



DEPARTMENT OF ENVIRONMENT
GOVERNMENT OF INDIA

National Wildlife Action Plan



**“the survival of man is dependent on
the survival of animal and plant life”**

Prime Minister Indira Gandhi

National Wildlife Action Plan

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National Wildlife Action Plan

Introduction

The Prime Minister's statement to the XV meeting of the Indian Board for Wildlife, held on October 1, 1982, laid down the following list of aims on which a strategy and action programme for wildlife conservation in the country should be based:

1. The establishment of a network of protected areas such as national parks, sanctuaries and biosphere reserves, to cover representative samples of all major wildlife ecosystems and with adequate geographic distribution.
2. The restoration of degraded habitats to their natural state, within these protected areas.
3. The rehabilitation of endangered and threatened species and their restoration to protected portions of their former habitats, in a manner which provides some reflection of their original distribution.
4. The provision of adequate protection to wildlife in multiple use areas (such as production forests and pasture lands) so as to form "corridors" linking up the protected areas and providing for genetic continuity between them.
5. Support for the management of botanical and zoological parks and gardens and undertaking captive breeding programmes for threatened species of plants and animals.
6. The development of appropriate management systems for protected areas, including a professional cadre of personnel fully trained in all aspects of wildlife and sanctuary management, as well as the provision of proper orientation to all officers concerned with wildlife.
7. The development of research and monitoring facilities which will provide a scientific understanding of wildlife populations and habitats essential to their proper management.
8. Support for wildlife education and interpretation aimed at a wider public appreciation of the importance of wildlife to human betterment.
9. The review and updating of statutory provisions providing protection to wildlife and regulating all forms of trade, so as to ensure their current effectiveness.
10. Assistance in the formulation and adoption of a National Conservation Strategy for all living natural resources on the lines of the World Conservation Strategy launched in 1980.

11. Participation in international conventions designed to prevent the depletion of the wildlife resources and to provide protection to migratory species.
12. Long-term conservation of wildlife based on the scientific principles of evolution and genetics.

On this basis and taking into consideration the long-term conservation of wildlife based on the scientific principles of evolution and genetics, as well as the social and cultural ethos of the country, the following action plan has been drawn up.

1. Establishment of a Representative Network of Protected Areas:

1.1 Objective

Establish a network of scientifically managed protected areas such as national parks, sanctuaries and biosphere reserves, to cover representative and viable samples of all significant biogeographic sub-divisions within the country. Such protected areas should have an adequate geographic distribution.

1.2 Action Required

Review classification of protected areas in India and establish agreed biogeographic classification. Review location, size, ecological composition and viability of all existing protected areas in relation to the biographic zones, noting those which are inadequately represented at present. Establish new protected areas to ensure adequate representation of all zones and institute a periodic review of the overall situation.

1.3 Priority Projects

- 1.3.1 Establish agreed biogeographic classification for India on the basis of floral and faunal associations ("biomes"). Some assistance may be found in the ongoing work of IUCN on biographic provinces, and our understanding of forest types based on the work of Champion and Seth and the maps from LANDSAT imagery prepared by the Forest Survey of India. However, if the classification is to form an adequate basis for the distribution of protected areas, it must be firmly based on the distinctive floral/faunal associations of the Indian Subcontinent (and their geomorphological and climatic concomitants) and not merely on vegetation or forest types.

Timing: Initiate at the earliest and complete by mid-1984

Responsibility: Special group set up by DOEn, including representatives of FSI, GSI, ZSI, BSI, WII and with the possible assistance of an international body such as IUCN

1.3.2

- 1.3.2.1 Review location, size, viability and quality of management of all existing protected areas in relation to biogeographic zones of the country and draw up lists of zones which are:

1.3.2.1.1 Completely unrepresented by any type of protected area at present.

1.3.2.1.2 Poorly represented at present, i.e. by having inadequate area under protection status, due to the protected areas

being too small or poorly located from the point of view of preserving typical examples of the range of habitats within the zone.

1.3.2.1.3 Adequately represented from the point of view of location and size of protected areas but presently poorly managed.

1.3.2.1.4 Adequately represented from the point of view of location and size of protected areas and well managed.

1.3.2.2 Draw up a list of locations, which is desirable to bring under protected area status in order to rectify present deficiencies in the representativeness of protected areas reflected in lists 1.3.2.1.1 and 1.3.2.1.2 or for the sake of the preservation of particular plant or animal species which are threatened.

Note: The list should indicate the type of protected area (National Park, Sanctuary, Biosphere Reserve, etc.) recommended in each case.

1.3.2.3 Draw up detailed recommendations for improvement of the management of protected area units listed as presently poorly managed (1.3.2.1.3).

