

**Ministry of Environment & Forests,
Government of India**

**Report of
Working Group on**

**Wildlife, Biodiversity, Traditional
Knowledge and Animal Welfare**

**for the
Eleventh Five Year Plan
2007-2012**

**Submitted to
Planning Commission,
Government of India, New Delhi**

December, 2006



जहाँ है हरियाली ।
वहाँ है खुशहाली ॥

Working Group Report on

**Wildlife, Biodiversity,
Traditional Knowledge and
Animal Welfare**

for the Environment & Forests

Eleventh Five Year Plan (2007-2012)



सत्यमेव जयते

Government of India
Planning Commission

New Delhi

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Subgroup on Wildlife

1. Introduction

- 1.1** Conservation of wildlife and their habitats in independent India started in the decade of the 1970s, with the promulgation of the Wildlife (Protection) Act, 1972, the launch of the Project Tiger in 1973, and the constitution of a large number of Protected Areas. The number of Protected Areas has since grown to over 600 at present, but these are by themselves still inadequate to meet many of the challenges of wildlife conservation. At the same time, the challenges to conservation from a growing human population and market forces have grown several-fold, but the financial support to the forestry sector in general, and wildlife conservation in particular, has not increased proportionately. While the allocation for the Forestry sector continues to be below 1% of the total plan allocation, the allocation for Wildlife Preservation, within the Forestry sector, is also disproportionately low, despite the fact that our wildlife reserves are often the best forests as well.
- 1.2** While the Protected Area system has been the cornerstone of our conservation effort, these are generally too small to be able to sustain sufficiently rich genetic resources and ecological processes on their own and require 'networking' with other populations through the intervening habitat at the scale of landscapes. Otherwise the fragmentation of the landscapes would expose many of the larger wildlife species and associated biodiversity within the Protected Areas to extinction even if such areas are intact. Another threat to wildlife habitats is from alien invasive species that have been spreading rapidly through our forest areas. While wildlife in our Protected Areas has generally prospered so far, with some glaring exceptions, wildlife outside protected areas has suffered tremendously at the hands of humans. Although a new scheme to support wildlife conservation outside protected areas was introduced towards the end of the Tenth Plan, it will have to be sufficiently enlarged in order to make a difference. Finally, we face an entirely new challenge to the conservation of not just wildlife species but the overall biological diversity of our country from the impacts of future climate change, an aspect that has received scant attention in our conservation planning.

It is also being recognized in recent decades that wildlife-human conflict is a major issue in effective implementation of conservation. As long as the local people continue to see wildlife as a problem, the future of our wildlife is not safe. We need to take urgent steps to mitigate the sufferings of the people, and assuage their feelings, by taking concrete and credible steps to minimize and provide relief for their losses.

- 1.3** Poaching has emerged as a much bigger threat to our wildlife than was recognized so far. Although illegal international trade and trafficking may be driving the demise of the tiger and other flagships, the real killing of many wildlife species happens at the hands of a few communities, that have practiced this vocation for centuries. These communities, known by various names as *Pardhis, Bahelias, Mogias, Irulas*, etc. are spread all across the country. Conservation cannot prosper simply by ignoring or punishing them when caught. We must take note of their role and must find ways of weaning them away from their traditions by providing them viable alternative livelihoods. Better still, if their art of tracking and capturing wild animals can be harnessed for supporting conservation in some manner this would further strengthen our conservation efforts.
- 1.4** The Prime Minister has assured the country of adequate support for wildlife conservation but we have failed to take advantage of his intervention. Apart from the National Forest Policy and the National Wildlife Action Plan, we now have the reports of the National Forest Commission and the Tiger Task Force, the latter constituted at the initiative of the Prime Minister himself, to guide our way. Although the recent constitution of the National Tiger Conservation Authority and the Tiger and Other Endangered Species Crime Control Bureau certainly demonstrate our resolve to take decisive steps to strengthen conservation, the real test of our determination shall be how well these programmes are funded and effectively implemented.
- 1.5** The Eleventh Plan must continue to strengthen the traditional wildlife conservation efforts in the form of support for habitat and infrastructure development. But major initiatives in areas of relocation of villages from protected areas and critical wildlife habitats such as corridors, mitigation of wildlife-human conflicts, ecodevelopment, rehabilitation of hunting communities, and integrating research with management will be required to make further progress.

2. Brief Review of Existing Schemes and Associated Needs of the Sector

2.1 The Central Government provides financial support to the States for supporting conservation of wildlife and biodiversity, through the following umbrella schemes:

1. Development of National Parks and Sanctuaries (DNPS);
2. Project Tiger (PT)
3. Project Elephant (PE)
4. Protection of Wildlife Outside Protected Areas (PWOPA).

2.2 While the first three schemes have been in existence during the previous plans also, the fourth scheme has been proposed (and accepted) for the Tenth Plan for the first time. Up to the Ninth Plan, there were two more schemes, namely, the *Beneficiary Oriented Scheme for Tribal Development* (to support relocation of villages from PAs) and *Ecodevelopment Around Protected Areas*, but these schemes were merged with Development of National Parks and Sanctuaries and Project Tiger in the Tenth Plan. Generally this has been mistaken by the people as a shifting of emphasis from these two critical action areas while the stated reason for this merger was only to reduce the number of schemes for the sake of administrative convenience and flexibility, under the general policy of the Planning Commission. As the Protected Areas have so far been the backbone of conservation in India, nearly all the financial resources were traditionally dedicated for the creation and strengthening the PA network and their management. However, with the advent of Project Elephant, a new dimension was added to this scenario when resources began to be allocated for conservation work in non-PA habitats as well. However, even under Project Elephant, only areas associated with the presence of elephant are being supported. Large areas which support low-density populations of relatively common species also need some support, and thus the new scheme appropriately named as PWOPA has plugged this glaring gap in the national conservation effort and will, hopefully, go a long way in making conservation more effective and holistic.

2.3 As mentioned at the outset, these are umbrella schemes which provide scope for financing nearly every action that requires to be taken for the conservation of wildlife in the areas covered by them. The basic structure and the activities that can access these funds are almost exactly the same in the three PA-based schemes, and the only distinction between them is regarding the areas covered by them. While Project Elephant and Project Tiger cover mainly the Tiger Reserves and the Elephant Reserves, the DNPS applies to the remaining 560 (nearly) PAs not covered under these two projects. The range of activities proposed to be supported under the new scheme PWOPA is also similar to the other PA-based schemes, with the exception of the additional specific provision for the relocation of villages. Relocation of villages to strengthen corridors is provided under Project Elephant but has been rarely implemented.

The following important conclusions emerge from a review of these schemes so far:

2.1.1 Utilization of Funds by States

- a) The overall utilization of resources in the Tenth Plan has been excellent as Rs. 208.1 crore has already been spent out of a total allocation of Rs. 228.5 crores, while data for remaining part of the current year is yet to come.
- b) Utilisation of funds for relocation of villages (an activity of the erstwhile BOSTD) has gone down in the Tenth Plan to Rs 10.5 crores from the Ninth Plan expenditure of Rs 14.4 crores, indicating that the drive to relocate villages has lost momentum, perhaps as a result of the merging of the scheme with other larger schemes. Similarly, expenditure under Ecodevelopment has gone down to Rs 22.5 crores in the Tenth plan from the Ninth Plan expenditure of Rs 54.0 crores. This shows a serious decline in our use of Ecodevelopment as a conflict mitigation process.
- c) As far as the new scheme the PWOPA is concerned, it appears to be very well conceived and will help in augmenting the protection

resources of the units managing the forests outside PAs. This scheme also contains a checklist of items that can be financed through this scheme. As no checklist can ever be exhaustive, there should be a generic provision that anything relevant to the objectives of the scheme, mentioned in the checklist or not, can be financed through this scheme. The same must apply to other schemes as well. This scheme can also support conservation by communities outside of Community Reserves and other PAs.

- d) Activities like BOSTD (beneficiary oriented scheme for tribal development), which provide funds based on certain norms prescribed by the Ministry, have become quite inflexible as inter-component adjustment is not allowed. It may be more practical to let the States develop their own norms for using the money allotted by the GoI based on their norms. This is important because of the usual variations in the cost of various elements of the scheme from State to State.

2.1.2 Devolution of Funds to the Field

Although the utilization of funds in the Tenth Plan period has been quite satisfactory, the process of allocation of funds to the field is far from satisfactory. There are delays in the submission of Annual Plan of Operations (APO) by the States to GoI which then takes several months to decide how much money should go to which PA. The MoEF releases the funds in two instalments; the second instalment is released only after the Utilization Certificate regarding the first instalment is received and this is often delayed. Although the funds released by the GoI should automatically be available to the PA management for use in case a corresponding provision in the state budget is available, the finance departments of many States further process these releases at their level and cause inordinate delays in making the GoI funds available to the field officers. Many States use the GoI grants for purposes other than those for which these are meant. Due to the delay in the release and availability of funds, the

grants are rarely fully used within the financial year. The unspent balance again goes through the same process of GoI and State level approvals, perpetuating the vicious cycle. The second instalment nearly always remains unspent during the year in which it is released as the release always comes in the month of March. This state of affairs has to be seriously addressed and rectified by the GoI.

2.1.3 Development of National Parks and Sanctuaries

The centrally-sponsored scheme "Development of National Parks and Sanctuaries" came into existence soon after the enactment of the Wildlife (Protection) Act, 1972, recognizing that protection and effective management of habitat is crucial for the conservation of the rich wildlife of the country. Under this scheme, the States were encouraged to set up Protected Areas (National Parks and Wildlife Sanctuaries). Over the years the PA network in the country has expanded to over 600 National Parks and Sanctuaries (96 National Parks and 509 Wildlife Sanctuaries) spread over most biomes and encompassing the habitats of a large number of flagship, threatened and endangered wildlife species.

The major activities taken up by States under this scheme are the following:

- a) Habitat improvement for wildlife species through augmentation of water supply, habitat manipulation and preservation through plantations of trees and fodder species, fire protection, prevention of erosion and denudation, removal of unwanted species of flora, and flood protection.
- b) Protection of wildlife, including measures to check poaching and improve vigilance, boundary demarcation, provision of wireless and other equipment for improved communication. Provision of rewards to informers for the control of poaching and illegal trade in wildlife, check posts, and watchtowers. Legal support for defending court cases.

- c) Acquisition of land in the interest of wildlife reserves, compensation for shifting of human beings and cattle having rights in sanctuaries, and preparation of Management Plan Units. Also rehabilitation of the oustees from the sanctuaries in an appropriate manner so that not only their standard of living is raised but also their socio-economic conditions.
- d) Veterinary facilities for the health and care of wild animals, and for controlling diseases like rinderpest, foot-and-mouth, anthrax, etc.
- e) Research, training and educational activities, including setting up visitor information/interpretation system and facilities. Training of staff, volunteers and village level workers in eco-development and related activities/techniques.
- f) Census of wildlife in protected areas by ground surveys, enumeration/survey and status of wild animals.
- g) Construction works of roads and buildings for patrolling, supervision and accommodation of staff, hostel accommodation for the wards of staff concerned with the development and management of wildlife services to be located close to the sanctuary limits etc.
- h) Compensation for depredation by wild animals. Insurance of life, crops and property against animal depredation. The compensation to the Kith and Kin of the persons killed by wildlife inside the protected area as well as in the fringe areas, say up to 5 km of the boundary of the park or sanctuary.
- i) Ecodevelopment activities such as providing safe drinking water. Fixing of electrical or solar street lights. Supply of improved Chullahs, LPG, Solar cookers and Gobar gas plants.

The group notes that many of the Protected Areas declared are merely on paper with little infrastructure or no scientific management plan. This will need to be rectified during the Eleventh Plan.

2.1.4 Project Tiger (now converted into National Tiger Conservation Authority)

Project Tiger was launched in April 1973 with the objective “to ensure maintenance of a viable population of tigers in India for scientific, economic, aesthetic, cultural and ecological values, and to preserve for all times, areas of biological importance as a national heritage for the benefit, education and enjoyment of the people.” There are presently 28 Tiger Reserves covering an area of 37,761 km² in 17 states. Approval for the creation of 8 new Tiger reserves has been accorded in principle.

During the Tenth Plan period, 100% central assistance was made available to states for expenditure on all non-recurring items. For recurring items, the central assistance is restricted to 50% of the expenditure, while the matching grant is provided by the States.

The main activities/field inputs under Project Tiger has been strengthening of protection of tiger and its prey, creating basic infrastructure for management, habitat development to increase prey species (including augmentation of water resources, ameliorative measures for habitat restoration), ecodevelopment and village relocation, use of modern technology in crime detection, establishment of a computer database in GIS domain on Tiger Reserves and tiger populations and distribution, census of tiger populations, ecotourism, compensation to villagers for human deaths and livestock depredation by carnivores, veterinary facilities, and staff welfare measures and replacement of vehicles for better staff mobility.

Project Tiger has now been converted into a statutory authority (National Tiger Conservation Authority) by providing enabling provisions in the Wild Life (Protection) Act, 1972, through an amendment in 2006.

2.1.5 Project Elephant

Project Elephant presently covers 25 Elephant Reserves in 14 States spread over 61,200 km² of National Parks/Sanctuaries and areas used by elephant outside. Total allocation under this

scheme during the Tenth Plan was Rs 60.0 crores out of which Rs 47.7 crores have been spent so far during the first four years.

The activities taken up by the States under Project Elephant have been mainly the following:

- a) Strengthening protection against poaching of elephants for ivory.
- b) Measures to lessen crop damage by elephants through electric fences and trenches.
- c) Provide *ex gratia* relief for farmers whose crops have been damaged by elephants, or *ex gratia* payment to kin of persons killed by elephants.
- d) Provision of water sources for elephants through construction of check dams.
- e) Habitat "improvement" or "enrichment" through planting fodder species of elephants.

The group observes that one of the major aims of Project Elephant was the long-term conservation of viable elephant populations in the larger landscapes through strengthening or creation of corridors. Not enough attention has been paid by the States to creating long-term assets to ensure the survival of elephants and reduce conflicts. On the other hand, much of the activity has been short-term responses to problem situations such as conflict. The group also recognizes that the wild elephant population of the country has increased over the past decade, primarily as a result of the cessation of capturing elephant groups. As a result, elephants are also increasing their range by dispersing into new areas (into States such as Maharashtra, Madhya Pradesh, Chhatisgarh, Haryana and Himachal Pradesh) and this situation has to be effectively managed to avoid conflict with people. Inadequate attention has also been paid to the management of the large population of captive elephants in the country, an issue that need more attention especially in the light of our new consciousness of the welfare of a large, intelligent animal that has shared a close relationship with people for several thousand years.

2.1.6 Rationalization of PA boundaries, Final Notification and Settlement of Rights

Many of the National Parks and Wildlife Sanctuaries have been established without any objective criteria or taking into account the ground realities in terms of human settlements. The result is that some of the PAs have dozens of human settlements and thousands of people in enclaves within the PA boundary. The recent curbs (by the Hon'ble Supreme Court CEC) on the rights of people residing within these settlements have created a conflict situation between the people and the government. In other cases, the PA boundaries have not followed scientific criteria but merely used the then existing administrative boundaries. Thus the demarcated boundaries of these PA are not ecologically viable.

Rationalization of the boundaries of some of our PAs will contribute greatly to reducing tensions and conflict between local people and authorities, and promote the conservation of our PAs.

2.1.7 Community Reserves and Conservation Reserves

Following the amendment of the Wildlife (Protection) Act 2003, two new categories of PAs have come into effect – Community Reserves and Conservation Reserves. Community reserves are entirely based upon efforts of the local people on privately-owned lands which require financial and technical assistance for their future management. The Conservation Reserves which are on government land, but do not require acquisition of rights, nor the curtailment of activities, as envisaged in NPs and WLS, are perhaps the most appropriate strategy for connecting Protected Areas by providing corridors. These two categories of PAs have received no funding as there is no provision for the same.

3. Recommendations for the Eleventh Plan

In view of the review of the existing schemes and thrust areas identified for the next plan discussed above, the sub-group makes the following recommendations for the Eleventh Plan:

Existing Schemes

The existing schemes in the wildlife sector are quite comprehensive but lack clear emphasis on critical areas identified above. Therefore, the sub group recommends these schemes should be continued in the next plan but either dedicated funds for the following items should be provided or separate schemes be created for supporting them:

3.1 Development of National Parks and Sanctuaries

- 3.1.1** It is suggested that the nomenclature of the scheme be changed to reflect the additional categories of PAs that have been included in the WPA - Community and Conservation Reserves. The scheme should thus be referred to as "**Conservation of Protected Areas**" instead of the current nomenclature. Requisite changes will also need to be made to its mode of functioning in order to support Community and Conservation Reserves.
- 3.1.2** Special emphasis should be laid on PAs in the Andaman and Nicobar Islands that have not only strategic importance to the country but are also extremely rich in marine diversity and harbour many endemic and endangered species of flora and fauna. A certain percentage of funds need to be made available for such PAs including infrastructure for marine protection, capacity building on coastal and marine conservation issues. The Wildlife Institute of India has devised specific proposals on prioritisation and support for PAs in A&N that should form the basis of this allocation.
- 3.1.3** The settlement of rights process as it currently stands, is characterised by the absence of any guidelines on how the settlement should be carried out. This creates considerable complications for the implementing agency on the ground as well as opens up the possibility of inadequate

settlement. The scheme should involve, firstly, the framing of such guidelines through an open and participatory process, and secondly, independent monitoring to assess whether States are following these guidelines.

- 3.1.4** The scheme should also facilitate establishment of appropriate institutional bodies and forums for dialogue and decision-making among local communities and the Forest Department. An immediate measure that could be linked as a condition before any central disbursement takes place under this scheme, is the establishment of “Sanctuary Advisory Committees” as required by the Wildlife Act. It appears that no PA has taken this step, though the Act’s provisions on this are four years old. Eventually, however, sanctuary and national park management committees in which local people are represented in not only an advisory capacity but in a decision-making one (in the form of Joint Protected Area Monitoring along the lines of Joint Forest Management), need to be established; the scheme should mandate a review of the Wildlife Act to enable this to happen, if it is felt that the Act does not currently allow for it.
- 3.1.5** The need for sound and comprehensive ecological research feeding into management practices of PAs cannot be overemphasised. Enhanced allocations in this scheme must support applied research that facilitates conservation decision-making.
- 3.1.6** Subsidies for crop protection should be included in addition to compensation being paid for crop damage as a mechanism of reducing conflict.
- 3.1.7** The scheme needs to support specific activities for mainstreaming conservation in the plans and activities of line departments and other Government Agencies.
- 3.1.8** A focus on ecodevelopment should be revived in order to reduce the pressures of people on the PAs.
- 3.1.9** Incorporate assistance for the preparation of Species Recovery Plans in the case of PAs that harbour endangered and threatened species.

3.2 Rationalization of PA boundaries, Final Notification and Settlement of Rights

MoEF has set up a committee to examine the present PA boundaries and make recommendations for rationalization in consultation with the State governments. By this exercise a large number of human settlements along the periphery of the PAs would be excluded and the boundaries redrawn to reflect the ground realities. In lieu, other larger, trouble-free areas would be added to the PA system. There may also be some relocation of villages within PAs in order to rationalize the boundaries effectively. In keeping with the Supreme Court directives, after undertaking rationalization of the PA boundary, those rights that need to be acquired should be acquired, and those rights in sanctuaries that can be allowed to be exercised keeping the long-term conservation of the sanctuary in view, should be allowed to continue as per the provisions of the Wildlife Protection Act. Further, settling rights in accordance with a transparent and participatory process would go a long way in mitigating people-park conflicts.

Funds will be needed for redrawing and marking boundaries, relocation of villages (*under a separate scheme: see below*), and strengthening the protection of the redesigned PA.

Proposed outlay: Rs 10 crores

3.3 National Tiger Conservation Authority

3.3.1 Background

3.3.1.1 "Project Tiger" was launched in April, 1973 with the objective "to ensure maintenance of a viable population of Tigers in India for scientific, economic, aesthetic, cultural and ecological values, and to preserve for all times, areas of biological importance as a national heritage for the benefit, education and enjoyment of the people".

3.3.1.2 The Project has been successfully implemented, and at present there are **28 Tiger Reserves in 17 states**, covering an area of 37761 km². Apart from above 'in principle' approval for creation of eight new Tiger Reserves has been

accorded. The selection of reserves was guided by the need to conserve unique ecosystem/habitat types across the geographic distribution of tigers in the country.

3.3.1.3 Project Tiger is an ongoing Centrally Sponsored Scheme, which is continued, in the Tenth Five Year Plan. Conservation of endangered species and their habitat, strengthening and enhancing the Protected Area Network, control of poaching, monitoring, research and ensuring people's participation in Wildlife Conservation have been accorded high priority in the National Wildlife Action Plan and the Wildlife Conservation strategy, 2002.

3.3.1.4 During present plan period, 100% Central Assistance is being made available to States for expenditure on all non-recurring items; for recurring items, the Central Assistance is restricted to 50% of the expenditure, while the matching grant is provided by the Project States. The activities/field inputs under Project Tiger, *interalia*, include: strengthening of protection, creating basic infrastructure for management, habitat development, augmenting water resources, compensatory ameliorative measures for habitat restoration, eco-development, village relocation, use of Information Technology in crime detection, establishment of a digitized database in Tiger Reserves having collaborative linkage with Project Tiger Directorate in the GIS domain, monitoring and evaluation of tiger reserves, monitoring of habitat status, carrying out All India Estimation of Tigers, Co-predators and Prey animals in the GIS domain with the state of art technology, monitoring of tiger populations in various tiger range states, fostering ecotourism activities in Tiger Reserves, creation / deployment of Special Strike Force for patrolling, providing compensation to villagers for human deaths/livestock depredation by carnivores in tiger reserves, staff welfare measures, replacement and purchase of new vehicles for existing and new Tiger Reserves to ensure staff mobility, providing 'Project Allowance' to all categories of staff working in Tiger Reserves, establishment of veterinary facility, and fostering research / research projects, relating to tiger conservation.

