11th Month & 12th Month	---	Report Preparation & Submission.

10. OUTPUT

10a. Describe which output can be expected from this project (reports, (scientific) publications, management plans, educational tools, etc. etc.) and how they will be disseminated.

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10b. Describe the (practical) relevance of this project for ex-situ conservation and scientific management of animals in general

These will act as a fool for proper transportation and good breeding.

10c. Describe how results/output will be evaluated (timelines and benchmarks)  
The result would help National Zoological Park in better management of its animals ~~sex~~ not only during exchange programme but in transportation of animals inside the National Zoological Park for its health care.

11. FEASIBILITY (How well is the execution of the project guaranteed? Possible risks such as logistics, permits, other finances and how are these risks dealt with).  
These does not seem to be much of problematic areas in the execution of the project.

12. FINANCIAL ASPECTS (please include budget overview (in Rs.) in an appendix)

Please see the list attached

- 12a. Other financial sources applied for and/or guaranteed
  - In case of Forest Dept./Corporation/Trust: please also mention the details
  - Indicat : if source is applied for or already guaranteed

NIL

2. Name Department / Institute: Self  
Address: .....

Amount applied for or guaranteed:  
Rs. \_\_\_\_\_

3. Name Department / Institute: ..... X

Address: ..... X

..... X

Amount applied for or guaranteed:  
Rs. \_\_\_\_\_

13. DECLARATION

The information submitted in this application is true, to the best of my knowledge. Should any significant developments arise after this application is made, I shall notify the Member Secretary, Central Zoo Authority.

SIGNATURE

*D N Singh*

Director/Curator/  
Officer-in-charge of the Zoo  
(Supervisor of the Research)

*Dr A.K. Malik*  
Research Project Leader  
*Caretaker (E)*

Chief Wildlife Warden  
Municipal Commissioner/  
Owner/Zoo Operator



Signature:  
Date:  
Seal

*28/6/06*

D. N. SINGH  
Director  
National Zoological Park  
New Delhi - 110005

*A.K. Malik*

Signature:

Date: *28/6/06*

Signature:

Date:

Include with the proposal:

- A curriculum vitae of the applicant and individuals involved in the project
- Background information about the zoo involved (max. 1 page)
- Budget overview

Brief Background Information:

## APPENDIX I

## EXPLANATION TO THE INDIVIDUAL QUESTIONS OF THE FORM 'SMALL GRANT FELLOWSHIP PROPOSAL'

Question 1: Name of the project leader and address.

Question 2: Please indicate the duration of the entire proposed project.

Question 3: Please write down the /region, state, department in which the project will be or is carried out.

Question 4: Please write down the names of the persons involved in the project. If necessary continue on extra sheet. Background information on the involved organizations can be added in an appendix.

Question 5 Give a brief background, main question and aims and objectives of the project. Please confine yourself to the maximum number of words.

Question 6: Please, mention the collaborating organizations, if any, participating in this project and state the role and responsibilities of the collaborator.

Question 7: Provide a basic time schedule for the activities of the project.

Question 8: Please give significant outputs which can be expected from this project. Describe the (practical) relevance of this project in ex-situ conservation and scientific management of animals in zoos. Also indicate how the project will be evaluated so it can be decided if the objectives have been met.

Question 9: Please specify how well the execution of the project is guaranteed? Possible risks such as logistics, permits, other finances and how are these risks dealt with.

Question 10: Please give a detailed budget and a breakup of the financial assistance sought from Central Zoo Authority (include an budget overview in an appendix), the financial sources that are already guaranteed, and other institutions/programmes that have been requested for co-financing the proposed project. Send written proof of contributions already guaranteed.

Question 11: This form must be signed by the Head of the institution and the project leader of the project and forwarded through the Chief Wildlife Warden/Municipal Commissioner/Head of the organization.