Timing: 1984-85

Responsibility: Special group set up by DOEn

1.3.3 Bring the recommendations in 1.3.2.2 and 1.3.2.3 above to the attention of concerned States and Union Territories with a specific request for appropriate action regarding gazettelement and management of protected areas called for within their jurisdiction. The States' response to these requests should be carefully monitored, with follow-up action by the Government of India as necessary.

Timing: Immediately on completion of Project 1.3.2 and continuing

Responsibility: DOEn

1.3.4 Institute a periodic review (every 5 years) of protected areas within the country, noting relative changes between categories 1.3.2.1.1 to 1.3.2.1.4 above and recommending any addition felt necessary in any of these categories, as well as existing units where the management needs to be improved.

Timing: 1989 continuing

Responsibility: DOEn

2. Management of Protected Areas and Habitat Restoration:

2.1 Objective

Develop appropriate management systems for protected areas, with due regard to the needs of the local people and ensuring their support and involvement;

Restore degraded habitats to their natural state (as far as this can be ascertained);

Build up a professional cadre of personnel fully trained in all aspects of wildlife and sanctuary management; and provide proper orientation to all officials concerned with wildlife.

2.2 Action Required

In order to improve the management of protected areas, publish in manual form technical information on such matters as planning the protected area, details of management practices and techniques, including biological aspects, law enforcement, public relations/education and provision for ensuring the long-term welfare and involvement of local people, for the benefit of officers managing protected areas at various levels.

To ensure compatibility between the protected areas and their surroundings, the latter should be identified as Special Areas for Eco-Development (SAEDs) where conservation oriented community development programmes should be undertaken.

Identify all degraded habitats within existing protected areas and frame and carry out recommendations for their restoration, including the preparation and execution of management plans for the areas concerned. Where appropriate, habitat restoration should be accompanied by welfare and development measures to replace or ameliorate the dependence of local people on natural resources within the protected areas.

There is also a need for an up-to-date look at manpower needs, recruitment, training and career development for wildlife officers at various levels, resulting in a clear statement of the kind of cadre the Government wishes to build in order to achieve its objectives in the maintenance of a network of scientifically managed protected areas. A further need is for an ongoing Central Body to examine and approve management plans for protected areas, ensuring some uniformity, and also to monitor their implementation.

2.3 Priority Projects

- 2.3.1 Finalise a manual on the planning and preparation of management plans for various types of protected areas, such

as national parks, sanctuaries and biosphere reserves. The manual should include instruction on the siting, shape and size of the protected area and its relation to the surrounding region, the welfare and involvement of people living in and around the protected area, as well as the preparation of a detailed development programme based on well formulated objectives for the unit. Careful prescriptions for the construction of buildings, in or near the protected areas, should also be included. The need for a quickly prepared interim action plan pending the preparation of an initial full-scale management plan should be indicated. Assistance may be obtained from guidelines on management being currently prepared by IUCN, as well as the better approaches adopted in India during recent years. (Guidelines for management plans are already in the process of being drawn up by a Government appointed Committee under the Chairmanship of the Acting Director, WII.)

Timing: 1983-84

Responsibility: Committee under Acting Director, WII

- 2.3.2 Prepare a manual on proven management practices and techniques used in different types of protected areas in India. This will include habitat management, animal management, law enforcement, wildlife education and provision for the involvement and welfare of people living in the vicinity of a protected area. (The production of such a manual is already included in the programme of the WII, with assistance from FAO; this comprises material from appropriate training courses of the institute.)

Timing: 1984-85

Responsibility: WII

- 2.3.3 Identify the surroundings of protected areas for eco-development and undertake community development programmes through the concerned agencies to elicit the support and involvement of the local people. In doing so, the recommendations of the Task Force of the IBWL, set up for this purpose, should be kept in view (Annexure).

Timing: 1984 and ongoing

Responsibility: DOEn and concerned Central Ministries/Departments as well as State Governments

2.3.4

- 2.3.4.1 With the assistance of knowledgeable persons, State officials and, where necessary, on-the-spot visits, draw up a list of all protected areas presently having degraded habitats (which should be briefly described and their extent indicated).

Note: This exercise could be carried out in conjunction with the assessment of management quality in connection with 1.3.2.1.3 and 1.3.2.1.4 above. Degraded habitats include those where the natural vegetation cover has been extensively removed or replaced by the planting of exotic species and/or monocultures; areas subject to major soil erosion; polluted waters; areas disturbed by extensive removal of fuel wood, thatching grass, etc. or by human settlement and/or grazing of domestic stock.

- 2.3.4.2 Recommend specific measures, with a time-frame, for the restoration of each of these degraded areas, emphasising that the measures prescribed should be incorporated into a scientific management plan for the entire protected area. Where no such plan presently exists, an interim action plan should be executed, pending the preparation of a full-scale management plan.