- 3.3.1.5** The Govt. of India had launched "Project Tiger" to promote conservation of the tiger, since the significance of its conservation has ramifications beyond State boundaries. Management of forests and wildlife is primarily the responsibility of concerned States. The field implementation of the project, protection and management in the designated reserves is done by the project States, who also provide the matching grant to recurring items of expenditure, deploy field staff/officers, and give their salaries. The Project Tiger Directorate of the Ministry of Environment and Forests was mandated with the task of providing technical guidance and funding support.
- 3.3.1.6** The Tiger Reserves are faced with ecological disturbances and various other problems. Fragmentation of habitats occur owing to overuse of forest habitats, apart from conflicting land uses leading to loss of habitat. There are also in some cases, significant village population with large number of cattle, which graze in the forests, leading to ecological degradation, apart from major sources of regular or intermittent disturbance, such as temples and commercial entities such as tea estates. This also leads to man-animal conflicts, resulting in tiger and prey mortality.
- 3.3.1.7** Several constraints affect field implementation of the project, viz. delayed release of Central Assistance given to the States for Field Units, staff vacancies, ageing of field staff, lack of capacity building initiatives, weak enforcement and monitoring of protection work etc. The events in the recent past have highlighted the fact that there is a need in the States for greater commitment and vigilance. The field administration managing the tiger reserves require capacity building and supervision.
- 3.3.1.8** There is also an urgent need to strengthen the system at the Central Government level (Project Tiger Directorate), which has the mandate to oversee and guide tiger conservation in the country. Involvement of Parliament is also required to ensure review and guidance. Likewise, involvement of Chief Ministers of States and strengthening the field administration, supervision of the project and building a participatory base by including interests of local people living in and around tiger reserves are extremely important.

3.3.1.9 Considering the urgency of the situation, Project Tiger has been converted into a Statutory Authority (NTCA) by providing enabling provisions in the Wildlife (Protection) Act, 1972 through an amendment, viz. Wildlife (Protection) Amendment Act, 2006. This forms one of the urgent recommendations of the Tiger Task Force appointed by the Prime Minister. The NTCA would address the ecological as well as administrative concerns for conserving tigers, by providing a statutory basis for protection of tiger reserves, apart from providing strengthened institutional mechanisms for the protection of ecologically sensitive areas and endangered species. The Authority would also ensure enforcing of guidelines for tiger conservation and monitoring compliance of the same, apart from placement of motivated and trained officers having good track record as Field Directors of tiger reserves. It would also facilitate capacity building of officers and staff posted in tiger reserves, apart from a time bound staff development plan.

3.3.1.10 There is an urgent need to launch a rehabilitation and development programme for the denotified tribes and tribes involved in traditional hunting, living around tiger reserves and tiger corridors. The following denotified tribes / communities are involved in traditional hunting of wild animals: *Behelias, Ambalgars, Badaks, Mongias, Bavariyas, Monglias, Boyas, Kaikads, Karwal Nat, Nirshikaris, Picharis, Valayaras, Yenadis, Chakma, Mizo, Bru, Solung* and *Nyishi*. While this list is not exhaustive, around 5,000 such families are required to be taken up under a welfare programme (forming part of NTCA initiatives) during the Plan period. The rehabilitation / welfare package should be evolved in a site specific, consultative manner with livelihood options, to include : wages for such people towards their deployment in foot patrolling for protecting wildlife, providing agricultural land with irrigation, basic health care, housing and related community welfare inputs and basic education facilities. The experience gained in the past for settling denotified tribes by the salvation army is required to be considered dispassionately while structuring the programme.

3.3.1.11 The Wildlife (Protection) Amendment Act, 2006 has come into force with effect from the 4th of September, 2006, and the NTCA has also been constituted on the same date.

3.3.1.12 The item-wise requirement of funds during the Eleventh Five Year Plan for tiger conservation under the NTCA through the tiger reserves in States are at **Annexure-I**.

Proposed outlay: Rs 1071.80 crores

3.4 Project Elephant

3.4.1 Two more Elephant Reserves are planned for the Tenth Five Year Plan period, taking the total area covered to about 70,000 km² of elephant habitats in the country. At the same time the care of over 4000 captive elephants in the country is also added. The group therefore recommends that Project Elephant refocus its activities along the following lines during the Eleventh Plan in order to effectively maximize the long-term conservation and management of this flagship species.

3.4.2 There has to be much greater emphasis on restoration or strengthening of critical corridors for elephant populations. The best documentation available with respect to corridors for any wildlife species in the country is probably for the elephant. Several institutions including the Indian Institute of Science, Bombay Natural History Society, Wildlife Institute of India, Asian Nature Conservation Foundation and Wildlife Trust of India have identified important corridors for elephants (and associated wildlife) in the country, and the scheme now needs a targeted focus on strengthening these corridors. Indeed, a certain proportion of the financial outlay has to be reserved strictly for strengthening corridors such that long-term assets are created for the survival of elephant populations. At the same time this would help bring down the levels of elephant-human conflicts.

3.4.3 Instead of continuing to blindly invest in electric fences and trenches (whose failure rates are extremely high under present conditions), experiments with cheaper, innovative

methods such as use of chemical repellents for conflict reduction need to be incorporated in the scheme. There have been innovative experiments in Africa and at a small scale in Assam as well. The scheme needs to bring these experiences on board and support other such experiments on a site-specific basis. Mechanical barriers such the use of old railway tracks (rolling stock) can also be tried at strategic places to prevent elephants from moving across. Any method to contain elephant-human conflicts should have the full participation of local farmers who are affected. Alternative cropping patterns should be explored.

- 3.4.4** Natural regeneration of vegetation should be promoted instead of resorting to so-called “enrichment to natural habitats” under Project Elephant Reserves as is currently provided for in the scheme.
- 3.4.5** Support to Conservation Reserves, Community Reserves and Community Conserved Areas outside the Project Elephant Reserves should be incorporated into the scheme.
- 3.4.6** In the Tenth Plan no separate allocation was made for upkeep of captive elephants. It is estimated that about 4000 elephants are in captivity in India. The majority (i.e., about 2700) are under the care of private individuals, including temples. There is a strong need to improve their welfare by imparting training to mahout and elephants, improving nutrition and veterinary care, and improving housing for elephants.
- 3.4.7** Perspective Plans for long-term conservation of each Elephant Reserve (or Elephant Range) have to prepared and their prescriptions adhered to by the states when taking up activities under Project Elephant.

The scheme needs to support specific activities for mainstreaming conservation in the plans and activities of line departments and other Government Agencies.

Proposed outlay: Rs 150 crores.

NEW SCHEMES (In the Pipeline and Newly Suggested)

The group strongly supports the MoEF's initiative to launch the new scheme, titled '**Protection of Wildlife Outside Protected Areas**' but is of the opinion that the allocation proposed by the MoEF under this scheme (Rs.60 crores in the Tenth Plan) is too low for the Eleventh Plan in the context of the estimated requirements. The group makes recommendations for a number of other thrust areas that can either be supported under the existing or proposed schemes or as separate schemes in order to maintain their importance.

3.5 Protection of Wildlife outside Protected Areas (see Annexure-II)

3.5.1 Large and significant numbers of wildlife populations, including flagship species and endangered or threatened species, occur outside the formal PA system, including in government-controlled Reserved Forests, Revenue Forests and Lands, Village Forests and Lands, Private Forests and Lands, and Community Areas. Such lands also act as corridors for long ranging wildlife species such as tiger and elephant moving between Protected Areas. Wildlife often suffer high mortality in the non-PA areas and thus need better protection. A scheme for the protection of wildlife outside PAs has already been approved in the Tenth Plan, but this needs to be properly oriented during the Eleventh Plan to achieve the broader goals of maintaining landscape integrity and viable populations of wildlife, as well as reduce human-wildlife conflicts. Annexure-II provides a fuller account of this scheme.

Proposed outlay: Rs 117.5 crores.

3.5.2 Recognising that there are several community initiated and driven conservation programmes (including in Tiger and Elephant habitats), it is proposed that budgetary support may be made available to such initiatives through existing schemes. The MoEF has commissioned a directory of CCAs and an initial prioritisation from this may be used for providing funding support to CCAs that appear to be conserving critically threatened wildlife.

Such CCAs exist in a wide spectrum of legal regimes ranging from government owned lands (both forest department as well as revenue department owned) as well as private owned lands. Such CCAs may not necessarily be officially notified but should still be eligible for financial support as an incentive for community-led conservation practices. Most critically, there are several CCAs that are in grassland, montane, coastal and freshwater ecosystems. Support to such CCAs will ensure coverage to such relatively neglected ecosystems and taking the focus of conservation attention beyond forests.

3.6 Relocation of Villages from Protected Areas and Critical Wildlife Corridors

3.6.1 The group has considered this subject in light of the above issues relating to rationalization of boundaries of our PAs and protection of wildlife outside PAs, the legal requirement of removing habitations from NPs (as per Supreme Court directions in WP (C) No. 337/1995), the sufferings of many villagers from wildlife depredation and lack of overall development, as well as recognising that on ecological grounds that landscape integrity has to be maintained and certain natural areas have to be kept free of human use and disturbance.

3.6.2 The group thus recommends that the process of deciding areas from which relocation is to be carried out on ecological grounds, framing the R&R package and process and monitoring may follow the provisions as laid out in the recent amendments to the WLPA in 2006. It is also suggested that these provisions should be in line with the draft National Rehabilitation Policy. Salient features of both these combined with good practices of socially just rehabilitation are enumerated below.

- a) While clearly stating that all relocation will be voluntary, the scheme should have guidelines on how voluntariness is to be defined. Based on this, the scheme must support an independent study on whether the relocation is truly voluntary. The

scheme should also include the preparation of a set of guidelines on relocation that should contain at least the following:

- b) A process by which the justification for relocation is clearly assessed and spelt out. This should not be in vague terms such as “for creating inviolate spaces”, but should be justified in ecological terms for particular species and ecosystems. At the same time, the desire of people to move out because of hardships and wildlife depredation must also be taken into account.
- c) A process by which consultations are carried out with the relevant communities, including conveying the justification for proposed relocation, getting their reactions to this, presenting to them the full proposal including details of rehabilitation, obtaining the consent of the full village (and not only of panchayat heads or other representatives), and so on.
- d) At each relocation site, an independent baseline survey of existing livelihoods must be carried out, and the R&R package should be calculated as one that will help people to recreate this level of income/livelihood at the new site. While, it may not be possible to keep the relocation package entirely open-ended, there must be a formal commitment on the part of the government to garner additional resources from other schemes to make up for the balance amount over and above the allocation made under this scheme.
- e) The scheme must ensure that critical facilities are in place at the relocation sites before people are moved there, including adequate land/water and access. Inter-departmental collaboration for convergence of schemes to reinstate livelihood of the relocated people is also important.
- f) Mandatory training of government (forest department) staff involved in R&R at recognized training institutions – for instance, the Diploma Course on R&R organized by IGNOU, New Delhi – is needed.

- g) Involvement of specialized agencies with expertise in community mobilization, agriculture development, natural resource management, livelihood promotion, enterprise development and other related areas must be ensured prior to relocation. Work with the community needs to begin much before actual resettlement takes place, to ensure smooth transition in livelihood at the new site. A budgetary provision for an independent oversight agency, which can assess and monitor the consultation processes, monitor and evaluate the relocation itself, and provide critical guidance to the authorities and the concerned villagers would go a long way in ensuring not only effective R&R but will also considerably ease the work of the implementing agency i.e. the forest department.
- h) The relocated people must be supported for at least 4 to 5 years after resettlement through training and capacity-building inputs for rebuilding and sustaining new livelihoods. Loss of livelihood and income from NTFP collection must be compensated through alternative income generating options, for instance micro-enterprises, dairy, poultry and petty trade.
- i) Apart from funding the relocation of villages per se, the scheme should provide resources for carrying out the mandatory ecological and socio-economic studies.
- j) The norms under this scheme must also be revised, as recommended by the Tiger Task Force, to at least Rs. 2.50 lac per family, from the existing Rs. 1.0 lac per family, with flexibility in intercomponent reappropriation to facilitate site-specific variations. This scheme must also provide for payment of compensation for the property to be acquired where the person owns property more than what the relocation package provides for, or where a person does not like the relocation site or the relocation package.

Proposed Outlay: Rs. 250 crores.

3.7 Ecodevelopment in and around Protected Areas

Ecodevelopment is recognized as being important not only for generating income among villagers who presently share the habitats of wildlife and whose livelihoods are affected by conservation laws, but also help reduce human pressures on wildlife habitats to ensure better survival of threatened and endangered species. The acid test of any eco-development activity should be to what extent the biotic pressure has been actually reduced within the PAs. Other programmes of GoI such as National Rural Area Development Programme, etc. should be integrated with eco-development activities carried out by the forest department in the vicinity of PAs. The district administration should be actively involved in these activities. Ecodevelopment would be a very important component in the maintenance and the acceptance of ecological corridors connecting PAs with each other and with other habitats.

Proposed Outlay: Rs. 300 crores.

3.8 Mitigation of Human-Wildlife conflicts

Crop Protection Measures: The group recognises the fact that damage to agriculture by wild animals affects a very large rural population who happens to be among the poorest sections of our society. While the whole country or the world at large enjoys the benefits of conservation in the form of ecological security, these poor people bear the cost of the national conservation policies. A large number of wild animals get killed or seriously injured as a result of lethal crop-protection measures employed by desperate farmers. The existing schemes do provide for payment of *ex gratia* for crop losses, but the provision lacks clarity and emphasis. The group recommends that along with the provision of such relief, a provision must be made to support non-lethal crop protection initiatives of individuals or groups of farmers in villages more prone to high crop damage. This can be in the form of subsidies for appropriate fences (power fences, chain link fences etc.) or other traditional crop protection measures, to enable people to cope with the depredations more effectively.

Proposed Outlay: Rs. 100 crores.

Translocation of wildlife from high conflict areas

A mechanism of reducing and perhaps even eliminating conflict between wildlife and humans is to selectively remove wildlife from high intensity conflict areas. However, this decision has to be made on the basis of scientific studies and not subjective judgments about wildlife having "exceeded the carrying capacity of the habitat". Relocation also has to be a considered decision based on knowledge of the biology of the species as otherwise this has the potential to cause more serious conflict elsewhere (there are many examples of this). Such operations (which are a routine part of wildlife management in several countries) where needed may be supported during the Eleventh Plan period. The capacity to capture and translocate wildlife must be developed within the wildlife wing of the Forest Departments. Wildlife Institute of India can help build this capacity.

Proposed outlay: Rs 10 crores

3.9 Alternative Employment for Traditional Hunting Communities

There are several communities who are traditionally dependent on the hunting of wild birds and animals as a means of livelihood. Poaching attributed to traditional nomadic hunting communities, spread all over the country under various names, is one of the most important reasons for the recent decline of wildlife. As long as these communities are not weaned away from their deadly trade, conservation is unlikely to succeed. In view of their severe marginalisation and inability to devise alternate livelihood options, the group recommends special emphasis on such communities. Financial assistance could be made available to government agencies and NGOs to run programmes that facilitate formulation of livelihood options that build upon the traditional skills of such communities and yet do not involve removal of wildlife. This can be done only if dedicated support is available from the central government for this purpose.

Proposed Outlay: Rs. 50 crores.

3.10 Saving Critically Endangered Species and Habitats

- 3.10.1** With mounting demographic pressures and consequent reduction of habitats and hunting, a number of species both floral and faunal is currently facing the threat of extinction. The subgroup advocates a two-fold strategy to counteract these threats.
- 3.10.2** The formulation of recovery plans for 10 identified most-critically endangered species of fauna and 10 of flora. This would involve the determination of the current status of the distribution of species and the plan of conservation action on a year-wise basis for the next five years. In certain cases, *ex situ* conservation may also have to be employed to supplement *in situ* conservation. This would also cover the maintenance of genetic purity of species such as the wild buffalo. The scheme would involve special funding for the remaining population of these identified species wherever found and continuous monitoring of the status and the impact of the inputs. If the species show adequate recovery in five years or later, a re-evaluation could take this off the list. The National Forest Commission report has also identified ten species of fauna in this context, but identification of 10 critical floral species still remains.
- 3.10.3** Apart from the species-oriented recovery plans mentioned above, it has been found that a project approach with a flagship species at the apex and covering the prey base and habitat has had a very salutary impact in the conservation of ecotypes and indeed of biomes. This approach would be particularly useful in landscapes and biomes that are currently not adequately covered or protected under our PA system. A project approach therefore on the lines of PT and PE, would be extremely useful. It is therefore advocated that 3 new projects – snow Leopard for Himalayan fauna and flora, bustard for diverse grasslands and species and dolphin for the river ecosystem.
- 3.10.4** Since it may not be possible to initiate special separate schemes for each of these species/habitats, it is proposed that an umbrella scheme could be initiated to cover (a) recovery plan for 10 species each of flora and fauna (b) launch special projects for the conservation of three flagship

species and habitats/prey base (as detailed below). This special endeavour to save critically endangered species cannot be covered under the Conservation of Protected Areas as a major part of their population occurs outside of the PA system. It may also not be possible to create new protected areas for them in view of the opposition to such moves from local people who may face hardships as a result. Such projects need to be more innovative, based on the principle of co-existence with human use of their habitats. Following projects are proposed under this category:

- a) Project Snow Leopard and the high-altitude Himalayas:** The Snow Leopard, a highly endangered species, must be used as a flagship for the conservation of high-altitude wilderness in the Himalayas. This species suffers from intense conflict with rural communities, habitat degradation and depletion of natural prey base. An effective programme has to be launched across the entire Himalayan landscape to mitigate these problems and save this species from extinction as otherwise the ecology of this regions is likely to suffer irreparable damage. **Proposed Outlay: Rs. 30 crores.**
- b) Project Bustards and Grasslands:** The bustards (including the floricans) are an extremely endangered group of birds dependent on grassland ecosystems. These species have depleted, mainly due to the degradation of grasslands. The revival of these species will depend upon the maintenance of grasslands with minimal disturbance from human activities. A significant proportion of the grasslands are privately-owned where the 'protected area' approach to conservation is unlikely to work. Therefore, it is proposed that an innovative approach involving, but not limited to, incentives for private owners of grasslands to retain their properties as healthy grasslands may be launched. **Proposed Outlay: Rs. 10 Crores.**
- c) Project Dolphin and River Systems:** The Gangetic or River Dolphin (*Platinista gangetica*) is one of the most endangered species found only in the Ganges, Brahmaputra and their tributaries, like the gharial. No attention has so far been paid to its conservation,

unlike the other similarly endangered species such as the tiger, lion, elephant etc. The emphasis on crocodiles, as the flagship species of the river systems has helped this species to some extent but the waning of efforts for the conservation of these species have again resulted in their decline where the species had recovered earlier. Therefore, there is an urgent need to start a project aimed at conserving the biodiversity of our river systems. Such a project may reemphasise captive breeding of the crocodiles, regulation of sustainable fishery practices, regulation and rationalisation of sand mining activities in river beds, apart from the usual Ecodevelopment approach to conservation. **Proposed Outlay: Rs. 10 Crores.**

3.11 Wildlife Crime Bureau

In view of the increasing threat posed by organised wildlife trade, the MoEF via a recent amendment to the WPA has created a dedicated Wildlife Crime Bureau with the following objectives:

- a) Reorganise PA/forest staff into viable units (with adequate arms) and other equipments to combat poaching and illicit trade. Improve communication facilities.
- b) Institute bravery awards and meritorious service awards.
- c) Set up Special Courts in districts (with forests) to help in effective disposal of wildlife related cases. Have public prosecutors, especially assigned for the purpose.
- d) Provide 'secret funds' to assist State Governments for intelligence gathering in illegal trade and seizures.
- e) Outreach enforcement agencies – police, paramilitary forces, customs, coast-guards, intelligence agencies through training programmes.
- f) Improve and strengthen forensic labs at the WII. Set up at least two regional forensic labs in addition (Central India and NE).
- g) Set up special vigilance at exist points of illegal trade.

Considering the extremely serious threat that wildlife crime poses, the group recommends dedicated resources to the Wildlife Crime Bureau.

Proposed outlay: Rs 200 crores

3.12 Research and Training

The group recognises the crucial importance of research in documenting biodiversity, understanding ecological processes and contributing to the management of our wildlife areas. Research should provide the scientific basis of management plans of our Protected Areas and wildlife habitats outside the PA system. Although we have made some strides in research on wildlife species and habitats, carried out mainly by a few institutions in the country, we still have a long way to go in comprehensive understanding. MoEF will have to proactively commission research studies on topics that will contribute directly to management decisions. Apart from the Wildlife Institute of India, many other institutions and universities must be involved in these studies. At the same time, training and capacity building of personnel at all level, from front-line to senior levels, involved in wildlife conservation must be given a new thrust. The group thus recommends that support to scientific studies aimed both at basic ecological understanding as well as short and long term management needs should be made available to institutions working in these areas.

While research on a variety of subject relating to soil, climate, flora and fauna of our wildlife areas have to be undertaken at the level of species, communities and ecosystems, the group suggests that the following areas need special attention during the Eleventh Plan.

- a) Ecology and control of Invasive Species of Plants and Animals.
- b) Grassland ecology and restoration.
- c) Fire ecology and management.
- d) Impacts of future climate change on biodiversity and possible adaptations.

Forest/wildlife staff at all levels should be trained on wildlife and habitat management, census techniques, survey and mapping, and kept abreast of modern advances in wildlife ecology.

Proposed Outlay: Rs 50 crores

3.13 Effective Mechanism for Devolution of Funds to the States

The following steps are recommended for a smooth and efficient release by the Government of India, and effective utilization of funds by the states:

- a) GoI must release the funds to the States by the end of May each year. Even the Supreme Court has expressed its grave concern over the delay in the release of funds.
- b) All the funds must be released in one instalment, rather than in two instalments.
- c) The expected availability of funds for each PA or other entity must be indicated before the end of the previous financial year, and the final decision, of what to spend the available funds on, should rest with the States and the PA managers, rather than with the GOI.
- d) Any unspent funds from the previous year must be automatically available to the field officers without having to wait for revalidation, if the item of expenditure remains the same.
- e) Once the funds are released by the GOI, the same must be made available to the field officers for use immediately, subject to the competence of the departmental hierarchy to sanction expenditure, availability of adequate provision in the state budget. Only in the case of restricted items, such as purchase of vehicles, should the specific sanction of the State government be required. MoEF must discuss the issue of streamlining these procedures with the states at the earliest.
- f) The States should also ensure that Annual Plan of Operation should be sent to GoI at the beginning of the year, and also meet their obligations in reporting physical achievements and providing financial utilization certificates in a timely manner.

3.14 Mainstreaming Conservation in the plans and activities of Line Departments and other Government Agencies

Recognising that wildlife conservation is unviable if conservation activities have a sectoral focus, it is proposed that existing schemes (DNPS, NTCA and PE) also need to focus on re-orienting the ecosystem management activities of other government ministries and departments, such as the territorial divisions of the Forest Department, Irrigation agencies, Animal Husbandry and Agriculture agencies, the Armed Forces, and so on. These agencies deal with natural ecosystems of all kinds, especially those under their jurisdiction. Yet wildlife or biodiversity conservation is not explicitly and clearly built into their mandates. The schemes could fund the creation of manuals and methodologies on how such integration can take place in the activities of these agencies, so that conservation begins to get focused on across the landscape rather than only in isolated protected sites. In the case of the scheme National Tiger Conservation Authority”, this could happen under the budget component “Mainstreaming livelihood and wildlife concerns in forests outside tiger reserves and fostering corridor conservation”. It should also be kept in mind that 40% of PAs are on non forest land. In this context the integration of conservation concerns in line agencies becomes all the more critical.