You may send your completed project proposal by email to [cza@ndf.vsnl.net.in](mailto:cza@ndf.vsnl.net.in) with a copy to [brijkishor.8@yahoo.com](mailto:brijkishor.8@yahoo.com). A hard copy of the original with signatures & seals and any relevant paper copies (i.e. written proof other financial sources) should be sent by registered mail to:



Member Secretary  
Central Zoo Authority  
(Ministry of Environment & Forests)  
Annexe VI, Bikaner House  
Shahjahan Road  
New Delhi 110 011

Col. No.12FINANCIAL ASPECTSStaff

				Total Amount
1.	Technical Asstt. (B.Sc with Biology) On Contract basis	1	@Rs.6000/-p.m.	Rs.72000/-
2.	Preparation of Sketches (On Contract)	---	@Rs.10000/-	Rs.10000/-
3.	Photography	---	@Rs. 5000/-	Rs. 5000/-
4.	Misc. & Transportation		@Rs.40000/-	Rs.40000/-
5.	P.I. Service for execution of the Project		@Rs.2500/-p.m.	Rs.30000/-
			TOTAL	Rs.1,57,000/-





LIST OF SPECIESFor Transportation Cages

1. Lion/Tiger/Bear
2. Leopard
3. Nilgai/Sambar/Swamp deer
4. Cheetal/Hog/Barking deer
5. Ostrich/Emu/ Cassowary
6. Macaws /Parrots/Cockatoos
7. Small Parrots
8. Pheasants
9. Munia/Budgerigar
10. Kite/Shikra
11. Macaque
12. Small Cats
13. Rhino/Elephants

Nest Boxes

1. Macaws
2. Cockatoos
3. Parrots/Cockateel
4. Budgriger
5. Horn<sup>n</sup>bill
6. Myna
7. Munia
8. Kite

## CURRICULUM VITAE OF DR.A. K. MALHOTRA

**Name :** ASHOK KUMAR MALHOTRA

**Date of Birth :** 01.06.1948

**Address :** Office: National Zoological Park, Mathura Road, New Delhi-3  
Telephone No. 24358500

**Resd:** Sect-4/266 R.K. Puram (Ph.26187693)  
N Delhi - 110022

**Nationality :** Indian

### Academic Details :

- \* Passed M.Sc.(Zoology) in 1972 from University of Rajasthan,Jaipur(Raj.)
- \* Ph.D. in Zoology (Wildlife) in 1979 from University of Rajasthan, Jaipur ( Raj.)
- \* Ph.D. Problem - Breeding biology,growth and reproductive success of Pariah kite ( Milvus migrans govinda ).

### Work Experience:

- \* Working with National Zoological Park,New Delhi since Feb.,1973
- \* Present post held - Curator (Education)
- \* Worked as Research Officer (Wildlife) (1992-96) in Ministry of Environment & Forests
- \* Supervised the field study on various aspects of Wildlife for M.Sc. dissertation students of Delhi University , Aligarh Muslim University, etc.
- \* P.I. for the project determination of factors responsible for the decline of avifauna of National Zoological Park.

### Field of Specialisation:

Animal Management, specially display technique in captivity.

### Membership:

- (1) Member International Zoo Educator Association
- (2) Member Zoo Outreach Organisation, Coimbatore
- (3) Member Wildlife Society of Delhi.

### Additional Information :

- (1) National Awards - Annexure - I
- (2) Professional Training - Annexure - II
- (3) List of books published - Annexure - III
- (4) List of published works - Annexure - IV

ANNEXURE -I

NATIONAL AWARDS/ HONOURS

1. **Bal Sahitya Puraskar** for the book - **Aao Chiryaghar Ki Sair Karain** , Delhi Admn., Delhi (1989).
2. **National Award** for original writing of book in Hindi - **Parvashi Jeev Jantu**, M/o Environment & Forest (1990).
3. **Bal Sahitya Puraskar** for the book -**Door Desh Ke Panchi**,NCERT(1990-91)
4. **National Award** for original writing of book in Hindi - **Himalya Pardushan**, M/o Environment & Forest (1996).
5. **Bal Sahitya Puraskar** for writing of book - **Rang Birange Jeev Jantu**, M/o Information & Broadcasting, 2000.
6. **Paryavaran Mitter Samman 2000** - Paryavaran Sachetak Dal 1-A, Under Hill Road, Civil Line, Delhi-110054.
7. Chaired one session of the International Seminar on **Zoo Management**, held in February, 1990 in Sakkarbaug Zoo, Junagarh (Gujrat), India.

ANNEXURE -II

PROFESSIONAL TRAINING:

1. Trained in Interpretative Techniques applicable to Zoological Parks and National Parks. The Seminar was conducted by Department of Interior U.S.A. w.e.f. Sept.,9,1982 to Oct.,1982 at Washington D.C. ,U.S.A.
2. Undertaken training in Management of National Park and Wildlife Reserve held from 02.06.97 to 27.06.97 at University of New England, Armidale, Australia.