Restorative measures will include the freeing of National Parks and core areas of sanctuaries of all forms of human use and its careful regulation elsewhere. In framing such measures, provision should be made for improved welfare of the local people involved by, for example, the replacement of fuel wood by biogas or thatching grass by asbestos roofing. The possibility of generating productive employment and improving livestock quality, so as to reduce numbers, should also be considered.

Incentives should be provided for the improvement of habitats adjacent to protected areas, not under Government control.

The possibility of biological control of exotic weeds, such as *Lantana camera* and *Mikania scandens* should also be borne in mind.

Timing: 1984-85

Responsibility: Group appointed by DOEn (possibly the same group as that of Project 1.3.2)

- 2.3.5 Bring the fact, that these protected areas contain degraded habitat, to the notice of concerned States, with a clear statement of the nature of the degradation and detailed recommendations for remedial action, within a stated time schedule. Monitor the State's response to the recommendations made and take any necessary follow-up action by the Government of India.

Note: The Government of India might consider some form of Central financial assistance to States for the restoration of declared degraded habitats, thus offering an incentive to restoration.

Timing: 1984-85

(as reports of Project 2.3.4 become available)

Responsibility: DOEn

- 2.3.6 Periodically review areas from the point of view of degraded habitats and carry out action described in 2.3.5 above as necessary.
 Timing: Ongoing
 Responsibility: DOEn or group appointed by DOEn
- 2.3.7 Examine manpower needs, modalities of recruitment, service conditions and career prospects for wildlife management officers at both professional and technical levels and make recommendations for the development of a cadre to meet the needs of planned scientific management of protected areas in the years ahead.
 Timing: Early 1984
 Responsibility: Committee appointed by DOEn
- 2.3.8 Finalise syllabi and other arrangements for the following training courses, basing size of intakes on projections of manpower needs drawn up by Project 2.3.7. (These courses are discussed in detail in the Government of India document, Establishment of the Wildlife Institute of India 1981.)
- 2.3.8.1 One-year post-graduate diploma course for in-service forestry officers for managers of protected areas and other wildlife units. (Revision of this syllabus is already in hand at WII.)
- 2.3.8.2 A two-year post-graduate equivalent diploma course for fresh graduates, with appropriate biological background, who wish to proceed to wildlife management or research.
- 2.3.8.3 A graduate level course in Wildlife Management for in-service forestry subordinates (Range Officer level) and fresh Senior Secondary Certificate holders wishing to enter service at this level. (This course should be conducted by a satellite subordinate unit of WII.)
- 2.3.8.4 Short-orientation courses for working forest officers to present management approaches that cater for wildlife needs in multiple use situations (Reference 3.3.4.2).
 Timing: Ongoing
 Responsibility: Governing Body of WII
- 2.3.9 Establish permanent Central machinery for the vetting and approval, if necessary, of all management plans for protected areas and monitoring their implementation.
 Timing: 1983-84 and ongoing
 Responsibility: DOEn, IBWL
- 2.3.10 Assess objectively the extent of poaching of wild animals and illegal removal of plants and plant products from protected areas, throughout the country. Where considered necessary on the basis of this assessment, make recommendations for the institution/strengthening of specific measures to deal

with such illegal and ecologically damaging activities. Such measures may include the setting up of appropriately equipped and trained anti-poaching squads. Recommendations should indicate the mode of financing of the measures prescribed, including, if necessary, Central Government assistance.

Timing: Continuing

Responsibility: Special "anti-poaching" group to be set up by DOEn

3. Wildlife Protection in Multiple Use Areas:

3.1. Objective

Provide adequate protection to wildlife in multiple use areas (such as production forests and pasture lands) so as to form "corridors" linking up the protected areas and providing for genetic continuity between them.

3.2 Action Required

Evolve prescriptions for the management of multiple use areas which provide for wildlife habitat needs and protection alongside the production of timber, fuelwood and other forest products; for example, by staggering plantations, leaving strips of natural forest and tightening anti-poaching measures. Priority for such prescriptions, which must be incorporated into forest working plans, should be given to multiple use areas adjacent to protected areas. In addition to a manual, courses for IFS probationers and orientation courses for forest officers managing multiple use areas are necessary to teach forest management approaches that cater to wildlife needs (a few such courses are already being provided by WII) and to inculcate the right attitude. It is further necessary to identify and manage appropriately corridors within multiple use areas that are essential for genetic continuity between artificially separated sub-sections of a wildlife population and migration of species such as the elephant.

3.3 Priority Projects

- 3.3.1 Produce a manual for forest officers and those preparing working plans, containing prescriptions for the provision of wildlife protection and habitat needs within worked forests and other multiple use areas. In addition to details of appropriate forestry practices, the manual should show how to maintain effective anti-poaching measures and regulate practices such as domestic grazing, which conflict with wildlife needs. Provision for human welfare in and around multiple use areas must also be included.