Proposed Outlay: Rs 10 crores

3.15 Creation of a Cell within the Ministry of Environment and Forests to monitor the Implementation of Various Conservation Schemes

A strong need is felt for effective follow up of three important documents (National Forest Commission Report, National Wildlife Action Plan, and the Report of the Tiger Task Force) that the MoEF has commissioned in the recent past. Effective monitoring of the implementation of their recommendations will contribute significantly to improved conservation in the country. The absence of a dedicated monitoring mechanism to track implementation progress appears to be drawback in this regard. We therefore advocate the creation of a

cell within the MoEF for the monitoring of these recommendations.

This cell will also:

- ◆ Assist States/UTs in the preparation and part funding of approved management plans for PAs.
- ◆ Will also ensure mainstreaming of wildlife conservation concerns in the Territorial Division Working Plans.
- ◆ Maintain database of each PA at MoEF under- management status, protection, habitat restoration, diversity indices, conservation of endangered species and indicator species, adequacy of infrastructure, staff and financial resources, socio-economic status of local communities.
- ◆ Keep countrywide database of wildlife trained officers at MoEF/State HQ. Link central assistance in the entire forestry/wildlife sector on compliance records.
- ◆ Monitor capacity building of forest department personnel through support from central funds.

Proposed Outlay: Rs 50 crores

3.16 Central Zoo Authority

3.16.1 Year of commencement of the Scheme

1992

3.16.2 Description of the Scheme and its objectives

3.16.2.1 The World Conservation Union (IUCN) has affirmed that the goal for conservation shall be the maintenance of existing genetic diversity and viable populations of all species in the wild so as to maintain biological interactions, ecological processes and functions. Therefore, conservation managers and decision-makers are required to adopt a realistic and integrated approach to conservation implementation.

3.16.2.2 The threats to biodiversity *in-situ* continue to expand, and species have to survive in increasingly human-modified environments. Threats, which include habitat loss, climate

change, unsustainable use, and invasive and pathogenic organisms, can be difficult to control. The reality of the current situation is that it will not be possible to ensure the survival of an increasing number of threatened species without effectively using a diverse range of complementary conservation approaches and techniques including, for some species, increasing the role and practical use of *ex-situ* techniques.

3.16.2.3 If the decision to bring a species under *ex-situ* management is left until extinction is imminent, it is frequently too late to effectively implement, thus risking permanent loss of the species. *Ex-situ* conservation should therefore be considered as a tool to ensure the survival of the wild population.

3.16.2.4 The Government of India has also been quite sensitive to the declining rate of wild fauna from their natural habitat and the need for utilizing the potential of zoos as a tool for *ex-situ* conservation. However, the success so far has been quite limited due to varied ownership pattern of zoos in India and lack of proper guidelines & standards.

3.16.2.5 It was in this background that the Central Zoo Authority (CZA) was created in February, 1992 under an Act of Parliament (Section 38A of Wild Life (Protection) Act, 1972 as amended in 1991) to control mushrooming of ill-conceived/ ill planned zoos, to monitor and evaluate the existing zoos and to suggest ways and means for the improvement of zoos in the country, so that they can be transformed into potent centres for the *ex-situ* conservation of endangered wild fauna. The main functions assigned to the Authority for achieving the desired goals are stipulated in Section 38C of the said Act. A National Zoo Policy has also been adopted by the Government of India for providing a direction, the present day zoos are required to play.

3.16.2.6 Since improvement of the zoos in respect of animal housing, healthcare and other related activities encompassing *ex-situ* conservation requires significant financial inputs, the Act provides that the Central

Government will provide the Authority financial grants to carry out the functions assigned to it. It was in pursuance of this provision that the Scheme-“Grant –in- Aid was approved by the Planning commission during the year 1991-92 with a meager allocation of Rs. 60.00 lakhs. As the work of the Authority picked up in subsequent years and the need for greater financial inputs was realized to achieve the objectives as enshrined in the National Zoo Policy, the Central Government provided Rs. 1200.00 lakhs, Rs. 4342.00 lakhs and Rs. 8057.20 lakhs for the Eighth, Ninth and Tenth plan period respectively.

3.16.2.2 The directives issued by the EFC have been implemented by the Authority to the best of its ability. The Ministry of Environment & Forests provided grants-in-aid of Rs. 8057.20 lakhs to the CZA during the Tenth Five Year Plan Period. The entire allocation has been utilized (being utilized) by the CZA for furtherance of the objectives assigned to it. The year-wise expenditure position for Tenth Five Year Plan Period is as follows:

(Rs. in lakhs)

Year	Grants-in-aid received during the year	Expenditure
2002-03	1225.20	1217.58
2003-04	1549.00	1550.00
2004-05	1950.00	1952.00
2005-06	1633.00	1639.46
2006-07	1700.00	----

3.16.3 Activities carried out during the Tenth Plan

3.16.3.1 The CZA continued to perform its statutory functions of evaluating and monitoring the Zoos in the country with reference to the norms and standards prescribed under the Recognition of Zoo Rules, 1992.

3.16.3.2 Zoos have been provided financial assistance to the tune of Rs. 3940.00 lakhs during the Tenth Plan Period to enable them to improve animal housing and health care facilities for wild animals as per the standards specified under the Rules.

3.16.3.3 The CZA has also financed creation/ extension of rescue centres for rehabilitation of animals rescued from circuses whose performance has been banned. The CZA is also

providing funds for maintenance of these rescue centres including feeding of the animals kept over there. During Tenth Plan Period Rs. 523.00 lakhs has been utilized for creation of additional facilities and Rs. 764.00 lakhs for the maintenance of the animals in these Rescue Centres.

3.16.3.4 Organizing research activities/ studies for better and scientific management of Zoos as well as for conservation of wildlife is the priority area. The CZA has provided funds to the tune of Rs.530.00 lakhs for different research activities during the Tenth Plan Period.

3.16.3.5 A number of training courses and workshops have been organized for capacity building of the Zoo personnel by the CZA during the Plan Period. The CZA also sponsored one Zoo Director and one Zoo Veterinarian for training in Zoo Management abroad every year. A total of Rs. 804.00 lakhs has been spent on training/ Human Resource Development in Indian Zoo by Central Zoo Authority during Tenth Plan Period.

3.16.3.6 The operational cost of the CZA remained at Rs.249.00 lakhs during the Plan Period, which is only 3.92% of the total budget allocation.

3.16.4 Proposal to be supported during Eleventh Plan Period

Brief descriptions of the activities to be taken up during Eleventh Plan Period are explained as under:

3.16.4.1 Grants-in-Aid to Zoos

The CZA would provide financial assistance to recognized public sector Zoos having adequate land, potential and willingness to improve to develop as modern Zoos. Creation and improvement of animal housing, veterinary facilities, organizing research/ studies and training of Zoo personnel will be funded on 100% basis whereas development of infrastructural works like water distribution network, road/ footpath network, drainage, electricity, sewage disposal network, waste disposal, land scaping, visitor facilities (excluding of commercial use) will be funded on 50:50 basis. Construction of administrative buildings, residential quarters for staff, ticket counters and structures of commercial use will continue to be the sole responsibility of the Zoo

operators. No financial assistance will be provided for creation of new Zoos. However, existing Zoos which are being relocated to new sites shall be provided assistance on the pattern of existing Zoos.

It is, therefore, proposed that Rs. 15000.00 lakhs may be provided under this head of expenditure. Savings made under any other heads shall also be made available for providing assistance under this head.

3.16.4.2 Maintenance of Rescue Centres

The CZA has created seven Rescue Centres for rehabilitation of lions, tigers, leopards, bears and monkeys whose performance has been banned in the Circuses at Chennai (Tamil Nadu), Bangalore (Karnataka), Tirupathi & Visakhapatnam (Andhra Pradesh), Madarihat (West Bengal), Bhopal (Madhya Pradesh) and Jaipur (Rajasthan). In order to maintain these Rescue Centres and to make the expenses on the feed and upkeep (around 500 lions, tigers, leopards, bears etc.), a provision of Rs. 500.00 lakhs per year is proposed during the Eleventh Plan Period. This is committed expenditure. It is hoped that increase in the cost of feed and other expenditure will be compensated by the gradual reduction in number of the animals due to death during the Period. So the total expected expenditure during the Eleventh Five Year Plan Period under this head will be Rs. 2500.00 lakhs.

3.16.4.3 Research

The CZA would continue to fund the research projects on various aspects related to the Zoo Management, like Zoo designing, animal health care & nutrition, breeding biology/ behavioural studies and biotechnological interventions, by involving institutions/ organizations having background in the related fields. The Zoos will also be provided funds on 100% basis in form of small grants for conducting studies/ research at the Zoo level to deal with the local issues.

At present there is no central referral facility for diagnosis of wildlife diseases and for capacity building of veterinary doctors working in Indian zoos. A central referral facility is therefore proposed to be developed for catering to the need in this sector. The Indian Veterinary Research Institute (IVRI), Bareilly (Uttar Pradesh), has been identified for developing as a National Referral Centre(NRC) for specialized services and diagnostic facilities for health care of wild animals in Indian Zoos. The IVRI shall be provided financial grants for creating the NRC on 100% basis. In the event of creation of a Centre for Zoo Science in

National Zoological Park, New Delhi during this plan period, the same shall also be provided necessary funds in project mode for its development and proper use.

In view of the position explained above and keeping in view the possibility of work which can be completed during Eleventh Plan Period, **the total allocation required for research activities in the Eleventh Plan Period will be Rs. 1000.00 lakhs.**

3.16.4.4 Capacity building of zoo personnel and awareness

Trainings of the Zoo personnel/ stakeholders and policymakers will continue to be one of the main activities of the CZA under the Scheme for future scientific management of Zoos in the country. Short-term training courses/ workshops will be organized for the Zoo Directors/ In-charges and Zoo Veterinarians in alternate years. Short-term training programmes for the middle level Zoo personnel will also be organized on annual basis. Trainings for the Zoo keepers and other staff will be organized on annual basis in different regions of the country in local languages. To provide exposure to the Zoo managers, Zoo veterinarians and other officers would be sent for trainings in identified institutions outside India. National/ International Workshops/ Conferences will also be organized on the related issues. Printing of Zoo Yearbook, Compendiums, Bluebooks, Inventory Reports, Theme Based Calendars etc. for guidance and awareness will be done on regular basis. **So, the total expected expenditure during Eleventh Plan Period under the head will be Rs. 1000.00 lakhs.**

3.16.4.5 Operational cost of the CZA

To achieve the objectives assigned to CZA under the Wild Life (Protection) Act, it is imperative to strengthen the existing staff patterns of the Authority. It is mentioned that at the moment there is no sanctioned post of technical/ scientific staff in the CZA. Therefore over and above the existing regular posts in the Authority, it is proposed to create one post of Evaluation & Monitoring Officer in the pay-scale of Rs. 12000-375-16500, one post of Scientific Officer in the pay-scale of Rs. 8000-275-13500, one post of Evaluation & Monitoring Assistant in the pay-scale of Rs. 5500-175-9000 and one post of Technical Assistant in the pay-scale of Rs. 4500-125-7000 in the CZA to carry out its scientific/ technical functions. This has the approval of Central Zoo Authority and the proposal has already been submitted to Ministry of Finance, Government of India after the approval of the Secretary,

Environment & Forests and Internal Finance of the Ministry of Environment & Forests, Government of India.

To ensure that a required minimum contingent of staff is in place in the office of the Central Zoo Authority and also to enable it to discharge its statutory responsibilities and technical functions, it is proposed that over and above the sanctioned regular posts, services of experienced persons shall be continued to be availed by the Authority on short term contracts/ consultancy.

The CZA has not yet acquired an office befitting to the quantum of work of the Authority. Suitable land shall be acquired for construction of the Office building during the plan period.

The breakup of the expenditure required to made the operational cost of the CZA will be as follows:

		(Rs. in lakhs)
1.	Salaries and other payments	300.00
2.	Travel expenses	50.00
3.	Furniture/ Fixture equipment	70.00
4.	Repairs, maintenance, rates & taxes	40.00
5.	Printing, publications and advertisements	40.00
6.	Other Office expenses (incl. construction of office)	500.00
		1000.00

In view of the position explained above, it is proposed that the ongoing Scheme "CZA – Grant-in-Aid" may be continued for Eleventh Plan with a total outlay of Rs. 20500.00 lakhs as per the details provide below:

S. No.	Head of expenditure	Amount (Rs.in lakhs)
1	Grants-in-Aid to Zoos	15000.00
2	Maintenance of Rescue Centres	2500.00
3.	Research	1000.00
4.	Capacity building of zoo personnel and awareness	1000.00
5.	Operational cost of the CZA (includes construction of an office)	1000.00
Total		20500.00

3.16.4 Main components of “CZA Grants-in-Aid Scheme” for Ninth/Tenth Plan Period as approved by the EFC and proposals for Eleventh Plan

Sl. No.	Proposals approved by the EFC for Ninth/ Tenth Plan	Activities proposed for Eleventh Plan
1.	Grant to Zoos The EFC for Central Zoo Authority for Ninth Five Year Plan which was extended to Tenth Five Year Plan approved 100% pattern of funding for improvement of animal housing, upkeep and veterinary care of Zoo animals only. Whereas funds for the development of the infrastructural works approved on 50:50 basis. No funds are provided for development of visitors facilities in Zoos. The Central Zoo Authority will be providing financial assistance only to the existing Zoos and no assistance is being provided for creation of new Zoos.	The same pattern and criteria as approved by the EFC for Ninth / Tenth Plan Period is proposed, except that development of visitor facilities (of non-commercial use only) will also be provided funds on 50:50 basis.
2.	Maintenance of Rescue Centres Establishment of Rescue Centres in the off-display areas of the Zoos for rehabilitation of rescued animals from the field/ Zoos will be funded by Central Zoo Authority on 100% basis whereas maintenance cost including feeding will only be provided to the Rescue Centres created for the rehabilitation of Circus animals whose performance has been banned in the Circuses.	Same pattern.
3.	Research The Central Zoo Authority will provide funds for research projects on various aspects related to Zoo Management to the Institutions/ Organizations having background in the related fields as well as to the Zoos on 100% basis.	Same pattern.
4.	Trainings Trainings to Zoo Personnel/ Stakeholders and Policymakers in India and abroad will continue to be funded by the Central Zoo Authority on 100% basis for future scientific management of Zoos in the country.	Same pattern.
5.	Operational cost of CZA	Land for the construction of Office will be acquired and office building will be constructed during Eleventh Plan Period.

Sl. No.	Proposals approved by the EFC for Ninth/ Tenth Plan	Activities proposed for Eleventh Plan
6.	Creation/ sanction of technical/ scientific staff	
	<p>Two posts of Scientists in the pay-scale of Rs. 12000-16500 and one post of Registrar-cum-Office Superintendent in the pay-scale of Rs. 6500-10500 were approved subject to the approval of Ministry of Finance. It was decided to engage support staff on contract basis subject to the approval of the Administrative Committee of the Central Zoo Authority. (It is added that the posts on regular basis have not yet been created whereas the above-mentioned required staff were continue to be engaged on contract basis.)</p>	<p>It is proposed to create one post of Evaluation & Monitoring Officer in the pay-scale of Rs. 12000-375-16500, one post of Scientific Officer in the pay-scale of Rs. 8000-275-13500, one post of Evaluation & Monitoring Assistance in the pay-scale of Rs. 5500-175-9000 and one post of Technical Assistant in the pay-scale of Rs. 4500-125-7000 in the Central Zoo Authority to carry out its scientific/ technical functions. In exigencies engagement of staff on contract basis shall be continued.</p>
7.	National Zoological Park Scheme	
	<p>National Zoological Park Scheme for all capital works and revenue (plan) was merged with Central Zoo Authority Scheme where Central Zoo Authority was supposed to provide all plan funds to the National Zoological Park during Tenth Five Year Plan Period.</p>	<p>It is proposed that National Zoological Park Scheme (Plan) should be separated from the Central Zoo Authority Scheme. The present set up is creating more problems than it solves. The funds directly be placed at the disposal of the National Zoological Park or Civil Construction Unit (Ministry of Environment & Forests) for different works in the National Zoological Park. The Central Zoo Authority will provide financial assistance to the National Zoological Park on the pattern being followed for other Zoos of the country.</p>

3.17 Wildlife Institute of India

3.17.1 About the Institute

3.17.1.1 Wildlife Institute of India (WII) set up in 1982, has emerged as an eminent regional centre for training and research in the field of wildlife conservation in South Asia and South East Asia. It is an autonomous institute under the Ministry of Environment and Forests. The mission of the Institute is *"To nurture the development of wildlife science and promote its application in conservation, in consonance with the cultural and socio-economic milieu"*. The mandate of the Institute is (i) Build capacity, develop human resources in wildlife; (ii) Develop as a centre of excellence in wildlife science; (iii) Provide consultancy & advisory services to Central and State Governments in matters related to wildlife; (iv) Develop as a regional centre for S Asia & SE Asia for training and research in wildlife conservation; and (v) Develop as a Deemed University in wildlife science.

3.17.1.2 Since its inception, Institute has trained more than 900 field managers through its flagship programmes of 9-months Post-graduate Diploma Course in Wildlife Management and 3-months Certificate Course in Wildlife Management. This includes 113 foreign trainees belonging to 19 countries. About 200 wildlife professionals have been trained by Institute through its M.Sc. Wildlife Science and doctoral programmes. Institute has been actively engaged in undertaking research on different facets of wildlife science across the country and has generated scientific database in the form of research reports (about 115) and technical papers (about 600). WII has also provided about 25 consultancy services to different states of India as well as to other neighbouring countries. Institute has also taken up additional responsibilities assigned by the MoEF for implementation of activities under National Wildlife Action Plan 2002 - 16. Currently, a country wide tiger and prey base estimation programme is underway in WII as per the requirement of Project Tiger Directorate.

3.17.1.3 During Xth five year plan there was an approved outlay of Rs. 50 crores. WII has been able to utilize an amount of Rs. 37.30 crores till 2005-06 for different approved activities of

the Institute. The year-wise break up of the financial outlay under Plan and non-Plan are given in **Table 1**, respectively:

Table 1: Financial outlay, Receipt and Expenditure for Tenth Plan (2002-03 to 2006-07)

S.No.	Year	Allocation	Receipt	Expenditure
1	2002-03	700.00	700.00	751.00
2	2003-04	1262.00	1157.00	420.00
3	2004-05	1050.00	660.00	1088.00
4	2005-06	1000.00	890.00	1140.00
5	2006-07	1000.00	600.00*	560.00
Total		5012.00	4007.00	3959.00

***Rs. 400 lakhs is to be received as III Installment of the Grant-in-aid for 2006-07.**

The mandate of the Institute has three components - namely

- (a) Conducting professional training programmes and courses on wildlife science;
- (b) Carrying out Research on issues relating to wildlife;
- (c) Providing advisory and technical services to Central and State Governments on matters referred to it by them;

During the Tenth Plan period, the physical achievements in these three areas are detailed in **Table 2**:

Table 2: Physical Achievements during Tenth Plan Period

S. No.	Activities	No. of Courses/ Programmes etc	No. of Participants
A)	Training and Capacity Building		
a)	Regular Training Programmes for Forestry and Wildlife Personnel	10	184
b)	Short Courses/ Workshops/ Seminars for Capacity Building of Managers and Frontline Staffs of various agencies	104	4795
c)	M.Sc course in Wildlife Science	3	24
B)	Research	17 (completed)	--
a)	Projects/Programmes	33 (ongoing)	--
b)	Papers/Publication on Research activities	37 (International Peer Reviewed Journals)	--
		43 (National Peer Reviewed Journals)	--
		87 (Technical Reports)	--
C)	Advisory Services to various organizations	11	--

3.17.3 Proposals for Eleventh Five Year Plan

Increasing human induced changes are posing new threats to conservation of wilderness resources today. The forests harboring wild animals are deteriorating in terms of quality and quantity (fragmentation) thereby threatening survival of species particularly mega species like elephants, tigers, rhinos and other large bodied animals. As habitats shrink and populations become increasing isolated, factors like poaching, disease, population structure (sex-ratio) and stochastic events like droughts, fire and floods which once were part of natural processes causing manageable oscillations are now becoming limiting and critical factors. The situation is throwing enormous challenges to managers and policy makers alike. WII, with its sound foundation in wildlife sciences, needs to respond to these emerging challenges adequately by implementing innovative approaches to manage wildlife resources in the country.

The training, research, advisory and advocacy role of WII accordingly needs to be appropriately enhanced to meet these challenges in the Eleventh Five years plan. The new approaches would include developing framework for mainstreaming conservation in development projects and policies, carrying out empirical studies on ecological impacts of developmental projects and human activities, strengthening common property resource management and developing expertise in managing wildlife in isolated, fragmented patches across landscapes. The use of modern tools and technology and development of analytical capabilities are critical ingredients for achieving success in this endeavour. Substantial augmentation in allocation of financial resources is needed in Eleventh Plan, the details of which are provided in **Table 3** with justification \ rationale in the subsequent paras. The broad budget break-up of proposed activities is provided in **Table 3**.

Table 3: Proposed financial outlay for Eleventh Plan (2007-08 to 2011-12) for activities in Wildlife Institute of India

S. No	Activity	Funds (in lakhs)	Justification
1.	Wildlife Training and Academics	1250	See para 3.17.4.1
2.	Research Programme	1500	See para 3.17.4.2
3.	Establishment of National Wildlife Library and Documentation Centre	500	See para 3.17.4.3
4.	Strengthening of Computer & GIS Centre	500	See para 3.17.4.4
5.	Strengthening of Wildlife Forensic Facility	1000	See para 3.17.4.5
6.	Strengthening of Wildlife Research Laboratories	450	See para 3.17.4.6
7.	Establishment Expenses	2000	See para 3.17.4.7
8.	Strengthening of Academic and Other Infrastructure	2200	See para 3.17.4.8

	Total	9400	
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3.17.4 Justification for enhancement of financial allocation in Eleventh Plan period

3.17.4.1 Wildlife Training and Academics

Building capacity to manage wilderness resources through effective training programmes for various target groups and developing human resources through Master degree programme in Wildlife Science are the major mandates of the Institute. In order to rapidly build capacity it is proposed to conduct customized training programme for various target groups (forest and wildlife managers; para military and enforcement agencies; custom and revenue officials etc.) of varying duration at headquarters as well as in field locations in national parks and wildlife sanctuaries.