ANNEXURE - IIILIST OF BOOKS PUBLISHED:

1. Aao Chirya Ghar Ki Sair Karain (A visit to a Zoo)
2. Desh Videsh Ke Chiryaghar (Zoos of World)
3. Parvashi Jeev Jantu (Migratory Animals)
4. Door Desh Ke Panchi ((Bird Migration)
5. White Tiger (White Tiger)
6. Rang Birange Jeev Jantu (Animal Colouration)
7. Himalay Pardushan (Pollution in Himalaya)
8. Parvashi Pakshi (Migratory Birds)
9. Bharat Ke Chiryaghar
10. Wildlife facts

UNDER PUBLICATION:

1. The Pariah Kite
2. Bhavishya Ke Urja:(Hydrogen)(Future Energy:Hydrogen)

ANNEXURE - IVLIST OF PUBLISHED WORK OF DR. A.K. MALHOTRA:

1. A note on Rhiphicephalus sanguinus (LATR)infestation on lesser Panda (Ailurus fulgens) and Jaguar, (Panthera onca) : Indian vet. Jour. Vol. 52. pp.730 (1975).
2. White Tiger - its Management and breeding in captivity Animal Citizen Vol.XIII No.1(1975).
3. Hand Rearing of Crocodile (Crocodilus palustris ) at Delhi Zoological Park Cheetal - The Wildlife Preservation Society of India Vol. 17 (1) pp.44-45 (1975).
4. A note on the captive status of the Lion -tailed Macaque (Macaca silenus) in India and its breeding at Delhi Zoo Int. Zoo Year Book. London Vol.16 pp.115-117 (1976).
5. Breeding Emu (Dromiaius novaehollandiae) at Delhi Zoological Park ~'Cheetal' ~The Wildlife Preservation Society of India, Dehradun Vol.18 No.142 (1976).
6. Growth and development of Pariah Kite (Milvus migrans govinda). Yamashima, Int. Orn.Vol. 9 No. (2), 49 (1977).

7. A note on Incubation period of reproductive success of Red -Wattled Lapwing (*Vanellus indicus* ) at Delhi Zoological Park Jour. Bomb. Nat. Hist. Soc.Vol.73(2)pp.392-394 (1977).
8. The Manipur Brow -antlered Deer its status and breeding in captivity. Int. Zoo Year Book London Vol. 13 pp. 235-36 (1978).
9. Breeding biology of Pariah Kite (*Milvus migrans*) at Delhi Zoological Park. Ibis Vol.121(3) pp.320-325 (1979).
10. Embrology of Pariah Kite (*Milvus migrans govinda* ) Yamashima, Inst. Orn. Vol.12 No.3 (No.59) (1980).
11. Annual Gonadal Cycle of Black Kite (*Milvus migrans govinda*) Yamashima Inst.Orn. Vol.(14/2/3) (1982).
12. A note on Chemical Immobilization of Zoo animals with blow pipe Indian Jour. Vet. Sur.4(2)78-81 (1983).
13. Check List of free living birds of National Zoological Park, indian Zoo Buletin Vol.III (1) pp.1-8(1984).
14. Interpreting the Zoological Park Indian Zoo Bulletin Vol. IV (1) pp. 83 (1985).
15. Genetic of Black Panther (*Panhra pardus*) ~ Cheetal- Wildlife Preservation Society of India, Dehradun, Vol.,27 (3) pp.21-23 (1986).
16. Breeding Biology of Bay-backed shrike (*Lanius Vittatus*) at National Zoological Park, Bomb. Nat., Hist.Soc. Vol.83 (1) 200-201 (1986).
17. Summary of Visitors' Data of National Zoological Park, Zoo's Print, Nov. (1987).
18. Behaviour and Breeding Biology Of Pied Mynha (*Sturnus contra contra*) and Common Mynha (*Acridotheres tristis tristis*) Cheetal ~ Wildlife Preservation Society of India, Dehradun,.Vol.,29 No.1 pp.54-59(1988).
19. The Zoo as an Educational Institution - Zoo's Print, Nov. (1988).
20. A survey of status and breeding of Indian Wild Ass (*Equus hemionus khur*) in captivity in India. Zoo's Print, Nov. (1989).
21. Note on nesting of Indian Purple Sunbird (*Nectarinia asiatica*) at the National Zoological Park- Zoo's Print, Feb. (1990).
22. Nesting activities, growth and development of Night heron(*Nycticorax nycticorax*) at National Zoological Park. - Indian Zoo Bulletin Vol.V pp.1-4 (1990).
23. Interpretation - Its Origin, definition and objectives - Indian Zoo Bulletin Vol.-V pp.40-42 (1990).