Timing: 1984-85

Responsibility: Group set up by DOEn and Ministry of Agriculture, Forestry Division, officers with experience of both production forestry and wildlife management. Input from FRI and WII is essential.

- 3.3.2 Identify and prescribe appropriate management (in the light of 3.3.1 above) for corridors essential to the movement of wildlife between protected areas and artificially isolated subsections of species populations. This will include migration routes of species such as elephants and "diffusion" corridors for tigers in areas where factors of habitat distribution are bringing them into conflict with man.

Timing: 1984-85

Responsibility: Same group as for 3.3.1 with the representatives of Asian Elephant Group and Project Tiger

- 3.3.3 Examine the particular problems of law enforcement in multiple use areas, with special attention to poaching and the illegal removal of forest products inimical to the welfare of wildlife. Recommend measures for the control of such problems which are specifically geared to the management pattern of multiple use areas. For example, temporary anti-poaching squads may need to be set up to protect a migratory species which is only in a vulnerable area at a particular season of the year. Where such measures are recommended, details of finance, equipment and training should be included.

Timing: 1983 ongoing

Responsibility: "Anti-poaching" group proposed under Project 2.3.9

3.3.4

- 3.3.4.1 Bring prescriptions, developed under Project 3.3.1, to the attention of State Forest Departments, with a time-bound request for implementation in multiple use areas adjacent to protected areas and incorporation into all forest management plans.
- 3.3.4.2 Refine and develop further, as appropriate, WII courses on management of wildlife in worked forests for IFC probationers and working forest officers (orientation courses).
- 3.3.4.3 Bring the identity and management prescriptions of critical wildlife corridors (Project 3.3.2) to the attention of concerned States, offering Central assistance, where appropriate, for such purposes as the acquisition of private land and provision of wildlife barriers (electric fencing, etc.) in order to improve the effectiveness of the corridors.

Timing: 1984 onwards (on the completion of Projects 3.3.1 & 3.3.2)

Responsibility: DOEn, WII

4. Rehabilitation of Endangered and Threatened Species:

4.1 Objective

Rehabilitate indigenous, endangered and threatened species of flora and fauna and restore them to protected portions of their former habitats, in a manner which provides some reflection of their distribution in recent historic times (100-150 years ago).

4.2 Action Required

Draw up guidelines for the assessment of degrees of threat, as a prelude to drawing up a list of endangered animal and plant species with recommendations for appropriate rehabilitation measures. These measures should be carried out on a priority basis, with collaboration of concerned State Governments, under Central assistance. A Central wild animal capture and translocation unit should be set up to assist rehabilitation and other wildlife projects.

4.3 Priority Projects

- 4.3.1 Establish guidelines for assessing the degree of threat (status) to animal and plant species in India. Categories used in the IUCN Red Data listing, viz., "extinct, endangered, vulnerable, rare, indeterminate, out of danger, insufficiently known", may be appropriate for animal species but plant species may require a separate approach and should certainly not be assessed merely on their presence in herbarium collections; field surveys will be required in some cases.

Timing: 1984-85 (Continuing)

Responsibility: Group set up by DOEn (including BSI and ZSI)

- 4.3.2 After conducting appropriate enquiries and field surveys, draw up lists of threatened species of animals and plants, indicating degree of threat according to the established guidelines (Project 4.3.1). Against each species, former and present distribution, and approximate numbers, where known, should be indicated, as well as causes of decline and existing constraints.

For each species indicate the need for specific rehabilitation measures and identify areas where restoration and/or re-introduction, if necessary, will have the best chances of success. Should a captive breeding programme be necessary, the species should be referred to Section 5.

Timing: 1984-85 and ongoing

Responsibility: Group appointed by DOEn, and including WII, ZSI and BSI

4.3.3 The Government of India should bring the measures proposed for the rehabilitation of particular species to the attention of the concerned States, seeking their initiative and collaboration in the execution of the measures on a priority basis. The Government of India should have a separate scheme of Central assistance to States for special programmes addressed to the rehabilitation of threatened species.

Timing: 1984 and ongoing
Responsibility: DOEn

4.3.4 The Government of India should set up a Central Wildlife Translocation Unit in order to assist translocation and re-introduction projects (preliminary proposals for such a unit have already been formulated, including provisions for zone-wise deployment of sub-units).

Timing: 1984
Responsibility: DOEn, WII

5. Captive Breeding Programmes:

5.1 Objective

Support the management of captive propagation and breeding programmes for plants and animals, for re-introduction of threatened species to the wild and, where appropriate, utilise species which are plentiful.