It is also necessary to sensitize the judiciary, politicians, senior administrators, armed forces about various facets of wildlife conservation through short-term training programmes. Currently, the Institute is offering a Master degree programme in Wildlife Science every alternate year with a limited intake of 10 students. In response to the growing demand for trained manpower it is proposed to offer this course every year; increase the number of seats; diversify this course into an integrated six-year course leading to a doctorate degree and introduce greater flexibility in both curriculum design and delivery of the course. To implement the proposals indicated above in, an enhanced allocation of Rs. 1250 lakhs is proposed.

3.17.4.2 Research Programme

The Institute has recently developed a '*Research Priority Matrix*' based on a landscape approach. A review of research priority has indicated several '*gap*' areas. New thrust areas have also been identified in consultation with the stakeholders. In order to meaningfully address the wildlife research needs of the country, the Institute's research agenda has to be substantially enhanced. There is a need to conduct '*status surveys*' of key species especially those which have become endangered and are involved in wildlife trade. e-Knowledge portals have also to be developed for rapid and effective dissemination of data and information on wild species status, distribution and threats and on the species and the products involved in wildlife trade. Long term research on key species in identified landscapes have to be initiated/ continued using modern tools and technology (remote sensing, GIS,

GPS, satellite telemetry etc). To implement the proposal indicated above, an allocation of Rs. 1500 lakhs has been proposed.

3.17.4.3 National Wildlife Library and Documentation Centre

It is proposed to set up a National Wildlife Library and Documentation Centre in the Eleventh Plan period. This would entail upgradation and further modernization of the existing library facilities. Efforts will be made to establish digital libraries through subscription of e-journals. It is proposed to provide cubicles with computer facilities inside the library to be used by visiting academics and senior researchers. A range of 'value added' services will be offered to various users for which manpower and financial resources in the library and documentation centre will have to be augmented. To implement the proposals indicated above, an allocation of Rs. 450 lakhs is proposed.

3.17.4.4 Computer & GIS Centre

The importance of state-of-the-art computer facilities in a training and research institution cannot be over-emphasized. From Eighth Plan onwards, the Institute has made considerable investment in setting up of a modern computer & GIS facility. This facility has to be continuously upgraded to keep abreast with latest technology advancements. The huge quantity of data gathered during the All India Tiger Population Estimation needs to be properly stored and retrieved using a modern Information Storage System using sophisticated computer hardware and software systems. It is also proposed to extend the existing local area network to a wi-fi system across the sprawling Institute's campus covering various hostels, guest houses and faculty residences. To implement the proposals indicated above, an allocation of Rs. 450 lakhs is proposed.

3.17.4.5 Strengthening Wildlife Forensic Facility

During the Tenth Plan period the Institute has set up a modern wildlife forensic facility in response to the growing need for identifying the species and their parts/ products involved in wildlife trade. Apart for analyzing the samples received on the basis of morphometry techniques for which the Institute has developed basic protocols and infrastructure, there is a need to strengthen the wildlife forensic capability by establishing a state-of-the-art DNA facility for developing DNA profiles of key species and using modern techniques for analyses

of specimens received in wildlife offence cases from various enforcement agencies. It is proposed to set up a Central Wildlife Forensic Facility (CWFF) at the Institute during the Eleventh Plan period along with four Regional Wildlife Forensic Laboratories in Regional Wildlife Warden offices in Delhi, Kolkata, Mumbai and Chennai. The CWFF will mainly be the R&D centre to develop and standardize various techniques and protocols for identifying plant and animal parts and products involved in wildlife trade. In order to meet the safety, security and sanitation issues relating to wildlife forensic analyses, it is proposed to construct a separate building to house the forensic facility. To implement the proposals indicated above, an allocation of Rs. 1000 lakhs is proposed.

3.17.4.6 Strengthening Wildlife Research Laboratories

During the Ninth and Tenth Plan periods, the Institute had set up research laboratories to service the research and training activities. There is a need to further upgrade these facilities and to develop modern analytical capabilities for dealing with soil, water, plant and animal samples. The Wildlife Health and Wildlife Genetics laboratories set up in the Tenth Plan need to appropriately strengthened. To implement the proposals indicated above, an allocation of Rs. 450 lakhs is proposed.

3.17.4.7 Establishment Expenses

In order to meet the salary and wages and other benefits Institute's permanent and contractual staff, travel and office expenses etc. an allocation of Rs. 2000 lakhs is proposed.

3.17.4.8 Strengthening of Academic and Other Infrastructure

In order to fulfill the Institute's growing mandate of strengthening wildlife conservation, there is a need to strengthen the academic infrastructure in form of research laboratory buildings, hostels for researchers and students and international student/ trainees. Similarly, faculty houses, staff quarters, community centre etc. have also to be added in the campus. The repair and maintenance cost of buildings, internal roads, air conditioning units, power generators etc have to be met. To implement the proposals indicated above, an allocation of Rs. 2200 lakhs is proposed.

Table4: Broad Budget Break-up of Activities proposed in the Eleventh Plan

1. Wildlife Training & Academics

S.No.	Activity	Amount (in lakhs)
1	Conduct of 9 months PG Diploma Course	300
2	Conduct of 3 months Certificate Course	150
3	Conduct of 2 years M.Sc. Course in Wildlife Science	150
4	Conduct of Customized Training Programmes	250
5	Activities of Specialized Cells and Activities related to Wildlife Conventions/ Treaties (CBD/ CMS/ CITES/ CMS/ IWC etc.)	400
Total		1250

2. Research Programme

S.No.	Activity	Amount (in lakhs)
1	Ongoing Wildlife Research Projects	750
2	New Wildlife Research Projects	600
3	e-Knowledge Portal	150
Total		1500

3. Establishment of National Wildlife Library & Documentation Centre

S.No.	Heads	Amount (in lakhs)
1	Procurement of Books	100
2	Subscription of Journals	150
3	Subscription of Electronic Resources	165
4	Upgradation of Bar Code Technology	50
5	Procurement of Hardware and Software	30
6	Training of Library Professionals	5
Total		500

4. Strengthening of Computer/GIS Centre

S.No.	Heads	Amount (in lakhs)
1	Upgradation/Procurement of Computer Systems & Peripherals	250
2	Software License Renewal/Purchase/Service Support	175
3	Network/ Wi-Fi enhancement	25
4	Subscription/Upgradation of Internet Leased line connectivity	35
5	Skill enhancement of computer staff including participation in workshops/seminars	15
Total		500

5. Strengthening of Wildlife Forensic Facility

S.No.	Activity	Amount (in lakhs)
1	Ongoing Wildlife Forensic Research and Development Activities	162
2	Construction of new Wildlife Forensic Laboratory Building	140
3	Procurement of Equipment and Analytical Tools	698
Total		1000.00

6. Strengthening of Wildlife Research Laboratories

S.No.	Activity	Amount (in lakhs)
1	Procurement of Analytical Equipments & Tools	300
2	Procurement of Glassware, Chemicals, etc.	100
3	Equipment Maintenance and Support	50
Total		450.00

7. Establishment Expenditure (Plan)

Figures in lacs

S.No.	Head	2007-08	2008-09	2009-10	2010-11	2011-12	Total
1	Salaries	267.00	275.00	305.00	315.00	340.00	1502.00
2	Medical	15.00	13.00	13.00	13.00	13.00	67.00
3	Honorarium	0.50	0.50	0.50	0.50	0.50	2.50
4	OTA	6.00	5.00	5.00	5.00	5.00	26.00
5	LTC	6.00	6.00	6.00	6.00	6.00	30.00
6	Uniform	0.50	0.50	0.50	0.50	0.50	2.50
7	Bonus	5.00	5.00	5.00	5.00	5.00	25.00
8	Leave Salary and Pension Contribution	8.00	8.00	8.00	8.00	8.00	40.00
9	Pension Corpus Fund	50.00	50.00	50.00	50.00	50.00	250.00
10	Sharing of cost of Kendriya Vidyalaya	11.00	11.00	11.00	11.00	11.00	55.00
	Total	369.00	374.00	404.00	414.00	439.00	2000.00

8. Strengthening of Academic and other Infrastructure

A. Maintenance Civil		
S. No.	Item of works	Amount (in lakhs)
1	Retrofitting of administrative building	200
2	Repair, maintenance and upgradation work of administrative, library and teaching block	100
3	Providing and fixing hi-ribed pre-coated sheets for scooter shed in Type-I qtrs of WII	10
4	Providing and fixing hi-ribed pre-coated sheets for scooter shed in Type-II qtrs of WII	10
5	Relaying Himachal tiles on roof and water proofing treatment of Type-III qtrs	15
6	Relaying Himachal tiles on roof and water proofing treatment of Type-II qtrs	15
7	Relaying himachal tiles on roof and water proofing treatment of Type-I qtrs	15
8	Repair and upgradation of old and new hostel	100
9	Repair and maintenance of existing roads	60
10	Maintenance and colour wash in the existing quarters and office building	50
Sub-total		575
B. Maintenance Electrical		
1	Repair of existing 250 KVA DG set	5
2	Cabling and internal wiring in the administrative block, old hostel, new hostel	60
3	Upgradation and extension of ac system for administrative, library, teaching blocks	60
4	Maintenance of external cables and street light in Block III campus	30
Sub-total		155
C. Capital Works Civil		
1	Construction of 10 nos. Type V qtrs for faculty	200
2	Construction of 10 nos. Type IV qtrs for faculty & staff	120
3	Construction of toilet attached to the porta cabin	10
4	Construction of garage for keeping 6 nos. buses and 10 nos. small vehicles with attached drivers room and toilet	20
5	Garage for keeping 20 small vehicles	25
6	Construction of laboratory building	250
7	Construction of training hostels	300
8	Construction of ladies hostel	300
9	Construction of community centre at block III complex	20
10	Construction of community hall, dining space in the existing auditorium	100
11	Construction of a store room in the office complex	20
12	Construction of sports complex	25
13	Construction of boundary wall in block-III campus	30
Sub-total		1420
D. Capital Works Electrical		
1	Purchase and installation of new D.G. sets	50
Sub-total		50
Grand Total (A+B+C+D)		2200
Grand Total: 9400 lakhs or 94 crores		

3.18 National Zoological Park

3.18.1 Introduction

The National Zoological Park was set up in Oct 1955, on the recommendation of the (then) Indian Board for Wild life. The Scheme of National Zoological Park is a continuing scheme since 1955-56. It is the only Zoological Park in the country which is directly managed by the Government of India through Ministry of Environment & Forests.

The National Zoological Park has been evaluated in the September, 2005 by the Central Zoo Authority, the statutory body to oversee the functioning of the zoos in the country under the provisions of the Wildlife (Protection) Act, 1972. The Central Zoo Authority has granted recognition under Section 38H of the Wildlife (Protection) Act to the National Zoological Park as a Large category Zoo upto 31st December 2009 with certain conditions. The steps are under way to fulfill the conditions under which the recognition has been granted to achieve the objective of this zoo.

The separate Scheme of the National Zoological Park was merged with that of the Central Zoo Authority during Tenth Plan. However, the objectives and the targets of the National Zoological Park and the Central Zoo Authority are totally different to merge together. As a result, the development and the day to day maintenance of the National Zoological Park has suffered. Similarly, the fund for executing the capital construction works and other major renovation works are provided to the Civil Construction Unit of the Ministry. This is also a handicap for the proper growth and maintenance of the zoo. A small fund is placed directly with the National Zoological Park for Minor works, Maintenance works, Upkeep of animals, Research & Education etc. This fund is placed under Head of Account 2406 'Other Charges Plan (Revenue)'.

3.18.2 Objective, priority agenda /thrust areas, physical and financial targets and achievements

(a) Objectives

- I. Conservation and Captive breeding of endangered species,
- II. Maintaining the healthy & hygienic conditions for Zoo animals,

III. Research, Education & work regarding awareness about wildlife conservation.

IV. Providing facilities to the visitors of the zoo.

(b) Monitorable targets, priority agenda /thrust areas:

Conservation and Captive breeding of endangered species & maintaining the healthy & hygienic condition for Zoo' inmates

(c) Physical targets and achievements of the Tenth Five Year Plan:

Target for 2002-07 for the Tenth Five Year Plan

Items of work:

1. Up keep of zoo animals and their enclosure.
2. To maintain healthy and hygienic environment for zoo animals.
3. To conduct various educational programs about Wildlife.
4. To conduct various research programs

Tenth Plan Approved Outlay : Rs 7.00 Crore

Year	Allocation in Rs.(in Lacs)	Achievement
2002-03	98.36	100%
2003-04	214.88	100%
2004-05	100.00	100%
2005-06	100.00	100%
2006-07	60.00	The allocated budget shall be utilized in full

3.18.3 Comments on achievability of Tenth Plan target

Since the scheme is continuing, all physical targets shall be achieved in due course of time.

3.18.4 Proposed Financial targets and achievements for Eleventh Five Year Plan:

- (a) **Plan Revenue:** Expenditure proposed Rs.10.00 crore (details be seen at **Annexure-VI**).
- (b) **Plan Capital:** Expenditure proposed Rs.22.00 crore (details be seen at **Annexure-VII**).

3.18.5 Institutional framework and its strengthening:

The National Zoological Park is only Zoological Park which is managed by Central Government through Ministry of Environment & Forests. The Director, National Zoological Park is the Head of institution and is supported by Joint Director, Veterinary Officer, Administrative Officer, Curator (Education) and other staff to manage the affairs of the zoo. The staff strength is as under:

Group 'A'	=	4 No.
Group 'B'	=	3
Group 'C'	=	33
Group 'D'	=	139
Total	=	179

3.18.6 Monitoring and evaluation mechanism

The Scheme of the National Zoological Park is evaluated through Central Zoo Authority evaluation committee.

3.18.7 Identification of areas of significant shortfall and reasons thereof

The Capital construction works could not be executed in time, since the fund for such works is provided through Central Zoo Authority and it takes a lot of time to release the fund due to observation of formalities by the Central Zoo Authority.

3.18.8 Constraints in the achievement of goals of Tenth Plan

Since the fund for capital work is provided through Central Zoo Authority to the Civil Construction Unit of the Ministry, it is difficult to get works executed in time.

3.18.9 Suggestions for the removal of bottlenecks and further improvement in the plan performance

It is suggested that all fund for the National Zoological Park should be placed directly at the disposal of the Director, National Zoological Park to avoid the delay in execution of different works most of which are of urgent nature.

It is requested that the proposed allocation of fund of Rs.10.00 Crore under Plan Revenue and Rs.22.00 Crore under Plan Capital may be allocated to the National Zoological Park.



Subgroup on Biodiversity and Traditional Knowledge

4. Background

Biodiversity Conservation is linked to the sustainable development. Anthropogenic activities, particularly habitat conversion or land use change, land degradation and pollution, led to biodiversity losses leading to rapid decline in ecological goods and services needed for human welfare. There are many gaps in the knowledge base needed for implementation of biodiversity conservation, its sustainable utilization, and benefit sharing arising out of its utilization – the three key features of the Convention on Biological Diversity (CBD).

After prolonged discussions on: (i) the achievements made during Tenth Five Year Plan in the existing schemes/programmes of CS-I division relating to Biodiversity and its Conservation.; (ii) gaps in the knowledge; (iii) capacity-building required to generate and apply knowledge for the implementation of provisions of CBD, the Biological Diversity Act 2002 and Rules 2004, and the National Environment Policy 2006; (iv) the implementation of provisions of Biological Diversity Act 2002 and Rules 2004 relating to traditional knowledge; (v) conservation of biodiversity, including domesticated biodiversity and ecosystem restoration; (vi) marine biodiversity concerns; (vii) the need for strengthening taxonomic base; and (viii) the capacity building and inter-sectoral linkages needed for filling the gaps in the generation and application of knowledge essential for conservation and sustainable utilization of biodiversity; the Sub-group recommends the following for inclusion in Eleventh Five Year Plan of the Environment & Forest Sector:

4.1 On-going Schemes/Programmes

4.1.1 All the existing schemes/programmes relating to biodiversity and conservation should be continued and suitably augmented during Eleventh Five Year Plan. The Schemes on 'Mangroves & Coral Reefs', 'Wetlands', 'Biosphere Reserves'

and 'Botanical Gardens' have picked up momentum and the activities have also scaled up considerably. The financial provision needs to be augmented for these schemes during the Eleventh Five Year Plan in order to ensure that the activities to be undertaken under the aegis of these schemes are taken to a logical and fruitful end.

4.2 Biological Diversity Act (2002) & its Rules (2004) and Traditional Knowledge

4.2.1 As per the Biological Diversity Act 2002 and Rules 2004, it is necessary to constitute State Biodiversity Boards (SBBs) and Biodiversity Management Committees (BMCs) and make them functional for documentation, conservation and sustainable utilization of Biodiversity. Preparation of People's Biodiversity Registers (PBRs) involving locals and BMCs, and with guidance from SBBs and NBA is also stipulated in the Act and Rules. It may be noted that NBA and some SBBs have already been brought into existence. The People's Biodiversity Registers are the one way of documenting traditional knowledge and provide: (i) information on availability of traditional knowledge of people relating to biological resources (ii) details of the access to biological resources and traditional knowledge granted, (iii) details of collection fee imposed and benefits derived, and (iv) mode of sharing the benefits.

4.2.2 The implementation of the preparation of People's Biodiversity Registers programme across the country is an enormous task. Further, it has many limitations. The subgroup recommends that: (a) the programme may be implemented in a phased manner after addressing the limitations, (b) the Institutes/Agencies which already initiated such programmes should be strengthened to complete the job in States where the programme has made some progress, and (c) SBBs and BMC should be set up in all the States and local bodies, respectively.

- 4.2.3** The above recommendations are made in the backdrop of the recognition of the need to have PBRs prepared in a scientific, systematic and globally acceptable manner, and have them validated by qualified Taxonomists in order to be able to be meaningful players in the IPR regimes, and to be able to have access to benefit-sharing by communities both for genetic conservation and traditional knowledge.
- 4.2.4** There is a need to set up an Indian Biodiversity Information System (IBIS), based on the wealth of existing information on biodiversity, as well as the information generated from preparation of PBRs. The IBIS would promote conservation and sustainable use of bio-resources, and value addition to biodiversity and associated knowledge along with equitable sharing of benefits arising from their use. Preparation of IBIS could be taken up by NBA during the Eleventh Plan. A number of issues relating to IBIS would however need to be addressed, such as: maintaining confidentiality while promoting value addition, IRP issues in the context of value addition and benefit sharing. These could possibly be done through the National Innovation Foundation. Legal framework for IPRs should be strengthened through augmentation of facilities in Law/Economics/Commerce Departments of selected Universities where IPR Centres are already functioning and also the National Law Schools.
- 4.2.5** The documentation of traditional knowledge available in our ancient texts is being undertaken by NISCAIR (a CSIR lab), in the form of a computerized database, Traditional Knowledge Digital Library (TKDL). Preparation of PBRs is expected to document the un-coded, oral traditional knowledge of local people. Considering that this would be a stupendous and time-consuming exercise, it is proposed that an All India Coordinated Project on Traditional Knowledge may be launched in the Eleventh Plan for documenting the un-coded, oral traditional knowledge of local people, especially of little-known bioresources of potential economic value.

4.3 Conservation of Biodiversity (genes, populations, species, communities and ecosystems)

4.3.1 Conservation of biodiversity at the level of genes, populations, species, communities and ecosystems is achieved through two major approaches- (i) *in situ* and (ii) *ex situ* conservation. The Protected Areas (PA), which includes forests, wetlands, coastal, marine and mangrove ecosystems represent *on-site conservation* of biodiversity; these PAs constitute heritage sites and major repositories of gene pools. There is an urgent need to strengthen the conservation research and monitoring in all protected areas. This can be achieved by establishing Conservation Research and Monitoring Units in each of the protected areas and each unit should at least have one plant taxonomist, one animal taxonomist/wildlife biologist, one ecologist, and one resource economist/social scientist. The additional budget for these units should be included in Ministry's grants for Protected Areas.

4.3.2 The domesticated biodiversity includes a wide range of land races of plants and breeds of animals which constitute valuable gene pools useful for improvement of modern varieties/cultivars. One method of *in situ* conservation of these gene pools is on-farm conservation through appropriate incentives to the farmers. This programme requires to be taken up as inter-sectoral linkages. Similarly, establishment of field gene banks and breeding safaris for the domesticated biodiversity and wild relatives of domesticated species should be done through inter-sectoral linkages involving Managers of Protected Area Network and the ICAR.

4.3.3 Under *ex situ* conservation approach, seed banks, sperm- and ovum banks of threatened biota (excluding domesticated biodiversity) should be established at Forest Research Institutes, BSI, ZSI, selected Universities, National Institutes and even leading Botanical Gardens and Zoological Parks.

- 4.3.4** Maintenance of living collections in Botanical Gardens and Zoological Parks is another form of *ex situ* conservation. The existing Zoological Parks and Botanical Gardens in States should be strengthened in terms of infrastructure for maintenance of living collections of endemic and threatened biota. As a rule, each State should have one conservation- oriented Botanical Garden and Zoological Park. Alternatively, biodiversity parks/urban woodlands should be established in each state for the conservation of our natural heritage.
- 4.3.5** The underground biodiversity, particularly soil microbes are poorly understood. The land degradation has led to the loss of underground biodiversity. Similarly, the microbial diversity of fresh water and marine ecosystems are also little known and they may yield novel compounds of therapeutic and industrial value. For sustainable agriculture, microorganisms play a decisive role. They have very wide potential for stimulating plant growth, increasing nutrients availability and accelerating decomposition of organic materials, and are anticipated to increase crop production as well as maintain sound environments for sustainable harvests. Hence it is necessary to explore, preserve, conserve and utilize the unique microbial flora of our country for fulfilling the emerging food, fodder & fiber needs, clean environment and improved soil health. The next five year plan should aim at coordinated efforts leading to conserving the microbial diversity from various niches for varied applications. These microbes need to be conserved through the establishment of a number of Regional Microbial Resource Centers. These Centers should be established in Universities/Institutes located in different agro-climatic conditions.
- 4.3.6** The rich diversity in medicinal plants (over 8000 species) needs conservation and sustainable utilization, as their habitats are either degraded or the species are overexploited. The medicinal plants constitute critical resources for health care of rural communities and for the growth of Indian herbal industry. Currently India's share in the Complementary Medicine related global market is only

0.3% and there exists immense scope for expanding its share in the 62 billion US\$ world market from the present level of Rs. 5000 crore. But, it is a sad reflection that while it has the knowledge, skill and resource, India has not yet seized opportunities in the global market. Even its 0.3% share is largely (70%) through export of raw materials and only in a limited way (30%) through sale of finished products. Indian exports are thus guided by what may be termed as a trader's vision rather than by a knowledge products vision.