24. Site Fidelity and Power of Recognition in Pariah Kite (*Milvus migrans govinda*) Journ. Bomb. Nat. Hist. Society Vol.87 (3) pp-458 (1990).
25. Conservation Education at National Zoological Park. Zoo's Print pp - 29-30, March (1990).
26. Some observations on Painted Storks (*Mycteria leucocephalus*) at National Zoological Park. - Zoo's Print Vol. VI (1) Pp -7 Jan.,1991.
27. A success story of White or Rosy Pelican - Zoo's Print Vol.VI(7) pp.14, July (1991).
28. Rate of Birth & Mortality in Indian Wild Ass (*Equus hemionus khur*) at National Zoological Park- Indian Zoo Bulletin Vol.VI (1-2) (1993 & 1994).
29. Breeding of Red Jungle Fowl (*Gallus gallus murghi*) in captivity- Indian Zoo Year Book Vol. No.II (1997).
30. Zoo- An Effective Educational Tool - Compendium of 14th I.Z.E. Conference (1998).
31. A note on the Reappearance of White backed Vulture (*Gyps bengalensis*) in Delhi - Zoo Print, Vol. XVI, No., June, 6, 2002.
32. Management of Must Elephant at National Zoological Park - Zoo Print, October/November, 2003.
33. Vanishing tree – living birds of National Zoological Park—Indian Zoo Year Book Vol. III--2003

#### ARTICLES PUBLISHED IN POPULAR JOURNALS :

1.	Door Desh Se Aane Wale Pakshi	Vigyan Pragati	Nov., 1984
2.	Chirya Ghar Ki Sair	___ do ___	Feb., 1985
3.	Janwaro Ke Panje	___ do ___	June/July, 1985
4.	Lion -tailed macaque	Indian Wildlifer	Aug/Sept. 1981
5.	The White Tiger Of Rewa	Indian Wildlifer	Nov/Dec. 1981
6.	Endangered Bird Great Hornbill	Intensive Agri.	Nov/Dec, 1984
7.	Peacock Pheasant	___ do ___	January, 1985
8.	Chir Pheasant	___ do ___	Feb., 1985
9.	Nicobar Pigeon	___ do ___	March, 1985
10.	Siberian Crane	___ do ___	April, 1985
11.	Great Indian Bustard	___ do ___	May, 1985
12.	Janwar Kase Kabu Main ate Hain	Vigyan Pragati	Jan., 1987
13.	Jatinga Main Pakshio Kee Atam Halya	Vigyan Pragati	Aug., 1987
14.	Janwar Sardi Se kaise Bachav karte hai	___ do ___	Dec., 1988
15.	Parwasi Jeev jantu -Part-I	___ do ___	Feb., 1989
16.	Parwasi Jeev Jantu-Part-II	___ do ___	April, 1989

17.	Parvasi Jeev Jantu-Part-III	_____do_____	July, 1989
18.	Sanpo Ki Duniya	Paryavaran	March, 1989
19.	Janwaron Main batcheet	Vigyan Pragati	Sept., 1989
20.	Jeev Janloon Ke bare Main kuch Rochak Batain	Paryavaran	Dec., 1989
21.	Goshle Terh Terh Ke	Paryavaran	March, 1990
22.	Pakshi Vihar- Bharatpur	Paryavaran	Sept., 1990
23.	Hamara Paryavaran Va Viswa Sahyog	Paryavaran	June, 1991
24.	Siberian Sarus	Vigyan Pragati	April, 1994
25.	Desh Videsh Ke Chiryaghar	Paryavaran	Sept., 1995
26.	Bhaloon Ki Duniya	Paryavaran	June, 1996
27.	Anokha Prani- Mugger Mach -	Paryavaran	June, 1998

### Radio Talks

1. Chiriya Ghar Ki Sair
2. Mansahari Janvaro ke Bare.
3. Bhartiya Pakshi.
4. Parvasi Pakshio ke bare main.
5. Kahani Safed Sher ki.
6. Bhalu ki duniya.
7. Sher ki kahani.
8. Harriare Rashtriya Pakshi.