5.2 Action Required

Identify candidate species for Government sponsored captive propagation and breeding and design specific projects for each species. Since captive breeding is an expensive exercise, only those few species, where preservation efforts in the wild are proving ineffective, should be considered for such programmes, which, in any case, should aim at re-introduction into the wild as early as possible. Training in the specialist techniques of captive breeding of particular species is required for the personnel of botanical gardens, zoological gardens, etc. along the lines of the training provided for technical officers by the Crocodile Breeding and Management Project.

5.3 Priority Projects

- 5.3.1 Draw up a list of species which, due to being severely threatened and unlikely to survive in the wild or for other reasons of state-wise or national importance, require a degree of protection and fostering which can only be provided by a captive breeding programme (Project 4.3.2, when completed, can provide the basis for a list of threatened species requiring a captive breeding programme). The list should clearly indicate reasons for inclusion of a species, including reasons for decline in the wild, and present numbers (and sexes and ages in case of animals) at each wild or captive location.

Design a time-bound captive breeding project for each species on the above list, including suitable location(s), whether zoological or botanical gardens or otherwise and assign a suitable body (State Forest Department, Zoo Management Committee, etc.) to be responsible for the project, taking into account their knowledge of the captive husbandry of the species and past performance therein.

A special breeding complex within the natural habitat where the species is to be ultimately released may be preferable to a zoological or botanical garden. In any case, a captive breeding programme should include the preparation of a carefully chosen release site(s) within a well-managed protected area. Technical assistance available from Indian or foreign sources should also be indicated. The possibility of exchanging breeding individuals

and/or sperm stocks between several locations within a particular species project should be borne in mind. Central or other financial assistance for a captive project should be built into the project proposal.

Regular monitoring of the progress of Government sponsored captive breeding projects will be essential.

Timing: 1984 ongoing

Responsibility: DOEn, via Expert Committee under Director, WII

- 5.3.2 Provide training in the captive propagation of plants and breeding of animals via short specialist courses to personnel of botanical gardens, zoological gardens and captive breeding programmes and the sponsoring of short overseas visits for types of training not available in India. Manual(s) based on such courses should also be produced.

Timing: 1984-85 ongoing as dictated by demand

Responsibility: i) BSI—for plants
ii) WII (with support from FAO consultancy and overseas training programme)—for animals

6. Wildlife Education and Interpretation:

6.1 Objective

Promote and support wildlife education and interpretation aimed at a wider public appreciation of the importance of wildlife to human betterment.

6.2 Action Required

Address wildlife education to different target groups, particularly (i) politicians, decision-makers and administrators, (ii) the general public, including school and college students at all levels, and (iii) communities living in and around the wildlife areas to educate visitors to protected areas and zoological parks and botanical gardens, the provision of interpretation facilities such as information centres, good signage, nature trails and guided tours is essential. Each major unit should have an education/interpretation officer.

There is a great need for the training of personnel in wildlife education and interpretation approaches. Courses should be organised for graduates with an appropriate background and aptitude (biology, school teaching, public relations, communications, etc.) who could be recruited as wildlife education officers in protected areas, zoological gardens, natural history museums, etc. Design of interpretation approaches and infrastructure is another important area which so far has received scant attention in our overall conservation effort.

Support for non-governmental organisations should include the provision of finance for the production of wildlife education materials. A wildlife film library should be started by the Government of India aimed at hiring out films to wildlife organisations at a nominal rental.

The recommendations of the Task Force on Public Support for Wildlife Conservation need to be kept in view all along.

6.3 Priority Projects

- 6.3.1 Set up, at WII, a separate division of wildlife education/interpretation. The aim of the division would be (i) to provide training in wildlife education within the 1- and 2-year post-graduate diploma courses and the graduate level course; (ii) to conduct specialist shorter courses (4-6 weeks) for in-service wildlife officers, zoological garden employees, school and college teachers and short (1-2 days) orientation seminars for politicians and decision-makers; (iii) to conduct research into public relations and interpretation approaches for various sectors of the public, including the design of information centres, audio-visual materials and other wildlife educational facilities; and (iv) to

design school materials in wildlife conservation at all levels from primary level upwards, with a view to promoting interest and enthusiasm for wildlife.

Timing: 1984-85

Responsibility: DOEn, Governing Body of WII & NCERT

- 6.3.2 Establish model interpretation programmes (including a fully trained education officer) at wildlife units having a good volume of visitors such as Bharatpur, Kanha National Park, Gir National Park, Dudhwa National Park, Kaziranga National Park, Nehru Zoological Park, Hyderabad, Nandankanan Biological Park, Orissa, and the National Zoological Park, Delhi. These will assist in the development and design of facilities/programmes and serve as demonstrations and inspiration to the directors of wildlife units elsewhere. They will also provide a basis for the practical field aspects of training in wildlife education proposed under Project 6.3.1. (Some progress in the provision of interpretation facilities has already been made at most of these units, in some cases with limited overseas assistance. However, it is necessary to ensure that first-class facilities and personnel are installed at an early date in order to set interpretation on a firmer footing in the country. Central financial assistance is needed to ensure this.)