4.3.7 There is a need to study the agronomy of medicinal plants to develop agro-techniques for their cultivation. This research component can be taken up by universities, including State Agricultural Universities. The cultivation of medicinal plants can be taken up by State Forest Departments within the forests where they occur naturally or on lands situated close to their native habitat ranges. Forest Departments should be strengthened by the Ministry to implement these programmes. Planting of trees of medicinal value on waste lands should be encouraged. This can be implemented through National Afforestation and Eco-development Board. Bio-prospecting of native medicinal plants (over 8000 species) needs to be undertaken on a priority basis. It can be done through institutions like NIPER, Chandigarh. CSIR Labs like CIMAP, NBRI and RRL, Jammu which are at present concentrating only on 40-45 species should enlarge their mandate to embrace at least 100 highly traded, endemic medicinal plants. Simultaneously, the ICAR system should work on developing agro-technologies for bringing the endemic medicinal plants into the fold of cultivation. This would reduce pressure on forests as 95% of the medicinal plants at present are collected from the wild.

4.3.8 Inland aquatic biodiversity of rivers, lakes, reservoirs and wetlands is very rich in India. Inland aquatic systems (excluding paddy fields) cover 5.3% of the country's land area but harbour 15% and 20% of India's floral and faunal diversities, respectively. Many aquatic plant and animal species are used as protein rich foods & the aquatic

biodiversity also provides ecological services essential for human welfare. Many wetlands are threatened. Although initiatives such as NRCP, NLCP and Wetland Conservation have been taken up by the Ministry for the Conservation of rivers, lakes and wetlands, there are gaps in the knowledge relating to hydrological parameters and ecosystem processes and taxonomy of aquatic biodiversity. To fill this gap, the existing institutions carrying out work on fisheries, aquaculture and aquatic biology need to be strengthened as well as a new Centre/Institute be created for carrying out inland aquatic ecosystem studies. The implementation of various programmes of the MOEF such as NRCP, NLCP and wetland conservation have been constrained by the paucity of funds as well as studies on the aquatic ecosystems. The information on the physico-chemical aspects of water quality in rivers and lakes has become available largely because of the support from the NRCD and the CPCB, but the data on several even basic parameters such as the area and depth, and hydrology are not available. The information on biodiversity is negligible, and that on the ecosystem processes (functions) is practically non-existent. The understanding of our aquatic ecosystems has remained poor solely because there is no institution devoted to their study. The Central Inland Fisheries Research Institute of the ICAR had in its early years contributed substantially to these studies but now their programmes are concentrated on fisheries alone. The National Research Center for Coldwater Fisheries (ICAR) focuses primarily on the fisheries of Himalayan water bodies. Various university departments are engaged in testing water quality studies or examine a few organisms over a very short period. All developed countries and many developing countries throughout the world have one or more institutes devoted exclusively to the study of inland water bodies. Often there are specialized institutes or divisions, and many field stations, for the study of rivers, lakes and wetlands. These Institutes generally cover all aspects: systematics and biodiversity, water quality, ecology, management, and information systems. In order to support the MOEF's programmes related to rivers, lakes and wetlands, and to meet its obligations under the CBD and Ramsar Conventions in particular, it is highly desirable

that the MOEF sets up an **INSTITUTE OF INLAND AQUATIC ECOSYSTEM STUDIES**. There are many brackish waters and saline lakes; hence “freshwater” term is avoided. The term “wetland” is avoided so as to explicitly include the rivers as well.

4.3.9 Conservation, multiplication and propagation of rare, endangered & endemic tree species through revitalization of institutions like Institute of Forests Genetics & Tree Breeding is the need of the hour. There are over 50 handsome, tall trees mainly in North-East region and Western Ghats. These trees are represented by a narrow, eroding population. The situation is so grim that many of these tree species have only less than 10 or 20 individuals left. Since they are endemic (meaning they are not found anywhere else in the world), if they are lost, they will be lost forever. At present, the country has no facility where one can go and deposit their germplasm. Research into their pollination biology, seedling recruitment and threats faced by them is also urgently required, hand-in-hand, along with their multiplication in leading Botanical Gardens. IFGTB, Coimbatore – an ICFRE institution needs to be suitably strengthened in terms of manpower and financial assistance during the Eleventh Plan Period to cater to the aforesaid requirements. Then, there are other native, cosmopolitan trees which are dwindling in numbers in their native habitats. Again, at country level, there are no institutions where one can even deposit their germplasm. The State Forestry Departments need to be augmented and an All India Coordinated Project on ‘Native Life-support Tree Species’ needs to be launched so that its envisaged output can be mainstreamed in the Schemes of National Afforestation and Eco-development Board.

4.3.10 The native breeds of animals which traditionally formed an integral part of agriculture are getting progressively fatigued and some of them are heading towards rarity and extinction. Since early sixties mass efforts were made to improve the productivity of indigenous breeds by introducing exotic germplasm through crossbreeding with local breeds, which affected the status of many of the indigenous breeds. The indigenous livestock breeds having unique genetic characteristics resulting from thousands of years of natural

and human selection cannot be put at risk of permanent loss. There is not only scientific but also the economical justification of conservation of livestock genetic resources. Conservation strategies could include the following:

In situ Conservation: Animals can also be conserved in farmer's herds/flocks through suitable incentives. Establishment of open nucleus breeding system is another option.

Ex situ Conservation: Small population can be maintained under organized farms outside the breeding tract or in the form of breed safaris on pattern with wild animals.

Cryo-preservation: Preservation of frozen semen, embryos, somatic cells and of DNA is also an available option.

The Sub-group recommended that the proposals for Eleventh Plan could include:

- ◆ Identification and listing of all available animal germplasm.
- ◆ Breed description and characterization in order to understand their unique qualities and potential contributions.
- ◆ Assessment of genetic variability for prioritizing the breed for conservation.
- ◆ Development of technology for collection and freezing of genetic material.
- ◆ Establishment of breed societies for conservation of breeds and protection of farmer's interests. Establishment of open nucleus breeding system (ONBS) for breeds.

4.4 Ecosystems Restoration

4.4.1 Restoration of degraded ecosystems contributes towards conservation and sustainable utilization of biodiversity. Land degradation is rampant and many ecosystems are highly degraded and some of them have become extinct. For example, inner line Himalayan oak forest ecosystem and lowland tropical rainforest ecosystem of eastern

Himalaya are extinct. One way to restore the degraded ecosystems and also to bring back the vanished ecosystems is rehabilitation of degraded habitats through ecological restoration. Many of the degraded forest lands, grasslands, wetlands, coastal and mangroves ecosystems, and coral reefs can be restored to their pristine states. Such an approach not only enriches biodiversity of ecosystems but makes them sustainable and enhance their capacities to generate ecological services and goods for local communities leading to sustainable development. The Centre of Environmental Management of Degraded Ecosystems (University of Delhi) has been engaged in ecosystem restoration and has several success stories to its credit. It is a Centre of Excellence of the Ministry and it should be upgraded to the status of a National Institute within the University System by providing additional financial support for infrastructure and manpower.

4.5 Strengthening of Taxonomy

4.5.1 Taxonomy is the key discipline for inventorization, monitoring, and conservation and sustainable utilization (including bio-prospecting) of biodiversity. Taxonomists have been rapidly declining in numbers. Many groups of biota are yet to be catalogued, while biodiversity losses are rampant. There is an urgent need for capacity building (including human resources) in Taxonomy linked to Conservation and Sustainable Utilization of biodiversity. The implementation of Biological Diversity Act 2002, and Rules 2004 and National Environmental Policy 2006 is difficult without adequate number of trained Taxonomists. Consequently, the subgroup emphasizes a comprehensive 360° nurturing for Taxonomy, and recommend the following for inclusion in Eleventh Plan:

- a. The existing All India Coordinated Project on Taxonomy (AICOPTAX) should be continued and augmented.
- b. Three faculty positions at the level of Lecturer (one in each of the Departments of Microbiology, Botany and Zoology) should be created in each Central University and one University in each State particularly in those Universities where taxonomic research was or is being carried out.

- c. Three post- graduate Scholarships worth Rs. 2,000/- a month should be instituted for students opting Taxonomy as Elective courses in M.Sc. (one in each of the Departments of Botany, Zoology and Microbiology). To begin with, these scholarships should be provided at least in one University in each State and in all Central Universities.
- d. Preparation of illustrated taxonomic manuals for identification of plants, animals and microbes should be undertaken as a part of AICOPTAX.
- e. There is no expertise in some groups of organisms such as soil invertebrates, viruses, and lower group of organisms in India. There is a need for trained Taxonomists in these groups. To achieve this, grants should be made available to ZSI and BSI to recruit and to train young Indian Taxonomists by outside experts or sending young Indian Taxonomists to outside India for necessary training.
- f. In addition to mobilizing internal resources for capacity building in Taxonomy, funding from bilateral and multilateral sources (e.g. GEF) may also be pursued as deemed appropriate.

4.6 Marine Biodiversity and its Conservation & Sustainable Utilization

4.6.1 The information on marine biodiversity (including biodiversity of coastal and mangrove areas) is highly fragmentary, although it has vast economic potential. The human induced changes in terrestrial ecosystems have been adversely impacting the marine biodiversity. Further, overexploitation of economically important species is also leading to extinction of many species. Efficient management system for marine protected areas is lacking. Documentation, conservation and sustainable utilization of marine biodiversity are urgently needed. The Universities located along the coastline and National Institutes should be strengthened for undertaking studies on coastal & marine biodiversity.

4.6.2 There is a need to set up a Marine Protected Area Authority with multidisciplinary expertise so as to ensure scientific management of existing marine protected areas, and also to promote studies on marine biodiversity and its sustainable utilization and to identify new areas for establishing additional marine protected areas.

4.6.3 Deep sea and high sea explorations in the EEZ are urgently required. The Sub-Group recommended that these should be conducted by multidisciplinary teams through inter-sectoral linkages among Ministries of Earth Sciences, Environment and Forests, Agriculture and Defence.

4.6.4 The Sub-Group observed following Gaps in Coastal and Marine biodiversity research and recommended active R&D support during Eleventh Plan Period in these areas through augmentation of the MoEF's extant Scheme on Coastal Marine Biodiversity:

4.6.4.1 Conservation biology

In India, conservation biological studies have been carried out only on a few marine organisms viz. estuarine crocodiles, olive ridley, leather back and hawks bill turtles have been considered while seahorses and sea cucumbers have not been taken up in any worthwhile manner. Also the other important animals such as coral reefs, dolphins, dugongs, whale shark, mollusks and crustaceans have not been properly studied so far.

4.6.4.2 Insufficiently known species

Insufficiently known taxa are the taxa that are suspected but not definitely known to belong to any of the other categories (extinct, endangered, vulnerable or rare) because of lack of information. This is mainly because of the lack of expertise on specific groups, lack of funding to work on groups having only scientific importance, lack of coordination in exchanging data, lack of proper technology in culturing/growing the organisms etc.

4.6.4.3 Database creation and networking

Many institutions and individuals have now started developing databases on a variety of aspects of marine biodiversity. However, many of them are not up to the standard. This is mainly because of the improper planning, lack of infrastructure, and more importantly

the lack of coordination between the experts in the respective fields to involve in such team work. Above all, inadequate funding to establish infrastructure, procure skilled manpower and utilize retired experts to develop such databases is the main reason.

4.6.4.4 Training and Capacity Building

It is evident that the Taxonomists are either aging or declining in number and there is lack of expertise in identification of several taxonomic groups mainly because of failure in transferring the capacity in taxonomic identification to the next generation.

4.6.4.5 Bio-prospecting

Bio-prospecting is the exploration of wild biodiversity in search of useful resources. India has a strong base of indigenous knowledge on various aspects of biodiversity including coastal and marine biodiversity. This traditional knowledge has to be scientifically validated through screening of biological diversity for commercially valuable products.

4.7 Biological Invasions and Biodiversity Loss

4.7.1 Loss of Biodiversity due to biological invasions has been documented at local, national and regional levels. We need to strengthen the quarantine measures as well as to develop appropriate management strategies for India's worst weeds. To achieve this, there is an urgent need for the: (i) preparation of illustrated accounts of all invasive weeds and training of quarantine officers, both of which should be included as a part of augmented AICOPTAX and (ii) to strengthen 'Quarantine System' by inclusion of plant/ animal /microbial taxonomists in the existing quarantine system used for pest and pathogen management. Strengthening of quarantine system would also require inter-sector linkages among concerned Ministries/Departments of Government of India.



Subgroup on Animal Welfare

5. Introduction

The sub group considered the following schemes pertaining to Animal Welfare:

1. Provision of Shelter Houses
2. Provision of Ambulance Services for animals in Distress
3. Animal Birth Control and Immunization of Stray Dogs
4. Scheme for Relief to Animals during Natural Calamities and Unforeseen circumstances
5. Assistance to Animal Welfare Board of India (AWBI)
6. Assistance to Committee for the Purpose of Control and Supervision of Experiments on Animals, (CPCSEA)
7. National Institute of Animal Welfare

Of these, the first four have been transferred to the AWBI for administration during 2004-05. Thus in effect the AW division now has 3 constituent units - the Animal Welfare Board of India (AWBI), the National Institute of Animal Welfare (NIAW) and the Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA).

The first section of the report details the performance of these constituent units over the Tenth plan period. Section two deals with recommendations of the sub group along with justification for the proposed recommendations.

5.1 Overview of the Tenth Plan

5.1.1 Animal Welfare Board of India

The Animal Welfare Board of India was setup in 1962 in accordance with section 4 of Prevention of Cruelty to Animals Act, 1960 (No.59 of 1960). The Board consists of 28 Members appointed by the Govt. of India and administered by the Ministry of Environment & Forests.

Functions of the Board, in brief, are as under:

- (i) Keeping the Law in force in India for PCA Act under study and to advise the Government on the amendments to be undertaken in any such law;
- (ii) To take all such steps as the Board may think fit for the amelioration of animals by encouraging or providing for the construction of sheds, water troughs and the like and by providing for veterinary assistance to animals;
- (iii) To encourage by way of grant of financial assistance or otherwise the formation or establishment of pinjrapoles, rescue homes, animal shelters, sanctuaries and the like, where animals and birds may find a shelter when they have become old and useless or when they need protection;
- (iv) To give financial and other assistance to Animal Welfare Organizations functioning in any local area or to encourage the formation of Animal Welfare Organizations in any local area which shall work under the general supervision and guidance of the Board;
- (v) To impart education in relation to the humane treatment of animals and to encourage the formation of public opinion against the infliction of unnecessary pain or suffering to animals and for the promotion of animal welfare by means of lectures, books, posters, cinematographic exhibitions and the like;

The Board implements schemes for furthering welfare of animals through numerous recognized Animal Welfare Organizations all over the country.

Description of Schemes Implemented by the AWBI

Apart from plan and non plan funds made available to the AWBI under the Scheme "Assistance to AWBI", the AWBI also administers 4 Central Sector Schemes. Each of these are described below:

5.1.1.1 Scheme for provision of Ambulance Services to Animals in Distress

Under the Scheme, Ambulance/Rescue Vehicles are provided to the competent organizations working in the field. The ambulance services are to be used for the following purposes:

- ◆ to ensure that immediate attention is given to sick, injured and animals in distress;
- ◆ to act as an outreach for poor people who have large animals that are involved in accidents or affected with disease and immobile;

- ◆ to act as mobile clinic to hold camps where animals in a village can be vaccinated and treated;
- ◆ to pick up unwanted or hostile animals from human habitations;
- ◆ to implement the anti-rabies programme by collecting dogs and then releasing them after sterilization and immunization;
- ◆ to transport animals to the veterinary hospitals when their owners are unable to do so.

Under this scheme the NGOs are assisted to the extent of 90% project cost for purchase of a suitable vehicle and equipment, modifications and fittings thereon. The maximum amount of grant-in-aid is limited to Rs. 3.50 lakhs for purchase of the vehicle and Rs. 1.00 lakhs for equipment, modification and fittings thereon.

5.1.1.2 Scheme for Animal Birth Control and Immunization of stray dogs

Keeping in view the increased number of stray dogs throughout the country and also the increase in number of rabid dogs, this scheme was being implemented by the Ministry and now has been transferred to the Board to conduct sterilization and immunization of stray dogs through the NGOs including SPCAs throughout the country. The Local Governments/Municipal bodies are also showing increased keenness in providing assistance for the programme. However, they are willing to provide infrastructural facilities only. Since this scheme has been transferred to the Board, there is every likelihood that the local bodies may also apply to the Board for financial assistance.

Under the scheme, the norms for financial assistance are at Rs. 370/- per dog for pre & post operative care including medicines & ARV and Rs. 75/- per dog for catching and relocation of dog.

5.1.1.3 Calamities and Unforeseen Circumstances

Every year, there are natural calamities in the form of floods, cyclones, droughts and earthquakes. In such circumstances there is an immediate requirement for the provision of fodder, adequate shelter, medical attention etc. for the affected animals or otherwise the

animals would perish. In the recent past there was severe drought prevailing in the states of Rajasthan, Gujarat, Madhya Pradesh, Andhra Pradesh and floods in the States of Orissa, West Bengal and Tsunami in Tamil Nadu, Pondicherry, Andhra Pradesh and Kerala.

Also large number of animals are illegally transported and slaughtered in violation of the Act and Rules and Regulations in force. Emergency services have to be provided to such rescued animals and also animals rescued from various circuses etc. The above scheme provides for this.

It is proposed to extend financial assistance to AWOs, State Governments/UTs, local bodies working in the affected areas for providing relief to the animals affected during natural calamities and for relief of animals rescued from illegal transportation, slaughter, circuses etc.

5.1.1.4 Scheme for Provision of Shelter Houses for Animals

There are almost one billion animals in our country. A number of them are not cared for and are left in the streets either wounded or suffering from various diseases. Though shelter houses operating at various places, their number is not adequate and the facilities provided are insufficient. This scheme endeavours to fill this gap and provide requisite services for the care and protection of uncared for animals by making provision for establishment and maintenance of shelter houses in all the districts of the country.

Under this Scheme, the AWOs are assisted to the extent of 90% of the project cost of the construction of a shelter house with a ceiling of Rs. 25 lakhs including 10% contribution to be made by the AWOs. The amount is released in two equal installments.

5.2 Plan Account

The Plan account proposals relate to the expenditure, which are of non-recurring nature and related to the following type of activities:

- a) Financial assistance to Animal Welfare Organisations for holding animals in distress and their treatment.

- b) Humane Education Programmes implemented directly by the Board as well as support to AWOs for this purpose.
- c) Capital expenditure at the Board's Headquarters i.e. expenditure on non-recurring items such as purchase of Assets/equipments.
- d) Expenditure on a variety of other animal welfare activities such as Rescue of Cattle from illegal smuggling and transportation, rehabilitation of rescued circus animals, Lab Animals, inspections, Legal expenses in connection with court cases pertaining to animal welfare.

A large proportion of the Plan funds are allocated to the nearly 2300 NGOs / AWOs that have been recognized by the Board. Such funding is made available subject to the NGOs fulfilling the requisite conditions for seeing grants.

Details of activities undertaken through Plan funds are available at **Annexure 1**.

5.3 Non-Plan Account

The Non-Plan expenditure relates to the day to day expenditure such as salaries and other allowances, traveling allowance for attending meetings, office expenses which includes rent, rates and taxes, electricity, postage, telephones and other office expenses. These expenditure are of routine nature, recurring and for meeting the day-to-day expenditure to run the office establishment.

5.4 Performance during Tenth Five Year Plan – 2002-2006

During the Tenth Plan period, substantial strides have been made in comparison to the previous plan period. The AWBI has set up a vigorous process of monitoring and field visit of AWOs. The inspection reports submitted by the various inspecting agencies are taken into account when financial assistance is sanctioned.

Equal stress has been laid on the quality of work being done by the AWOs and quantity i.e. increase in number of AWOs over the country.

Table 5 encapsulates the achievements of the AWBI during the Tenth Plan period:

Table 5: Performance of AWBI during the Tenth Plan Period

Programme	Tenth Plan Budget (in Crores)	Expenditure (in Crores)	Goals set for Tenth Plan	Achievements
Non-Plan	2002-03 : 0.53 2003-04 : 0.68 2004-05 : 0.68 2005-06 : 0.65 2006-07 : 0.80	2002-03 : 0.55 2003-04 : 0.70 2004-05 : 0.68 2005-06 : 0.65 2006-07 : 0.80 (Anticipated)	- - - - -	- - - - -
Plan	2002-03 : 6.45 2003-04 : 4.67 2004-05 : 4.95 2005-06 : 4.60 2006-07 : 4.70	2002-03 : 5.85 2003-04 : 5.25 2004-05 : 5.59 2005-06 : 4.63 2006-07 : 4.70 (Anticipated)	1104 AWOs 842 AWOs 850 AWOs 700 AWOs 700 AWOs	969 AWOs 842 AWOs 852 AWOs 700 AWOs -
Ambulance	2004-05 : 0.28 2005-06 : 0.73 2006-07 : 1.25	2004-05 : 0.28 2005-06 : 0.73 2006-07 : 1.25 (Anticipated)	8 AWOs 19 AWOs 28 AWOs	8 AWOs 19 AWOs -
Shelter	2004-05 : 2.28 2005-06 : 6.55 2006-07 : 7.10	2004-05 : 2.28 2005-06 : 6.55 2006-07 : 7.10 (Anticipated)	26 AWOs 70 AWOs 70 AWOs	26 AWOs 70 AWOs -
ABC	2004-05 : 1.51 2005-06 : 3.00 2006-07 : 3.40	2004-05 : 1.51 2005-06 : 3.00 2006-07 : 3.40 (Anticipated)	29000 ABCs 76404ABCs 80000 ABCs	29421 ABCs 85485 ABCs
Natural Calamity	2004-05 : 0.30 2005-06 : 0.14 2006-07 : 0.30	2004-05 : 0.30 2005-06 : 0.06 2006-07 : 0.38 (Anticipated)		6 AWOs 2 AWOs

Note: The last four schemes given above, were transferred to the Board by the Ministry in mid 2004-05.

5.5 Recommendations for the Eleventh Plan

5.5.1 Animal Welfare Board of India

Since May 2006, the full complement of members of the Board have been appointed and the body has energetically approached its mandate both from the point of view of improving the lot of animals as well as associated human welfare issues.

The sub group recommends that a majority of the activities that were undertaken during the Tenth plan period be continued during the Eleventh plan period as well. These pertain to support to AWOs for dispensing relief during natural calamities (CSS), and several other activities that are being supported through the Plan funds of the AWBI as described in **Annexure 1**. In addition the sub group has identified certain thrust areas that must be focused upon during the Eleventh Plan period. In order to accommodate these thrust areas in the Eleventh Plan projections, some activities being undertaken through Plan funds have been rationalized and converged with others that had similar thematic focus. In this manner space has been found to accommodate the recommended thrust areas. Thus instead of 16 component heads (refer **Table 3**), there are now 14. Such convergence and rationalization of activities will simplify the administrative effort involved and free up funds for use in the identified thrust areas.

The thrust areas that require focus during the Eleventh Plan period are described below:

5.5.1.2 Rabies Control

Rabies is one of the most dreadful infectious diseases affecting both human beings and animals. Rabies is prevalent throughout India except the islands of Lakshadweep and Andaman & Nicobar but has a low public health priority. Rabies is mainly a problem of developing world – Asia & Africa where 99% of all human deaths estimated to be over 55,000 occur globally every year. WHO has reported that 60% of global mortality is contributed by India alone besides causing a large number of deaths in domestic & wild animals. Considering that Rabies is fully preventable disease and the huge expenditure incurred on post-exposure vaccination both in humans as well as animals, there is an urgent need to control and finally eradicate this dreaded disease from India as has been achieved by several European countries as well as South East Asian countries like Malaysia and Singapore.

The AWBI is currently the only agency which is involved with controlling the population of stray/community dogs (ABC) and administering anti-rabies vaccinations (ARV) to them in some metros of the country.

The AWBI in collaboration with the National Institute of Communicable Diseases (NICD), Ministry of Health & Family Welfare and Department of Animal Husbandry, Ministry of Agriculture organised a two day

“Integrated National workshop on Control of Rabies in India” on 21st and 22nd September, 2006 at the National Institute of Health & Family Welfare, Munirka, New Delhi. Drawing upon the recommendations of this workshop, the sub group recommends the following actions to improve the effectiveness of rabies control efforts through limiting the population of dogs and their vaccination:

- a) The **reach of the ABC** and ARV activities need to be considerably broadened to reach out to semi urban and rural areas as well. This will require a manifold increase in the capacity of various agencies – NGOs as well as municipal bodies to handle such activities.
- b) The **intensity of effort** within cities where this programme is functional needs to be greatly enhanced by increasing the number of animals that are sterilized and vaccinated.
- c) The **effectiveness** of this programme in areas where it is operating needs to be improved through rigorous monitoring (both external as well as internal) and intensive awareness and advocacy.

In order to actualize such a Rabies Control Programme, a multi pronged approach described below will have to be adopted:

- ◆ ABC operations will continue with increased reach and intensity and will be supported out of the existing CSS for this purpose. For ABC operations to increase in number and intensity, necessary collaterals are physical capacity to hold the requisite number of animals as well as mechanisms to transport animals to and from the sterilization centres. There are provisions for both of these via two existing CSSs – Shelter House and Ambulance Services. The operation of these three schemes in tandem backed by allocations as projected in the tables below will ensure that the Rabies Control Programme gains the requisite momentum and is sustained through the Eleventh Plan period.
- ◆ The other dimension of the Rabies Control Programme will deal with Anti Rabies Vaccinations (ARV). The sub group recommends particular emphasis on enhanced allocations for orally administered anti rabies vaccines. Such a vaccine is now available in India and would be an effective tool for a large majority of dogs that cannot be caught (for ABC operations) as well as for revaccination. A glaring lacuna of the current ABC programme is the fact that there are no mechanisms for

revaccination, which is an integral part of the rabies control strategy endorsed by the World Health Organisation (WHO). In order to fill this lacuna and to ensure that the chain of propagation of rabies is definitively broken, a massive nation wide programme throughout the country for vaccinating dogs using the orally administered anti rabies vaccine is suggested.

- ◆ The third and final dimension of a nationwide rabies control programme deals with Education and Awareness and Monitoring.

A large number of dogs in India have guardians even though they may not be owned in the strictest sense of the term. Such animals are often concealed during dog catching operations and thus remain out of the ABC/ARV loop. Opposition to having their dogs captured is usually not in opposition of sterilization and vaccination, but in the belief that capture may lead to the killing of the dog. These dogs have high fecundity, regularly mate and their offspring contribute to the population of feral dogs. There are also strictly owned dogs that are left free to mate with feral dogs. In order to bring these two categories of animals under the purview of ABC/ AR, targeted education and awareness drives among their guardians/ owners is the only viable strategy and is being proposed as an integral part of the nation wide rabies control programme.

Finally, effective monitoring has been seen as a cornerstone of any successful dog population and rabies reduction programme. The experiences of Help in Suffering in Jaipur and Blue Cross, Chennai in reducing incidence of rabies as well as stable dog populations underscore the importance of a well designed and implemented monitoring programme. Such monitoring establishes baselines of numbers of animals as well as rabies cases from target areas. Subsequently the success (or lack) of the programme is tracked through various indicators to be developed as part of the programme.

In order to implement such a wide spread programme on control of rabies with all the requisite elements, a pilot project targeting select urban and rural areas is proposed. In keeping with the recommendations of the Integrated National workshop on Control of Rabies in India, tentatively 5 urban and 10 rural areas may be targeted for this programme. The pilot project can follow the following broad guidelines as proposed during the above referred National Workshop:

- ◆ In the first year the Pilot project will be implemented in five urban areas and ten rural areas.
- ◆ AWBI, NGOs, AWOs & SPCAs should get full support from the State Animal Husbandry Department/Health Department and local bodies/municipal authorities to implement the project.
- ◆ At the end of the first year of the Pilot Project the progress will be reviewed to measure the effectiveness of the Programme under the Chairmanship of the AWBI with senior nominated members from all the three concerned ministries.
- ◆ In the second year Pilot Projects will be implemented in Ten States/Metros and thirty rural segments to address the problem of high incidence of rabies in these areas.
- ◆ After this there will be a mid-term appraisal to sharpen the action plan.
- ◆ From the third year onwards the control programme should cover larger area of the country. On receiving information about the occurrence of a Rabies case, from a certain area the Rabies Control and vaccination team working under the control of AWBI should immediately be dispatched to the site to vaccinate all dogs with in a radius of 3 Kms from the scene of occurrence of Rabies case.

An ambitious programme of this nature will require appropriate support from the Planning Commission. Projections for supporting this programme have been made in the following manner:

- ◆ CSS schemes Shelter House, Ambulance services and ABC will support enhanced ABC operations¹ (See **Table 6**). Thus additional allocations for these 3 CSS are proposed on these grounds.
- ◆ Plan Fund heads Education and Awareness (1), Oral Anti Rabies Vaccinations (8), Capacity Building (11), Research and Monitoring (13) will support other elements of the Rabies Control Programme as described in the preceding paragraphs. Proposed allocations for these have been modeled on the basis of needs of the Rabies Control Programme as well as ongoing

¹ *This must be read with the rider that Ambulance Services and Shelter House schemes will also support non- ABC related animal welfare activities as well. However, the enhanced allocations are being justified on the basis of the needs of the Rabies Control Programme.*

animal welfare activities in the country that are in addition to the Rabies control Programme.

5.5.1.3 Gaushalas

The country's large cattle population is supported by a network of Gaushalas and Pinjrapoles, which are in turn provided several types of support by the AWBI. A number of these Gaushalas were set up by philanthropists and individuals and groups that, though committed to the cause of animal welfare did not necessarily have the management and other capacities required for effective functioning. It is therefore recommended that the AWBI should undertake a special drive over the Eleventh Plan period in order to modernize Gaushalas and provide the requisite training to Gaushala personnel.

It is tentatively proposed to train about 1000 Gaushala personnel during each year of the 5 year plan period in the following thematic areas:

- a. Vermicomposting and production of manure
- b. Utilization of cow dung and urine for the manufacture of bio pesticides and anti mosquito coils;
- c. Production of Biogas;
- d. Generation of carbon dioxide and methane and bottling these;
- e. Development and use of draught power equipment;

Gaushalas that have their personnel trained will also be supported by the AWBI for developing these facilities/ products on their premises.

Item 7, Table 7 provides for this thrust area through the Plan allocations to the Board.

5.5.14 Capacity Building

The sub group strongly recommends a concerted thrust on improving capacities among a range of stakeholders in order to sustainably improve animal welfare standards throughout the country. The capacity building mission could be divided into two broad thematic areas:

- a) ABC related capacities – In order to ensure a steady supply of capacitated personnel to undertake the ambitious Rabies Control Programme outlined under II.1.i above, it is important that the Board support a strategic capacity building programme. It is tentatively proposed that one existing AWO each in north

and south India will be developed as a node for capacity building and other support required for the Rabies Control

- b) Programme. These organizations would provide training to AWO personnel with various aspects of ABC including dog census techniques, trapping, pre and post surgery, surgical methods, post surgical recover, release, administration and monitoring. Help in Suffering (Jaipur) and Compassion Unlimited Plus Action (Bangalore) have executed successful ABC programmes in their respective cities and have the requisite experience to train personnel of other NGOs in these skills and techniques.
- c) It is proposed that the Board should support strategic infrastructure and training equipment that will enable the two organizations to host and train personnel of NGOs in ABC.
- d) Capacities related to other Animal Welfare Issues – the National Institute of Animal Welfare (NIAW) is now ready and operational and is in a position to provide capacity building on a range of animal welfare issues. It is proposed that the Board should sponsor Honorary Animal Welfare Officers, SPCA personnel, Police personnel, Slaughter House workers and others in order to improve their ability to execute their respective duties while safeguarding animal welfare principles. It is recognized that sponsorship from the Board will be an important incentive in securing the participation of such stakeholder groups in the capacity building process. It is this proposed that funds may be allocated for supporting the training and capacity building of various personnel at the NIAW.

Allocations for Capacity Building have been depicted under Component Head 11 in **Table 7**.

5.5.1.5 Formulation of Standards and Performance Monitoring

There are nearly 2,300 NGOs affiliated to the Board, out of which nearly 1,000 are provided regular financial support by the Board for a variety of activities. The grants range from a few thousand to several lakhs. A strong need is felt for improved assessment and performance monitoring of these groups on the basis of standards, indicators and criteria that are rooted in scientific and animal welfare good practices.

Though the Board does inspect each group upon receiving grant applications, it is proposed to streamline and professionalise this process.

A two stage approach is proposed for this comprising of developing appropriate standards for the functioning of various animal welfare groups. Building on such standards, it is further proposed to develop a professional panel of referees who will be trained in monitoring and evaluation techniques. Finally, a comprehensive monitoring and evaluation plan (M&E) will be developed that will include details of monitoring schedules, frequencies, methodologies, and analysis.

Component head no. 9 in **Table 7** reflects this recommendation and will support hiring of experts/ consultancy services for developing standards, training of evaluators and logistical expenses in administering the M&E programme.

5.5.1.6 Non Plan Allocations

The Board does not receive a separate allocation of budget for making payments towards retirement benefits of its staff viz. leave encashment and retirement gratuity. Hence this is included in the Non-Plan account of the Board. During the Eleventh five year Plan, three staff members are retiring in the years 2007-10. Provision for the same has been made therefore in the outlay of Non Plan funds and the sub group recommends that an allocation be made to the Board (as part of its non Plan funds) that will enable it to offset this cost.

Tables 6, 7 and 8 below reflect these recommendations translated into projected allocations for the Eleventh plan period.

Table 6: Projected Allocation of AWBI for the Transferred Centrally Sponsored Schemes (Rs. in Lakhs)

S. No.	Name of Schemes	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	Total
1	2	3	4	5	6	7	8
1	Shelter House	1650.00	1750.00	1850.00	1950.00	2050.00	9250.00
2	ABC	1000.00	1100.00	1200.00	1300.00	1400.00	6000.00
3	Ambulance Services	400.00	425.00	450.00	475.00	500.00	2250.00
4	Natural Calamity Relief	50.00	50.00	50.00	50.00	50.00	250.00
	TOTAL	3100	3325	3550	3775	4000	17750.00

Table 7: Projected Allocations for the Plan Funds of the AWBI (Rs. in Lakhs)

S. No.	Component Heads	2007-08	2008-09	2009-10	2010-11	2011-12	Total
1	2	3	4	5	6	7	8
1	Advocacy, Humane Education and Awareness	100	105	110	115	125	555

S. No.	Component Heads	2007-08	2008-09	2009-10	2010-11	2011-12	Total
2	Maintenance of Animal Shelters, provision of water troughs and mangers.	100	110	120	130	140	600
3	Provision of Medicines and veterinary equipment to AWOs and establishment charges of para veterinary staff.	125	132	140	145	150	692
4	Initial support grant to new AWOs and Regular grant to AWOs (please see Annexure 3 for details of Regular grant)	100	110	120	130	140	600
5	Conferences/ Seminars	10	10	10	10	10	50
6	Non recurring Expenditure Board's Headquarters	15	15	15	20	20	85
7	Gaushalas : (i) Modernisation; (ii) Training	350	400	450	500	550	2250
8	National Rabies Control Programme through Oral Anti Rabies Vaccinations.	500	500	500	500	500	2500
9	Formulation of Standards for the functioning of Gaushalas, SPCAs and other AWOs and Performance Monitoring of these.	29	29	29	29	29	145
10	Investigation and Prosecution (including legal expenses, inspection of slaughter houses acc to SC order)	11	11	11	11	11	55
11	Capacity Building – Honorary Animal Welfare Officers, SPCA personnel, vets and para vets for ABC, Police personnel, Slaughter House workers etc.	150	175	190	200	210	925
12	Special Assistance provided for feeding and maintenance of animals rescued from illegal transportation and laboratories.	150	160	170	180	190	850
13	Monitoring and Research	125	130	135	140	145	675
14	Grant Assistance to State Animal Welfare Advisory Boards and SPCAs.	35	35	37	37	42	186
Total		1800	1922	2037	2147	2262	10168

Table 8: Projected Allocations for the Non Plan Funds of the AWBI (Rs. in Lakhs)

S. No.	Name of Schemes	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	Total
1	2	3	4	5	6	7	8
1	Salary of Establishment	61.00	75.00	78.00	80.00	82.00	376.00
2	Traveling Allowance	18.80	20.00	22.00	24.00	25.00	109.80
3	Office Expenses	23.20	25.00	28.00	30.00	32.00	138.20
4	Retirement Benefits	5.00	5.00	5.00	-	-	15.00
	TOTAL	108.00	125.00	133.00	134.00	139.00	639.00

The details of various schemes for 'Animal Welfare' are given in Annexure VIII to Annexure XII.

Summary of Proposed Allocation for Eleventh Plan

A. WILDLIFE

S. No	Scheme	Allocation (Rs in crores)
Ongoing Schemes		
1	Development of National Parks and Sanctuaries re-named as Conservation of Protected Areas (CSS)	910.00
2	Project Tiger (CSS) re-named as National Tiger Conservation Authority	1071.80
3	Project Elephant (CSS)	150.00
4	Central Zoo Authority (CS)	205.00
5	Wildlife Institute of India (CS)	94.00
6	National Zoological Park (CS)	32.00
Total		2462.80
New Schemes		
1	Protection of Wildlife outside Protected Areas	117.50
2	Rationalizing of PA Boundaries, Final Notification and Settlement of Rights	10.00
3	Relocation of Villages from PAs and Critical Wildlife Corridors	250.00
4	Ecodevelopment in Protected Areas	300.00
5	Mitigation of Human-Wildlife Conflicts	110.00
6	Alternative Employment for Traditional Hunting Communities	50.00
7	Saving Critically Endangered Species and Habitats 1. Project Snow Leopard & High Attitude : 30 Crores 2. Project Bustard & Grasslands : 10 Crores 3. Project Dolphin and River Systems : 10 Crores	50.00
8	Wildlife Crime Bureau	200.00
9	Research and Training	50.00
10	Mainstreaming Conservation in the Plans and Activities of Line Departments and Government Agencies	10.00
11	Creation of a Cell within MoEF to monitor the implementation of various Conservation Schemes	50.00
Total		1197.50

ANNEXURE-I

M-13033/1/2006-E&F
Planning Commission
(Environment & Forests Unit)

Yojana Bhavan, Sansad Marg,
New Delhi, Dated 21st August, 2006

Subject: Constitution of the Working Group on Wildlife, biodiversity, traditional knowledge, and animal welfare for the Environment & Forests Sector for the Eleventh Five-Year Plan (2007-2012).

It has been decided to set up a Working Group on Wildlife, biodiversity, traditional knowledge, and animal welfare for the Environment & Forests Sector for the Eleventh Five-Year Plan. The composition of the Working Group will be as under:

- | | |
|---|------------------|
| 1. Director General, Forests, MoEF, New Delhi | Chairman |
| 2. Principal Adviser (E&F), Planning Commission, | Member |
| 3. ADG (WL), MoEF | Member |
| 4. IG, Wildlife, MoEF, New Delhi | Member Secretary |
| 5. Joint Secretary (BC & AW), MoEF | Member |
| 6. Joint Secretary (CS & NAEB), MoEF | Member |
| 7. Joint Secretary in charge of Eco tourism,
Ministry of Tourism | Member |
| 8. Director, Wildlife Institute of India, Dehradun | Member |
| 9. Maj. Gen. (Retd) K M Kharb, Chairman,
Animal Welfare Board | Member |
| 10. Director, Project Tiger, MoEF, New Delhi | Member |
| 11. Director, Project Elephant, MoEF, New Delhi | Member-Convener |
| 12. Member Secretary, Central Zoo Authority, New Delhi | Member |
| 13. Director, Zoological Survey of India, Calcutta | Member |
| 14. Director, National Institute of Oceanography, Goa | Member |
| 15. Director, BNHS, Bombay | Member |
| 16. Dr R Sukumar, Indian Institute of Science, Bangalore | Member |
| 17. Representative of Centre for Wildlife Studies, Bangalore | Member |
| 18. Chief Wildlife Warden, Tamil Nadu | Member |
| 19. PCCF, Assam | Member |
| 20. Chief Wildlife Warden, Orissa | Member |
| 21. Shri M.K.Ranjitsinh, Global Tiger Forum, New Delhi | Member |
| 22. Director, Centre for Environment Education, Ahmedabad | Member |
| 23. Ms. Sejal Vohra, WWF, New Delhi | Member |

24. Smt. Pratibha Pandey, Kalpavriksha, Maharashtra	Member
25. Shri M. Ravindranath, Joint Adviser, Planning Commission	Member
26. Dr. S K Khanduri, Director, Planning Commission	Member
27. Shri H S Pabla, APCCF, Biodiversity Forest Department, Bhopal	Member
28. Shri Samar Singh, New Delhi	Member
29. Dr D S Srivastav, Nature Conservation Society, Bihar	Member
30. Dr. Madhusudan, Nature Conservation Foundation, Mysore	Member
31. Dr. Rucha Ghate, Institute for Research and Development, Nagpur	Member
32. Dr. Gazala Shahbuddin, Council for Social Development, New Delhi	Member
33. Dr. Arpan Sharma Samrakshan, New Delhi	Member
34. Chief Wildlife Warden, Kerala	Member
35. Dr. Darshan Shankar, FRLHT, Bangalore	Member
36. Director, Centre for Environment and Development, Kolkata	Member

Terms of Reference of the Working Group will be as follows:

1. Review of the existing schemes/programmes of the Ministry of E & F in Wildlife and Animal Welfare Sectors and suggest ways to improve the efficiency of delivery through legislative, administrative, programmatic and resource interventions.
2. To suggest development goals, strategy, portfolio of schemes /programmes for the management of wildlife and Animal Welfare sectors in the 11th Plan along with financial outlay.
3. To evaluate the present status of zoo management, its contribution in conservation of biodiversity and suggest the future plan including possible coverage of botanical gardens/biological parks within the sub sector.
4. To review the status of management planning of various national parks, sanctuaries and conservation reserves and suggest specific role of Govt of India in improving the quality of interventions in view of national and international commitments.
5. Recommend possible road map for developing and integrating eco-tourism in the eco development of the communities living in the vicinity of forests and protected areas.
6. To review the existing organizations and suggest a strategy for coordinating implementation of various programmes for the control of poaching and illegal trade in wildlife products.
7. To deliberate on the strengths and weaknesses including the extent of community involvement and the outcome of the recently concluded

- India Eco development Project and suggest the utility of the approach for adoption in future conservation plans for Protected Areas.
8. Deliberate on the various social, economic and conservation aspects of the Biological Diversity Act and suggest a roadmap for its implementation conforming to the socio-economic and management objectives emanating from the Convention on Biological Diversity, in particular the ecosystem approach, and the provisions for benefit sharing therein.
 9. Recommend how an Indian Biodiversity Information System (IBIS) may be organized with appropriate provisions for safeguarding Intellectual Property Rights of individuals and communities providing knowledge on uses of biodiversity that may lead to commercial applications.
 10. Examine the possibilities of extending programmes of joint forest management to protected areas.
 11. Examine ways of creating positive incentives for conservation and regeneration of biodiversity resources through payment of service charges to the local communities following the Costa Rica model for payment of service charges for watershed conservation services following the Costa Rica model.
 12. A community centered Animal Welfare strategy with vigorous role for voluntary agencies. Roadmap for effective role of the National Institute of Animal Welfare in fulfilling the desirable ethos in handling of animals and their welfare.
 13. To make recommendations regarding mobilization of requisite financial resources for fulfillment of various goals and objectives set for wildlife sector.
 14. Any other issue, which the working group considers relevant.
 15. Official members of the Working Group will be paid TA/DA by their respective Departments as per the rules of entitlement applicable to them. The non-official members will be paid TA/DA by the Planning Commission as per SR 190 (a) for attending meetings of the Working Group.
 16. The Working Group will submit its report to the Planning Commission by 31.10.2006.
 17. Shri M. Ravindranath, Joint Adviser (E&F), Room No. 301, Yojana Bhavan (Tel No. 23096536) will be the Nodal Officer for this Working Group for all further communications.

Dr S K Khanduri
Director (Forestry)

Copy forwarded to: All Members of the Working Group.