Timing: 1983-85

Responsibility: DOEn with assistance from WII and appropriate overseas agencies and in collaboration with concerned State Governments and other authorities.

- 6.3.3 Design and advertise a comprehensive programme of financial subsidy and other support for accredited non-governmental organisations involved in the production of approved wildlife educational materials such as posters, pamphlets, slides, film and TV shows and museum displays, which must conform to basic standards laid down by the Government of India in order to qualify for assistance.

Timing: 1984 ongoing

Responsibility: DOEn

- 6.3.4 Set up a Central wildlife film library which makes available, on a non-profit basis, good quality wildlife cine films and audio-visual (slide) shows for nature clubs, schools, colleges, etc. Necessary equipment will need to be procured for storage and maintenance of films and trained personnel engaged.

A later addition could be regional sub-units of the library, equipped with mobile cine vans for taking films to rural communities.

Timing: 1985

Responsibility: DOEn, WII

7. Research and Monitoring:

7.1 Objective

Develop research and monitoring facilities which will provide a scientific understanding of wildlife populations and habitats essential to their proper management and, where appropriate, their utilisation.

7.2 Action Required

Build a deeper understanding of our wildlife ecosystems in order that their management can be more scientifically based. At present the almost total lack of rigorously obtained data represents a great hinderance to the development of well-tuned management practices. Data are required on broad ecosystem components (hydrology, soils, vegetation, animal numbers, etc.), repeated at regular intervals (monitoring); on more detailed dynamics of sub-systems, e.g. the herbivore community in a particular protected area; on the biology of individual species which are the subject of special management measures, such as rehabilitation; and on the effectiveness of management practices, such as habitat manipulation, wildlife barriers or disease control.

Establish priorities for the collection of research data on a national as well as individual-unit basis and provide incentives for individuals and bodies, such as universities and non-governmental organisations to take up appropriate studies to supplement what can be undertaken by Central and State Government agencies. A Central Data Bank for broad-scale monitoring data, collected on a nationally agreed format, should be set up. Training in the specialised approaches of wildlife research is lacking at present and should be initiated on a priority basis.

7.3 Priority Projects

- 7.3.1 Set up a national committee on wildlife research to establish and regularly review research priorities, commission projects from suitable Government and non-government agencies, allocate financial assistance on both a project and individual fellowship basis, scrutinise independent research proposals and monitor implementation and the use of resulting data in improved wildlife management practices. (Work in some of these areas has already been undertaken by a Committee under the chairmanship of the I.G., Forests, which could contribute to the basis of the national committee's work. Some wildlife fellowship funds, under the control of Director, WII, already exist but may require supplementation.)

Timing: 1983-84 (Soonest)

Responsibility: Committee with Director, WII, as Convenor/
Member Secretary, to be set up by DOEn

7.3.2 Set up a national data bank on wildlife ecosystems, an initial task of which will be to design a standard format and machinery for the broad-scale monitoring of all wildlife ecosystems (including protected areas) in the country. Data collection methods for climate, hydrology, soils, vegetation factors, animal numbers, etc. should be designed so as to indicate long-term trends and give early warning of ecological imbalance, allowing corrective management action. Modern data storage and handling facilities will be essential and overseas expertise should be sought in the provision, setting up and use of such equipment.

Timing: 1984-85

Responsibility: DO En, WII

7.3.3 Institute research training by means of a 2-year post-graduate course containing treatment of wildlife research methods. Involve WII faculty, research officers and fellowship holders in individual and team-based research projects with which research scholars can be associated for purposes of practical field and laboratory training. Provide limited opportunities for overseas training in wildlife research methods appropriate to Indian conditions. (A syllabus for the 2-year post-graduate course will be prepared shortly with FAO assistance and there is already provision in the WII/FAO work plan for the involvement of faculty members and research officers in appropriate research programmes as well as some overseas training. The FAO Project is assisting with expertise and essential equipment not available within the country.)

Timing: 1983-84 and ongoing

Responsibility: WII, with assistance from FAO and other overseas agencies as appropriate

7.3.4 Encourage a limited number of appropriate university departments in the development of post-graduate teaching and research by means of a Government sponsored seminar/workshop on wildlife post-graduate curricula for universities and the provision of a list of priority research topics suitable for execution in the university context, i.e., concentrating on systems ecological studies and the biology of selected species. Financial assistance for such projects should be made available and drawn to the attention of the universities. (Cross-reference with Project 7.3.1 is necessary.)