ANNEXURE-II

Item wise Requirement of Funds for National Tiger Conservation Authority

(Rs. in crores)

S. No.	Name of Activities	2007-08	2008-09	2009-10	2010-11	2011-12	Total
1	Anti-poaching	13.00	13.50	14.00	14.50	15.00	70.00
2	Strengthening of infrastructure within Tiger Reserves (including new Tiger Reserves)	13.00	15.00	17.00	13.00	12.00	70.00
3	Habitat improvement and water development	10.00	10.00	15.00	20.00	20.00	75.00
4	Addressing man-animal conflict (ensuring uniform, timely compensation for human deaths due to wild animals, livestock depredation by carnivores, crop depredation by wild ungulates)	20.00	20.00	25.00	25.00	25.00	115.00
5	Co-existence agenda in buffer / fringe areas (landscape approach/sectoral integration/ecologically sustainable development programme/livelihood options/eco-tourism)	25.00	25.00	30.00	40.00	40.00	160.00
6	Rehabilitation / resettlement of denotified tribes / communities involved in traditional hunting	20.00	20.00	25.00	25.00	30.00	120.00
7	Research, providing equipments (camera traps, GPS, etc.), computer softwares, All India Estimation of Tiger/Co-predators/Prey Animals, habitat monitoring and evaluation	4.00	4.00	4.00	5.00	5.00	22.00
8	Staff development and capacity building	4.00	4.50	5.00	5.50	6.00	25.00
9	Deciding inviolate spaces for wildlife and relocation of villagers from crucial habitats in Tiger Reserves within a timeframe (five years) and settlement of rights	20.00	30.00	50.00	50.00	50.00	200.00
10	Mainstreaming livelihood and wildlife concerns in forests outside tiger	20.00	20.00	30.00	30.00	40.00	140.00

S. No.	Name of Activities	2007-08	2008-09	2009-10	2010-11	2011-12	Total
	reserves and fostering corridor conservation through restorative strategy involving locals to assess fragmentation of habitats						
11	Safeguards / Retrofitting measures in the interest of wildlife conservation	6.00	8.00	10.00	12.00	14.00	50.00
12	Providing basic infrastructure / Strengthening of NTCA at the Centre and establishing a monitoring lab in the Wildlife Institute of India	10.00	4.00	4.00	2.00	2.00	22.00
13	Independent Monitoring and evaluation of tiger reserves	0.50	0.50	0.60	0.60	0.60	2.80
TOTAL		165.50	174.50	229.60	242.60	259.60	1071.80



Annexure-III

CSS: Protection of Wildlife Outside Protected Areas (POWOPA)

1. Sponsoring Ministry Department.

Ministry of Environment & Forests

2. Statement of Proposal:

a) Whether Central Scheme or Centrally Sponsored? In case of new CSS or CSS with changed parameters, funding patterns etc., whether approval of full planning Commission has been obtained.

The format of the scheme is proposed as a Centrally Sponsored Scheme with provision for consultation for plan formulation and monitoring at MoEF. The Scheme had been included in the Tenth Plan with an outlay of Rs 60 crores, but could not be operationalised in the Plan.

b) Whether there are schemes with overlapping objectives and coverage in other Ministries and States? If so, the details of such schemes and the scope for integration.

There are no other such schemes

c) New Proposal/Modified/Revised Cost Estimate

An outlay of Rs 117.5 crores is proposed under this scheme during the Eleventh Plan period

d) Reasons and justification for proposal, indicating historical background, circumstances in which the need have arisen, whether other alternatives have been considered and what detailed studies have been made in regard to the proposal for establishing its need, its economics and other relevant aspects.

Description of the scheme and its objects:

Wildlife protection in multiple use areas is one of the components of the National Wildlife Action Plan (2002-2016) adopted by the Government. The objective is to provide adequate protection to wildlife in multiple use areas, such as farm lands, waste lands, wet lands, coastal habitat etc.,

that form corridors linking up the protected areas and providing for genetic continuity between and among them.

India has a network of 96 National Parks and 509 Wildlife Sanctuaries in the different States harbouring major flagship and endemic flora and fauna. However, the Protected Areas (PAs) can still be termed as discreet isolated patches of forests managed exclusively for wildlife/biodiversity preservation and many important habitats still exist in the rest of the forests, which require special attention for conservation for ensuring sustainability of the populations. Habitats of sandalwood, red sanders, shola forests of Southern Tropical Montane forests, alpines of Himalayan region, elephant habitats including corridors connecting protected areas, southern tropical rain habitats, tropical swamps, mangroves within forests in Sundarbans etc, are some of such habitats existing in the forests outside PAs. The habitat in these areas is being depleted due to various reasons, as will be discussed later. The result is that even though the animal habitat within the PAs is being scientifically managed, the lack of such attention in adjoining areas, is leading to fragmentation of habitat and loss of animal corridors. The problem is compounded by the fact that though a dedicated protection machinery is in place within the PAs and the wild life therein is adequately protected, wild life found outside such protected areas is still vulnerable. Here, protective vigilance is far too inadequately organized and managed and very poorly equipped. In fact, it can easily be said to be non-existent in most parts. These areas are also the staging place for growing number of incidences of man animal conflict. Hence animals in the areas outside PAs, often fall prey to poachers' greed or to cultivators' ire whose property or livestock they happen to damage. The skins and other articles derived from poached animals are often smuggled out of the state/country, especially when the animal is a rare and endangered one, which fetch a high price. While endangered species of wild animals and birds are accorded full legal protection under national and international law and conventions against such illegal hunting and from trade or commerce in their derivatives, it is often a lack of effective organization and coordination between PA management and the Forest Department machinery outside the PAs, which is responsible for the decline in their numbers. It is with a view to address these problems that this scheme is proposed.

The proposed scheme would have the following components:

1. Habitat improvement including regeneration, water conservation, salt licks, check dams, fire protection, education/interpretation including signages, etc.

2. Wildlife conservation in areas outside notified Protected Areas, but forming important animal habitats and corridors.
3. Mitigate man-animal conflicts through adequate and expeditious payment of compensation for loss of life and damage to property.
4. Prevention of poaching and control of illegal trade in wild life, its derivatives and parts to synergise similar efforts inside Protected Areas.
5. Census and Management Planning.
6. Association of communities and education/awareness programme.
7. Provision for entry point activities and village eco-development interventions for neighboring communities.
8. Infrastructure like patrolling camps, communication systems, arms and equipments for protection staff, etc according to the requirement.
9. Periodic monitoring and evaluation studies including establishment of database.
10. Education and awareness campaign for the protection of Wild life and their habitats.

Justification for the Scheme

Over the years, the management of PAs has improved tremendously due to the technical and financial assistance provided by the Government of India under the Centrally Sponsored schemes viz., Project Tiger, Project Elephant and Development of National Parks & Sanctuaries. The 2 CSS being implemented earlier viz. Eco-Development in and around Protected Areas and Beneficiary Oriented Tribal Development Scheme were merged with the CSS Development of National Parks & Sanctuaries, however, with no substantial increase in budgetary allocation. Hence all the funds being provided to the States under the CSS are focused on the conservation of habitat and wildlife within the PAs.

The present forest cover in the country is 20.64 % as per the State of Forest Report 2003 (**Annexure-III**). However, the Protected Area network covers only 4.74% of the geographical area of the country with most of the PAs forming a part of the forest area. Territorial Forest Divisions have different management objectives such as harvest and transport of commercially important timber, non-timber forest species, raising plantations, management of wood based industries, etc. Thus general forest administration deals with the forest protection and management with emphasis on people's participation and improvement of

productivity. Strengthening the natural resource base of these forest areas, though an important activity, often does not receive the required stress for proper habitat management for the wildlife present in these areas. This is largely due to paucity of financial support in the State Plans for this activity.

In addition there are a large number of important wild life habitats such as aquatic ecosystem (both marine and fresh water) grass lands, scrub lands, deserts etc., which provide protection to rare and endangered fauna in the country. In the fringe areas of the National Parks and Sanctuaries wild animals cause extensive damage to farm crops and also attack human beings injuring and killing them occasionally. Increased incidents of livestock predation and loss of human life by large carnivores has alienated the communities in such areas and villagers frequently resort to revengeful acts mostly in connivance with poachers and illegal traders. In the circumstances, it is desirable that a specific programme for conservation of these areas for better habitat management and conservation of species be launched.

Description of the manner in which the scheme is proposed to be implemented including the mention of agency through which the scheme will be executed.

Being a Centrally Sponsored Scheme, the Central Government would provide 100% assistance to the State Government/ Union Territories for non-recurring items in areas harbouring endangered species and 50% assistance for recurring items of expenditure with a matching share coming from the respective State Govts. The executing agency for the scheme will be the territorial Divisions of the State Forest Departments under the supervision of the Chief Wildlife Warden of the respective State Government.

Schedule of programme and target date of completion

The implementation of the component will be taken up from the financial year i.e. 2007-08 in the Eleventh Plan period.

(e) If it is location specific basis for selection of location.

The Scheme will be implemented in the important forest areas of the country which lie outside the already notified PAs, but are important habitats and /or migratory corridors for the wild animals. On the approval of the Scheme the States will be directed to send site specific proposals.

(f) Has the proposal been included in the Five Year Plan and what are the provisions in the Five Year Plan and in the current annual Plan? Is any modification proposed?

Yes, the proposal was included in the Tenth Plan with an outlay of Rs. 60 crores. The Planning Commission had also accorded 'in principle' approval to the Scheme (Annexure II). However, the scheme could not be operationalised during the Tenth Plan.

(g) What is the estimated yield from the Project and what are the economic implications.

The benefits to be derived from the Scheme will largely be intangible benefits in the form of habitat conservation, protection of endangered species, rejuvenation of natural resource base for the benefit of the wildlife, as well as the local communities, amelioration of the climate, increased water resources, etc. Hence it is difficult to evaluate the economic returns, given the present methodologies for quantification of such moieties.

(h) In case of ongoing scheme/project present status and benefits already accrued to the beneficiaries may also be furnished.

Not applicable

(i) Have other concerned Ministries and Planning Commission been consulted and if so, with what results.

The Tenth five year plan, approved by NDC, for the scheme was Rs 60 crores. The Planning Commission had accorded in Principle approval for including this component as a Centrally Sponsored Scheme in the Tenth Plan period.

(j) Whether any evaluation has been done? If so, broad findings of such evaluation studies may be given.

The rationale of the suggestion emerged from the report of the Steering Committee of the Planning Commission for formulation of Tenth Plan which suggested that the increase in wildlife population outside the protected areas network would add a new dimension to the wildlife management outside protected areas and these corridors and zones of fringe wildlife populations needed to be developed. The strategy for the Tenth Plan suggested, *inter alia*, the following initiative for ecological security of our natural heritage:

Restoration of degraded habitats outside Protected Areas

The restoration and management of degraded habitats outside protected areas is a vital objective, both to provide sufficient habitat for spatial movement of spillover species outside PAs, and to provide biological resources needed by the local communities to reduce their dependency on Protected Area resources. This is also critical to the linking of PAs with effective wildlife corridors to provide for genetic continuity and prevention of insular wildlife populations.

(k) Has the proposal or its variant been gone into by any Committee, Departmental or Parliamentary, if so, with what result and what decision have been taken.

As in (j) above. The Department related Parliamentary Standing Committee on S&T, Environment and Forests

1. Programme schedule.

(a) Has the project/scheme been worked out and scrutinized in all its details?

The details of the scheme have been worked out. The items for which assistance is to be provided is given in **Annexure-IV**.

(b) What is the schedule for construction indicating the position separately relating to plant and machinery and civil works, raw materials, man power etc., together with year-wise phasing.

The civil works required will be as per the proposals sent by the States, but restricted to patrolling camps, quarters for frontline staff and other field requirements aimed at habitat improvement.

(ii) Whether physical and financial targets match with each other?

The specific proposals from the States would ensure matching physical and financial targets.

(d) What is the target date for completion and when will the expected benefits commence?

The scheme will be implemented during the Eleventh Plan period. The benefits are expected as soon the habitat improvement and anti poaching activities commence.

- (e) If the project involves dislocation of human settlements the resettlement costs should be included fully in the project cost. The resettlement Plan should also be indicated in the project implementation schedule. The resettlement cost may be worked out on the following basis:**

Not applicable

2. Expenditure involved.

- (a) What is the total expenditure (non-recurring and recurring): Indicate the position year wise and also whether any budget provision has been made and if not how it is proposed to be arranged. Has any expenditure been incurred already.**

The statement showing financial implications are placed at **Annexure-V**. No expenditure could be incurred so far.

- (b) Details of the scheme of financing clearly bringing out the financial obligations undertaken by the PSU/Ministry with or without the proposal under consideration. In other words, details of commitment on account of on going projects to be funded from internal resources of the PSU may be given in the EFC note along with the requirement and availability of funds for the project under consideration. In case of Schemes/programmes, Five Year Plan outlay for the Ministry/Department and commitments on the on-going schemes/programmes along with the requirement and availability of funds for the scheme/programme may be furnished.**

Not applicable

- (c) What is the foreign exchange component (separately for non-recurring and recurring expenditure)? What are the items of expenditure involving foreign exchange and expenditure on foreign experts? Has clearance of EAD been obtained and has availability of credit facilities been explored and if so, with what result?**

No foreign exchange component is specifically visualized.

- (d) Phasing of expenditure (non-recurring and recurring)?**

(i) On constant prices.

(ii) On completion cost (1(5)PF-11/96 dt.6.8.97).

(e) Reference date and basis of cost estimates of various components.

Not applicable

3. Reliability of cost estimates and other parameters.

(a) Has pre-project investigations being arrived out in details of area where changes in project parameters could be anticipated.

Not required

(b) To what extent cost estimates are firmed up.

Partially

4. Operational Capabilities

(a) Operational capabilities of PSU/Department Implementing Agency/Ministry to undertake the tasks required for the implementation of the proposal under consideration. For this purpose tract record of the PSU in respect of the project already implemented/under implementation may be highlighted and also steps proposed for ensuring timely execution of the project under consideration.

Not applicable

(b) In case of RCE proposal, variance analysis of cost increase due to price escalation, variation in exchange rates/customs and other statutory duties and levies, change in scope, under estimation, addition/alteration etc., is to be given.

Not applicable

(c) In case of containing Social Sector Schemes of:

(i) Estimate of committed liabilities at the end of previous plan:

(ii) Whether this has been transferred to State/non-plan head.

Not applicable

5. Add statement showing.

- (b) The number of posts required and the pay scales, together with basis adopted for staffing both in current year and future years (A separate proposal for creation of posts may be sent to JS (Pers.), Deptt. of Expenditure at least two weeks before the circulation of EFC Note).**

No new posts will be required. The States will, however, be urged to fill up the existing vacancies in the frontline staff of the Forest Department.

- (c) Expenditure on building and other works and its basis and phasing;**

An outlay of Rs 12.5 cr is proposed for Strengthening of Infrastructure and Communication as a non recurring expenditure and Rs 15.00 cr in recurring support for Maintenance of camps, quarters, roads, bridges, etc.

- (d) Expenditure on stores and equipment.**

An outlay of Rs 15.00 cr is proposed for maintenance of equipment. The equipment required within the scheme will be communication equipment, resource inventorying, arms and ammunition, etc

6. Viability.

Information is to be given if benefits accruable from the projects/schemes are quantifiable and can be translated in monetary term.

- (a) Financial IRR**

- (b) (i) At constant prices.
(ii) On completion cost basis.**

Not quantifiable

- 7. Whether Nodal Officer (Chief Executive for the project) has been appointed. If yes, give details about his status, past experience. In implementing such projects, number of years left for superannuation, etc.**

Additional Director General of Forests (Wildlife) and Director (Wildlife Preservation) is the nodal officer for the Scheme at GOI and the respective Chief Wildlife Wardens in the States.

For SFC proposals.

- 8. Date of approval of original cost or firmed up cost.**
Not applicable
- 9. Original or firmed up approved cost together with FE component.**
- (i) Fixed cost.**
 - (ii) Completion cost.**
- Not applicable
- 10. Present cost (Completion cost) together with FE component.**
Not applicable
- 11. Earlier project completion schedule.**
Not applicable
- 12. Revised project completion schedule.**
Not applicable
- 13. Brief reasons for time overrun in clear terms.**
Not applicable
- 14. Various analysis of increase in completion cost under:**
- (a) Escalation**
 - (b) Exchange rate variation.**
 - (c) Change in scope.**
 - (d) Statutory levies.**
 - (e) Addition/Deletion.**
 - (f) Under estimation.**
 - (g) Other (Specify).**
- Not applicable
- 17. Quantification of increase in cost on account of time overrun.**
Not applicable
- 18. Present status of physical progress of the project.**
Not applicable

19. Expenditure incurred and commitments made so far.

Not applicable

20. Effect of revision in capital cost estimates on cost of production and profitability with reference to earlier approved capital cost of the project.

Not applicable

21. Whether at the stage when funds to the extent of 50% of the approved cost were released the mandatory review of the cost estimates was done by the project authorities and the administrative Ministry? If so.

(a) The date when, as a result of mandatory review, project authorities and the administrative Ministry became aware that the cost of the project is likely to be exceeded by more than 5% of the originally approved cost due to reasons other than price escalation, exchange rate variations, statutory levies etc., and the date when RCE was drawn up and brought before EFC.

(b) A statement showing commitments made by the project authorities/Administrative Ministries regarding reliability of cost estimates, pre-project investigations, land acquisition completion schedule etc., and during the PIB meeting with regard to the project at the time of seeking proper approval and the status regarding their fulfillment.

(c) Have the reasons for the time and cost over run have been gone into thoroughly and responsibility fixed; if so, details so, details of decision taken in EC/QPR and future follow up action.

Not applicable

22. Whether the issue of cost and time over run been gone into thoroughly and responsibility fixed; if so, details of decision taken in EC/PQR and further follow up action.

Not applicable

23. For RCE proposals requiring CCEA approval, report/recommendation of the Standing Committee and Action Taken Report may be appended.

Not applicable

24. Whether on EFC Memo Financial Advisors concurrent comments have been obtained? If so details thereof.

Not applicable

25. Supplementary information.

The following mode of implementation of the Scheme is proposed:

1. Inventory of the existing biodiversity status and conservation value of the ecologically important area identified.
2. Identification of the factors contributing to the threat to the ecological integrity of the area.
3. Preparation of a management plan by the respective States for mitigating the factors so identified in consultation with the communities. Participation of the communities should be an integral part of the process and action plan. The management plan should indicate the non-recurring and recurring activities with quantum and cost structure.
4. Based on the management plan, Annual Plan of Operations will be obtained from the States, scrutinized and approved for release of funds. Items proposed for assistance should be indicated in the approval letter.

26. Points on which decision/sanction are required.

Approval of the Planning Commission is solicited for implementation of the Centrally Sponsored Scheme as per details in the above Memorandum, with a total proposed outlay of Rs.117.5 crores during the Eleventh Plan.



Annexure-IV

Forest Cover of India (sq km)

State/UT	Geographic Area	Forest Cover			Total	Percent of G.A.
		Very Dense Forest	Moderately Dense Forest	Open Forest		
Andhra Pradesh	275,069	23	24,356	20,040	44,419	16.15
Arunachal Pradesh	83,743	13,907	39,604	14,508	68,019	81.22
Assam	78,438	1,684	11,358	14,784	27,826	35.48
Bihar	94,163	76	2,951	2,531	5,558	5.90
Chhattisgarh	135,191	1,540	37,440	17,018	55,998	41.42
Delhi	1,483	0	52	118	170	11.46
Goa	3,702	0	1,255	901	2,156	58.24
Gujarat	196,022	114	6,231	8,601	14,946	7.63
Haryana	44,212	2	518	997	1,517	3.43
Himachal Pradesh	55,673	1,093	7,883	5,377	14,353	25.78
Jammu & Kashmir	222,236	2,102	8,395	10,770	21,267	9.57
Jharkhand	79,714	2,544	9,137	11,035	22,716	28.50
Karnataka	191,791	431	22,030	13,988	36,449	19.00
Kerala	38,863	334	9,294	5,949	15,577	40.08
Madhya Pradesh	308,245	4,000	37,843	34,586	76,429	24.79
Maharashtra	307,713	8,070	20,317	18,478	46,865	15.23
Manipur	22,327	720	5,818	10,681	17,219	77.12
Meghalaya	22,429	168	6,323	10,348	16,839	75.08
Mizoram	21,081	84	7,404	10,942	18,430	87.42
Nagaland	16,579	57	5,650	7,902	13,609	82.09
Orissa	155,707	288	27,882	20,196	48,366	31.06
Punjab	50,362	0	743	837	1,580	3.14
Rajasthan	342,239	14	4,482	11,330	15,826	4.62
Sikkim	7,096	458	1,904	900	3,262	45.97
Tamil Nadu	130,058	2,440	9,567	10,636	22,643	17.41
Tripura	10,486	58	4,988	3,047	8,093	77.18
Uttar Pradesh	240,928	1,297	4,699	8,122	14,118	5.86
Uttaranchal	53,483	4,002	14,420	6,043	24,465	45.74
West Bengal	88,752	2,303	3,742	6,298	12,343	13.91
Andaman & Nicobar	8,249	3,475	2,809	680	6,964	84.42
Chandigarh	114	1	8	6	15	13.16
Dadra & Nagar Haveli	491	0	145	80	225	45.82
Daman & Diu	112	0	2	6	8	7.14
Lakshadweep	32	0	12	11	23	71.88
Pondicherry	480	0	17	23	40	8.33
Total	3,287,263	51,285	339,279	287,769	678,333	20.64

Source: State of Forest Report 2003



ANNEXURE-V

ITEMS OF WORKS TO BE FINANCED

A. Habitat Management

1. Manipulation and regeneration of natural resource (food) base, including plantations of trees and fodder species
2. Fire protection, prevention of erosion and denudation, removal of unwanted species of flora, flood protection.
3. Augmentation of water supply, facilities for bunds, salt licks, dams, wells and for transportation of water and pumping of water.

B. Conservation of wildlife

1. Protection of wildlife, including measures to check poaching and improve vigilance,
2. Provision of rewards to informers for the control of poaching and illegal trade in wildlife, check posts, watchtowers, etc.
4. Veterinary facilities for the health and care of wild animals and for controlling diseases like Rinder's pest, FMD anthrax, creation of rescue camps for wildlife etc.
5. Translocation of wildlife including purchase of required equipment and medicines, and restocking of depleted areas.
6. Erection of physical barriers including electric fencing to protect crops, etc., from animal depredation.
7. Legal support for defending court cases.
8. Census of wildlife by aerial and/or ground survey.

C. Strengthening of Infrastructure and Communication

1. Improvement of communication, for the purpose of protection, purchase of vehicles, boats, etc., provision for fixed and mobile wireless sets, wireless, telephones and provision for arms and ammunitions, etc.
2. Construction works of roads and buildings for patrolling, supervision and accommodation of frontline staff.