Timing: Early 1984

Responsibility: WII, Project 7.3.1

7.3.5 Set up research units in a number of key protected areas (wetland, desert, Himalayan, terai, mangrove, etc. biomes) to carry out studies pertinent to that particular ecosystem including both basic biology and the effectiveness of management practices.

Timing: 1985 onwards (after initial training of some
research biologists)

Responsibility: DOEn, in collaboration with concerned State
Governments and overseas agencies willing to
offer assistance, where needed

8. Domestic Legislation and International Conventions:

8.1 Objectives

- 8.1.1 Review and update statutory provisions providing protection to wildlife and regulating all forms of trade, so as to ensure their current effectiveness.
- 8.1.2 Participate in international conventions, designed to prevent the depletion of wildlife resources and to provide protection to migratory species.

8.2 Action Required

Prepare and complete comprehensive legislation, including provision for wildlife and habitat protection, legal aspects of protected area management, compulsory assessment of environmental impacts for all development projects impinging on wildlife areas and trade in wildlife.

Regularly monitor provisions such as those of the Wildlife (Protection) Act, 1972, and undertake the implementation of international conventions, e.g. CITES in India. Where loopholes are detected, appropriate steps should be undertaken to amend legislation and redesign executive procedure.

8.3 Priority Projects

8.3.1

- 8.3.1.1 Review, update and improve existing wildlife legislation (Wildlife (Protection) Act, 1972).
- 8.3.1.2 Examine need for and draft new legislation required in relation to wildlife, e.g. implementation of CITES in India.
- 8.3.1.3 Review other existing legislation which has a bearing on the wildlife situation, e.g. Indian Forest Act, Forest Conservation Act.

Timing: 1983-84

Responsibility: Special group set up by DOEn

- 8.3.2 Examine the possible need for new bilateral or international treaties to enhance the protection of species and ecosystems whose range covers neighbouring countries, such as the Tibetan Wild Ass, Musk Deer and the Siberian Crane.

Timing: 1984-85

Responsibility: DOEn

- 8.3.3 Monitor the adequacy of the Wildlife (Protection) Act, 1972, and all other legislation which have a bearing on wildlife, including international conventions concerned with wildlife.

Timing: Continuing

Responsibility: IBWL, DOEn

9. National Conservation Strategy:

9.1 Objective

Assist in the formulation and adoption of a National Conservation Strategy for all living natural resources on the lines of the World Conservation Strategy launched in 1980.

9.2 Action Required

Draw up recommendations for the fulfilment of Objective 9.1 in consultation with the group or agency responsible for drafting the National Conservation Strategy.

9.3 Priority Project

Set up a small group to carry out the action required as per Section 9.2.

Timing: 1983-84

Responsibility: IBWL, DOEn

10. Collaboration with Voluntary Bodies:

10.1 Objective

Enlist support from and collaboration with voluntary bodies and agencies in the total wildlife conservation effort represented by this Action Plan.

10.2 Action Required

The involvement of Non-Government Organisations is of great importance to the total conservation effort of the country and there is an urgent need to define the role of such organisations and identify particular ways in which they can be of assistance.

10.3 Priority Project

Set up a group with members from the Government and voluntary conservation organisations to define the role of the latter and work out the modalities by which the above objective can be achieved.

Timing: 1984-85

Responsibility: DOEr/NGOs

Key to Abbreviations used in Action Plan

IBWL	Indian Board for Wildlife
DOEn	Department of Environment
GOI	Government of India
FSI	Forest Survey of India
GSI	Geological Survey of India
ZSI	Zoological Survey of India
BSI	Botanical Survey of India
WII	Wildlife Institute of India
IFS	Indian Forest Service
NCERT	National Council for Educational Research and Training
FRI	Forest Research Institute
IFC	Indian Forest College
FAO	Food & Agriculture Organisation of the United Nations
CITES	Convention on International Trade in Endangered Species
NGOs	Non-Government Organisations

Report of Task Force on eliciting Public Support for Wildlife Conservation

Summary

The Task Force was set up in pursuance of the recommendations of the Indian Board for Wildlife and its Standing Committee at their meetings held on February 9, 1981 and July 1, 1982, respectively. The term 'wildlife', as globally understood, denotes all uncultivated forms of flora and fauna and has been so construed in this report.

The Task Force commenced its deliberations by assessing the current levels of awareness and the degrees of apathy, indeed antipathy, towards wildlife among the different sections of the public and endeavoured to determine the causes. The urban people, upon whom the influences of a depleted or an optimum wilderness are subtle and indirect, are largely indifferent. Yet, since most decision makers and professionals emerge from this group, lack of concern cripples the needed support.

The outlook of the rural people is determined by the degree of their dependence upon forests for pasture, firewood, small timber and other forest products. This is adversely influenced by the progressive shrinkage and degradation of the wilderness and the factors responsible, i.e. expediency and the avariciousness of the onslaught on forests involving diversion to agriculture and other uses, and the unrestrained abuse and overuse of a shrinking resource impairing its capacity for renewal. Most communities in the neighbourhood of reserves sustain themselves by eroding marginal land and depleting forest pastures. In their precarious existence, enforcement of restrictions in wildlife reserves triggers antagonism. That discipline is essential to revive the essential life support systems that these areas provide is also not appreciated for the same reason.

The younger generation—both urban and rural—must be viewed as a different category. Their concern for wildlife generally remains undeveloped because of the lack of exposure and interpretation at an impressionable age, to its values and crucial significance. This adds to the degree of indifference of the adult populations and contributes to the current widespread apathy.

It is in this context that the Task Force has endeavoured to identify pragmatic strategies to engender public support for wildlife conservation.

Of overriding and primary importance is the need for each individual reserve to adopt a 'Core-buffer-multiple use surrounds' structure, wherein a restricted forest, i.e. buffer surrounds the core insulating it from an outer multiple use area, the last comprising forests and villages where land use practices are compatible with wildlife

conservation. While protection must be enforced in the core-buffer area, the multiple use surrounds should be subjected to rapid multilateral eco-development capable of enhancing the agricultural, pastoral and forest productivity of the area and to provide supplemental alternative resources. This is the only way in which compatibility of each area with the others can be brought about. It is only through such a structure of compatible reserves, in a network that is biogeographically representative and geographically adequate, that wildlife conservation can discharge its wider environmental responsibilities, including the conservation of the country's invaluable genetic resources and diversity.

Based on these convictions, the Task Force held discussions with the Planning Commission and a number of Central ministries that implement national programmes of development and education and control the media. There was unreserved acceptance of the Task Force's views particularly of the need to regard the multiple use surrounds of wildlife reserves as SPECIAL AREAS FOR ECO-DEVELOPMENT (SAEDs), with greater per capita inputs on development based upon firm conservation bias. Likewise, the need for greater provision in Central and State budgets for wildlife conservation schemes and for enhanced Central assistance was appreciated. Educational and media support, vital for the cause, was assured. The manner in which all this should be provided, however, needs to be elucidated for the benefit of the implementing agencies.

The salient measures that the Task Force has proposed are:

1. Rural Development:

Identify and recognise SAEDs around wildlife reserves in terms of ecological and administrative requirements of the reserve. While controlling usage with a conservation bias, provide higher per capita inputs in SAEDs on eco-development involving soil conservation, afforestation, forestry practices compatible with needs of local people and wildlife, improved dry farming techniques, micro-minor irrigation, pasture and fodder development, and improved but compatible animal husbandry, energy alternatives, etc.

2. Wildlife Conservation:

Enforce protection rigidly in the core-buffer wildlife reserves. Provide higher inputs so that eco-system restoration is rapid and that the buffers also develop sufficiently to prevent excessive spill-over of wild animal populations into the multiple use areas so as to minimise damage to crops and livestock. The reserves must have good interpretation services and tourism, restricted to specifically identified tourism-zones, should be well organised but strictly controlled both in volume and movement.

3. Education:

Review school syllabi at all levels in consultation with knowledgeable conservationists, who should be involved in production of text-book lessons and supplementary reading material. Teachers for nature education should be specifically trained and all teacher training

courses should have a nature education content. All technical, professional and administrative academies and institutions must have a hard core of conservation and environmental education subjects in their curricula. Nature study activity should be intensified at all levels from primary to university and technical education.

4. Media:

Prepare and exhibit appropriate programmes addressed to rural and urban population and to young people on an ongoing basis in the form of Films Division's documentaries, T.V. and Radio features. The press should be encouraged to carry regular features on conservation and environmental protection. All these must bring out the crucial relevance of wild flora and fauna as a part of life support systems as the very foundation for human survival. Postal stationary, as well as Post Offices, throughout the country must carry and permanently display conservation messages. The Banking system, Life Insurance Corporation and the governmental agencies must do so as a major part of their institutional advertising.

5. Decision Makers:

Arouse legislators, political and administrative executives and technocrats to the need to accept conservation and environmental imperatives as fundamental to their responsibilities through parliamentary and legislators environment forums and field visits/orientation camps.

6. Implementation:

An efficient mechanism to monitor the implementation of these guidelines, overseen by a watchdog committee, is necessary in order that wildlife conservation becomes effective and acceptable. As the workload has greatly increased over the last few years, the Central Wildlife Organisation is already handicapped for want of adequate personnel. It needs to be strengthened urgently for this reason. Immediately, however, a cell should be set up which should be responsible for ongoing follow-up of the implementation of these guidelines with the Ministries/Departments concerned of the Central and State Governments.