D. Mitigating Man Animal Conflict

1. Compensation of depredation by wild animals. Insurance of life, crops and property against animal depredation.
2. The compensation to the Kith and Kin of the persons killed by wildlife within a reasonable periphery of the identified area.
3. Assistance would also be provided for constitution of awards, for exemplary work to the subordinate staff. Awards would be confined to subordinate staff upto the level of Assistant Conservator of Forests whereas certificate/citation/medals could be given to the officers above the rank of Assistant Conservator of Forests.

E. Eco-development Works

1. Silvipastoral development, raising of close-spaced fuel wood and fodder plantation of fast growing indigenous species.
2. Providing safe drinking water, solar cookers, biogas plants, etc
3. Horticulture suited to local conditions including cultivation of medicinal plants and other minor forest produce.
4. Farming of domestic animals like pigs and poultry, Apiculture, Sericulture and Pisciculture.
5. Setting up of cottage industries based on appropriate technology.



Annexure-VI

Proposed Components of the POWOPA Scheme and Financial Outlay for Eleventh Plan

A. Non recurring Expenditure

No.	Activity	Proposed Outlay (Rs in lakhs)
1	Habitat Management	2000
2	Conservation of wildlife	1750
3	Strengthening of Infrastructure and Communication	1250
4	Mitigating Man Animal Conflict	1000
5	Eco-development Works	875
6	Capacity building of staff and communities	500
TOTAL		7375

B. Recurring Expenditure

No.	Activity	Proposed Outlay (Rs in lakhs)
1	Maintenance of camps, quarters, roads, bridges, etc	1500
2	Maintenance of equipment	1500
3	Office expenses	375
4	Intelligence gathering	375
5	Support to eco-development works	250
6	Miscellaneous	375
TOTAL		4355

C. Total Recurring and Non recurring Expenditure

No.	Activity	Proposed Outlay (Rs in lakhs)
1	Non recurring Expenditure	7375.00
2	Recurring Expenditure	4355.00
TOTAL		11750.00



Annexure-VII

Eleventh Five Year Plan - Proposed Expenditure on Plan (Revenue) of National Zoological Park

S.No.	Annual Targets	Amount
1.	Upkeep of Zoo Animals & their enclosures for Conservation Breeding	
	A) Purchase of materials required for day to day maintenance and upkeep of animals, their feed and enclosures	Rs. 5.80Crores
	B) Purchase, maintenance & installation of machinery & equipments for the upkeep of animals viz Pressure Pump, Van for Ration Distribution, Forklift , Water Lifting Pump , Power Driven Saw etc.	
	C) Providing specials facilities to Zoo' inmates during winter & Summer Season viz. patera, agronet., Hessian Cloth, Air Cooler, Heater, Wooden Plate forms and other equipments etc.	
	D) Enrichment & maintenance of various enclosure & engagement of contractual labour therefore.	
	E) Providing solar fencing to various enclosure	
	TOTAL FOR UPKEEP	
2.	Conservation & Captive Breeding Of Endangered Spices	
	A) Animal exchange program with different Zoo	Rs. 0.10 Crores
	TOTAL FOR CONSERVATION & CAPTIVE BREEDING	
3.	HEALTH & HYGIEN	
	A) Purchase of equipments for Zoo' Hospital viz Semi Auto Analyzer , Hematology Analyzer & various Lab Instrument etc	Rs. 3.00Crores
	B) Construction of Hand rearing cage for animals & transportation cages	
	C) Purchase of medicines & drugs for animals	
	D) Various men, materials and equipments required for sanitation works including installation of electric incinerator, tractor, trolley & other equipments & instruments.	
	E) Maintenance of Lawns and Gardens to provide the natural environments (enrichment) to the Zoo animals & visitors.	

S.No.	Annual Targets	Amount
4	Education	Rs 0.50 Crores
	A) Printing of Guide Maps, Annual report, Brochure, Poster, Stickers & pamphlets	
	B) Preparation & installation of Signage's for Interpretation	
	C) Celebration of wildlife week , Van Mahaotsav & various educational events	
	D) Conducting of various educational seminar viz. teachers orientation programme, Keeper/trolley driver training etc.	
	E) Purchase of Books, periodicals & other equipments	
	Total (Education)	
5.	Research on Zoo' inmates	Rs. 0.10 Crores
	A) Conduction of various research program	
	B) Installation of various equipments Cameras, Binoculars etc to record the various activities of Zoo inmates	
	Total	
6	Visitors facilities	Rs 0.50 Crores
	A) Purchase / installation of equipment/ machinery viz. water cooler, view point, resting bench, sheds etc.	
	Total	
	Grand Total	Rs. 10.00 Crores

Annexure-VIII

Eleventh Five Year Plan - Proposed Expenditure on Plan (Capital) of National Zoological Park

S.No.	Annual Targets	Amount
1	Laying of New Drinking Water Pipe Lines to replace old pipeline to distribute water received from Delhi Jal Board .	Rs 0.50 Crores
2	Laying of New Water Pipe Lines to replace old pipeline for distribution of Bore well/tube-well water for cleaning of animal enclosures etc.	Rs 0.50 Crores
3	Laying of New Water Pipe Lines to replace old pipeline to distribute Unfiltered water received from CPWD for Horticulture requirements of the zoo.	Rs 0.50 Crores
4	Major repairs / Improvement / reconstruction of 54 old animal houses constructed at the time of setting up of the zoo.	Rs 5.00Crores
5	Laying of electric cables, distribution points, sub stations for electricity and providing fitting and fixtures in animal enclosures, street lights etc.	Rs 1.00 Crores
6	Construction of new residential building for employees in the National Zoological Park residential area to replace old outdated buildings to accommodate more employees in the same space.	Rs 10.0 Crores
7	Improvement and extension of the office buildings	Rs 1.0 Crores
8	Face lifting of the entrance to accommodate more visitors, Improved Ticketing facilities, Information Centre and visitor facilities like souvenir shop, Toilets, Drinking Water Points and Rest Sheds etc.	Rs 1.0 Crores
9	Improvement of car parking, construction of new canteen building, and providing visitor facilities in the zoo.	Rs 1.0 Crores
10	Construction of Quarantine building	Rs 0.50 Crores
11	Improvement of Commissary and Meat House to provide hygienic feed to the animals	Rs 0.50 Crores
12	Improvement of the Hospital Building and equipments to accommodate latest medical facilities	Rs 0.50 Crores
	TOTAL	Rs 22.00 Crore

Annexure-IX

Scheme: Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA)

The main objective of the Prevention of Cruelty to Animals Act (PCA), 1960 is to prevent infliction of unnecessary pain or suffering on animals. Accordingly, the Committee for Purpose of Control and Supervision of Experiments on Animals (CPCSEA) has been constituted under provisions of Section 15 of this Act. The Act provides for the duties and powers of the CPCSEA, and also penalties, in event of contravention of orders made, or conditions imposed by the Committee. The mandate of the Committee is to ensure that while conducting various types of experiments, in connection with medical research or education, animals are not subjected to avoidable pain or suffering. The CPCSEA functions within the ambit of the PCA Act, and Rules frame under it e.g. Rules for Breeding of and Experiments on Animals (Control and Supervision), 1998 as amended.

CPCSEA has been reconstituted on 19.10.2006 as a committee of experts from several areas, including medicine, veterinary science, pharmaceuticals, biotechnology, biostatistics, animal behavior and ethics. A total of 1010 institutions have been registered by CPCSEA and 360 CPCSEA nominees have been appointed to assist the Committee in its functions.

During the Eleventh Five year Plan it is proposed to step up the level of activities undertaken by CPCSEA in terms of

- ◆ Expansion in the coverage of Institutions, which are registered with CPCSEA;
- ◆ Emphasis on inspections of animal house facilities throughout the country;
- ◆ Appointment of larger number of nominees, who are on board the Institutional Animals Ethics Committees of various institutions;
- ◆ Imparting training to these CPCSEA nominees;
- ◆ Increasing the focus on public outreach by way of publications, media coverage and seminars, with special emphasis on the scientific community, which relies on use of animals in experimentation.

The proposed outlay for CPCSEA during the Eleventh Plan period is Rs 2 crores for the period 2007-2012

Annexure-X

Scheme: National Institute of Animal Welfare

Set up as a subordinate office of the Ministry of Environment and Forests, the objective of NIAW is to impart training and education in Animal Welfare on a diversified basis comprising, among other things, animal management, their behaviour and ethics. The aim is to create an enabling environment for fulfillment of the statutory requirements as laid down in the Prevention of Cruelty to Animals Act, 1960.

NIAW has been conceptualized as an apex body in the field of animal welfare and its broad mandate covers the need to improve animal welfare through education, research and public outreach. The Institute has been operational for ten months and the process of appointment of faculty is underway. The Institute is expected to evolve as a premier body with international stature, with participation of faculty / trainees from other countries.

The work of designing and running in – service and other short term courses training was assigned to EdCIL, a public sector enterprise under the Ministry of Human Resource Development, on turnkey basis. The courses have commenced from 2.1.2006 and in-service courses of duration of one/two/four weeks are underway as per schedule. 22 courses have already been conducted upto October 2006. The courses have been generally appreciated by the participants. Suggestions for improvement have also been received, which are being considered for implementation. The turnkey management of training programmes by EdCIL is being extended by one year for the period 2006-07.

A Steering Committee has been set up under the Chairmanship of Secretary (E&F) to review the modalities of operation of NIAW and to facilitate constant review of the functioning of the Institute. Apart from officials of the Ministry, the Steering Committee comprises of DG (CSIR) or his representative, Member Secretary (CZA), Animal Husbandry Commissioner, Ministry of Agriculture and a representative of the Ministry of Information and Broadcasting.

The first meeting of the Steering Committee on NIAW was convened on 12.10.2006. Apart from deliberating on the status of NIAW, discussions were held regarding the academic role of the institute and thematic contents of training programme. Important stake holders in the training programmes were also identified, including municipal officials, animal welfare organizations, animal readers, transporters, faculty of veterinary colleges, animal traders, animal trainers, employees of slaughter houses and SPCA inspectors.

The activities of the National Institute of Animal Welfare are expected to grow over the period of the Eleventh Five Year Plan. In the initial estimates, a provision of Rs 20 Crores had been sought for NIAW for the period 2007-2012, which has been scaled up to Rs 28.50 Cr on further examination, as follows:

Additional Construction (Civil)

During the inspection of facilities at the campus of NIAW it was observed that in order for the Institute to commence functioning as an apex training Institute, further construction was essential, largely on account of the limited hostel facilities. There is at present a single hostel with community facilities, with 30 rooms, on twin sharing basis.

Accordingly there is an immediate requirement for an independent hostel for women trainees (the lady trainees are presently housed in the residential block meant for faculty use) and a separate hostel (comprising independent rooms with attached facilities) for in service officials. It may be mentioned that the campus is remotely located and is not well connected, as public transport facilities are not available. Residential accommodation is an essential aspect without which further growth of activities would be adversely affected.

The matter has been examined with the Civil Construction Unit of the Ministry of Environment and Forest who have advised that apart from consultancy charges of approximately Rs 40 lakhs in the Eleventh plan period, provision of at least Rs 8 crores would be required for the two new hostel units.

The flooring in the buildings in the campus is of cement, which is difficult to clean and maintain. Tiled floors are also required for proper hygiene in the hospital premises. It is thus proposed to provide for tiled floors at an approx cost of Rs 1 crore.

In view of the serious water problems faced this year, there are plans for an independent storage tank for drinking water and Reverse Osmosis System at the campus for which an amount of Rs 50 lakhs has been earmarked.

Thus a provision of approximately Rs 9.9 crores would be required on account of new construction, apart from modifications and provision for independent drinking water supply through RO system.

Electrical Works

The experience during 2006-07 has been that power supply to NIAW has been woefully inadequate and erratic. Hence, apart from provision of back up DG sets, a proposal has been mooted for supply of electricity to NIAW through the industrial grid, the feasibility of which is being explored. A provision of Rs 20 lakhs is being proposed for this activity.

Provision of furniture, furnishings and equipment

Details are as follows:

	<i>Rs lakhs</i>
(i) ACs in Class Rooms	12
(ii) ACs for existing hostel and new hostels	20
(iii) Medical equipment for Animal Hospital & Training	50
(iv) Teaching Aids and communication (PBX, Public Address system, Computers, Internet Connectivity, Electronic Boards etc.)	50
(v) Sports equipment & other recreation facilities	5
(vi) Furniture/furnishing in two new hostels	200

Thus a provision of approx Rs 3.37 cr is required for furniture, furnishings and equipment.

Maintenance

(i) Electrical work/Sub Station Maintenance/DG Set	250
(ii) Civil work including repairs	150
(iii) Horticulture	25

Thus Rs 4.25 cr would be required on account of maintenance.

Provision for Animal Hospital (from 3rd year of Eleventh Plan)

An amount of Rs 3 Cr has been provisioned for running of the animal hospital, which is expected to be operationalised in the 3rd year of the Plan. The

expenses are expected to be on account of attendants for animals, vets/paravets, feed, fodder, medicines, running expenses etc.

Administrative Expenses including Turnkey Management, salaries, OE etc

Turnkey management of facilities by EdCIL for the period 2007-08 is expected to cost approx. Rs 43 lakhs

A provision of approx Rs 2.6 Cr has been made towards salaries of faculty and staff, who are expected to be inducted in a phased manner from 2006-07 onwards. They are expected to overlap with EdCIL in order to ensure a smooth transition.

While a few of the activities indicated below are already covered in the turnkey management arrangement with EdCIL which would cover at least part of the first year of the Eleventh Plan period, others expenses are outside this arrangement, and need to be provided for. Estimates for these heads of expenditure have been provided as follows:

	<i>Rs lakhs</i>
Various staff allowances / advances etc	25
Domestic Travel expenses (faculty and trainees)	30
Office Expenses (including AMC for equipment)	150
Printing expenses/Publications	20
Advertisements/ outreach programmes	25
Campus Security	15
Other charges (water, electricity, telephones etc)	160
Foreign Travel	20
Other professional services (guest faculty /legal services etc)	10
Workshops / Seminars	20

Thus a total of Rs 475 lakhs would be required for various administrative expenses.

The aggregate requirements for NIAW for the Eleventh Plan period are therefore estimated at Rs 28.50 Cr.

Annexure-XI

Details of Activities undertaken through Plan Funds available with AWBI

1. Propagation of Humane Education

One of the main functions of the Board is the propagation of Humane Education and creating awareness about compassion and kindness for animals. The scheme is categorized under three broad headings.

i) Publications

Printing of booklets, journals, leaflets and such other publications and publicity materials and then circulation to reach maximum number of people.

ii) Visual Publicity

Bringing out posters, banners, hoardings, films, exhibitions etc about showing compassion to animals, awareness about Animal Welfare and cruelty etc.

iii) Field workshops

Conducting camps, seminars, training courses, awareness programmes and giving Awards to outstanding acts of rescue operations.

The scheme of Humane Education is a direct project of the Board and considering the importance, top priority is given for conducting this scheme.

Other activities

Training course on Animal Welfare, bringing out quarterly Journals in English and Hindi and "AWBI Newsletter" etc, posters, pamphlets and other publications, production of films, cassettes, slides, holding of exhibitions, observance of World Day for Animals, Animal Welfare Fortnight, holding seminars/workshops, press meets etc.

2. Maintenance of Rescue Home for Animals and provision of water troughs/facilities

During the last 5 years, a number of Pinjarapoles/Gaushalas (old age homes for animals) have been recognized by the Board. Many of these organizations have vast area of land for maintaining the stray and abandoned cattle. The Board provides financial assistance to the organizations for construction of shelters for the animals.

Now that there is a separate scheme for the Construction of Shelter houses, the Board will restrict the plan grants only for the maintenance of Rescue Homes/Shelters including repairs under the Plan account and for construction of water troughs thereby improving water facilities etc.

3. Veterinary Hospitals including Rescue Operations

The activities under this scheme comprise of purchase of medicines, veterinary equipment etc and rescue of animals, which are stray and abandoned, or animals involved in accidents etc. Encouragement of more AWOs for infrastructure development for carrying out ABC Programme.

4. Establishment charges and Revitalising old Animal Welfare Organisations and starting new ones

The Board has been encouraging formation of new AWOs/SPCAs in all Districts in different States of the country. Initial grant of Rs.10, 000/- is granted to the new organizations for establishing and running of the organizations. In addition, grant is sanctioned for meeting establishment charges of the field staff of the AWOs.

5. Conferences

As part of the Humane Education Programme, the AWBI had been holding conferences at National level from time to time. More conferences are contemplated for bringing in awareness and dissemination of information and assessing the merits and demerits of the programme and also the benefits to the Society.

6. Board Headquarters

Capital expenditure at Board Headquarters of non-recurring nature such as purchase of Assets/Equipments is met under this heading.

7. Research and Development

This scheme involves holding research studies on various aspects of animal welfare to find out methods by which cruelty to animals can be eliminated by developing designs and modernization of equipments with least discomfort to the animals like modified carts, pneumatic wheels / tyres, yoke etc.

8. Model Animal Welfare Centre

The AWBI has been taking efforts for acquiring land from the Revenue authorities in Chenglepet District in Tamil Nadu where the Animal Welfare Centre is to be set up. This project is proposed to be taken up as soon as the land is made available.

9. Special Projects

The AWBI has undertaken special projects to:-

- a) improve functioning of Pinjarapoles and Gaushalas to make them economically viable and ecologically sustainable units by making Vermicompost, Biogas draught power equipments and non-conventional energy harnessing .
- b) Integrate various modes of mass communication and establish new methods of public awareness.
- c) Train gaushala personnel within two years under the modernization scheme of gaushalas.
- d) Relocation of monkeys from Delhi to M.P as per the directions of Hon'ble Supreme Court which could be extended to other Metros / cities where monkey menace is very high.

10. Investigation

This is to increase the effectiveness of SPCA Inspectorate system by upgrading investigation techniques facilitating them with proper inputs for undertaking investigation and increasing effectiveness of prosecution. The regulatory activities being undertaken by SPCA Inspectors will thus be strengthened and lead to lessening cruelty on animals.

Trainers who have undergone intensive training in the field of Animal Welfare are spread all over the country. Investigation activities are to be undertaken by them with the aim of lessening the cruelty to animals and get the offenders punished.

11. Design Development

This refers to the issue of designs on wheel, body and structure in the Draught Animal Power utilisation. The overall objective is Animal Welfare. The design standards will be established in conjunction with Central Institute for Agricultural Equipments, Bhopal and similar institutions.

It will be in pursuance of AWBI Policy for promoting Draught Animal Power and harnessing non conventional energy while also ensuring Animal Welfare.

12. Model Gaushala

The AWBI intends to strengthen Gaushalas/Pinjarapoles movements. The AWBI will aim at conversion of existing Gaushalas into Model Gaushalas, which will eventually become self reliant and viable with production of vermicompost, panchgavya, bioenergy, organic farming. More Bio-gas plants are to be set up in the organizations in a few states with a view to bring about catalytical transformation. Zilla Parishads and other local bodies are encouraged to take up Gaushala activities in their respective areas. Model gaushalas to act as training centers for farmers to harness full potential of BIO MASS

The Board will support large Gaushalas to become Model gaushalas. The gaushalas may consider the bottling of methane gas and making solid carbon-di-oxide for commercial use.

13. Special Scheme for maintenance of rescued cattle

The Board has been sanctioning grants for the special scheme of maintaining cattle rescued from illegal transportation/slaughter houses and experimental animals used in the laboratories.

14. Centre for Environment Awareness

The Animal Welfare Board of India in collaboration with TANUVAS (Tamil Nadu Veterinary University and Agricultural Sciences), Chennai, is planning to have an Animal Welfare Training Institute (Centre for

Environmental Awareness) as animal welfare is included in the curriculum of veterinary colleges by the Veterinary Council of India (VCI) as an independent subject. In the above center, the Board proposes to concentrate on training activities aimed at Environmental awareness, Model Gaushala and Animal Welfare issues. This will strengthen our Humane Education activities and pave way for synergy between AWBI and veterinary Institutions. It will concentrate on Human Resource Development in the Animal Welfare Sector.

15. State Advisory Boards for Animal Welfare

The 33rd General Meeting of the Board held in July 2006 has resolved that every possible efforts will be made to establish/revive the State Animal Welfare Boards in every state and make them work effectively. Some States have already formed State Animal Welfare Boards and some are in the process of constituting such Boards.

16. Other measures

During the last 5-6 years, the Board had to incur expenditure on items such as transport of Rescued Circus Animals, Mobile Animal Clinic at Headquarters, AWOs Inspections/activity tours, Legal fees/expenses etc. The expenditure in this regard is on the increase as the awareness on animal welfare has increased and more organizations are actively functioning.



Annexure-XII

Description of Use of Non Plan Funds available with AWBI

1. Establishment Charges

The recurring expenditure incurred by the Board on the salary and allowances of the establishment and expenditure on medical reimbursement, House Building Advance, Festival Advance, vehicle advance, LTC of staff, Remittance of Board's Contribution to CPF Account come under this head.

2. Traveling Allowance

Traveling expenditure of Chairman, Members for attending the meetings of the Board and staff for administrative tours are booked under Non-Plan.

Under the provisions of the AWBI (Admn) Rules, 1962, the Board's General Body Meetings should be held twice and three Executive Committee Meetings are to be held before the close of the financial year. The Board Members are entitled to travel by air. Hence, more expenditure is envisaged on traveling allowance of Members.

3. Office Expenses

This heading comprises of the expenses towards rent, rates and taxes, telephone charges, postage, electricity, stationery, printing, repairs, annual maintenance charges of assets, security services, meeting expenses, audit fees and other office expenses.

The Office Building of the Board which was constructed more than 5 years back is in need of minor repairs and painting which is provided for in this outlay.

4. Retirement Benefits to Staff

The Board does not receive a separate allocation of budget for making payments towards retirement benefits viz. leave encashment and retirement gratuity. Hence this is included in the Non-Plan account of the Board. During the Eleventh five year Plan, three staff members are retiring in the years 2007-10. Provision for the same has been made therefore in this Outlay.



Annexure-XIII

Description of Criteria for disbursement of Grants from Plan funds of the AWBI

The tables below describe the criteria used for the disbursement of Plan funds available under Component Heads 2,3,4 of Table 3 in the main report.

Category 1: The revised criteria for sanction of regular grants for both large and small animals:

Number of animals sheltered	Grant for Small animals in rupees	Grant for large animals in rupees
Below 25	Nil	Nil
26 to 50	Nil	30,000/-
51 to 100	10,000/-	40,000/-
101 to 200	20,000/-	50,000/-
201 to 300	30,000/-	60,000/-
301 to 400	40,000/-	70,000/-
401 to 500 (and above for small animals)	50,000/-	80,000/-
501 to 750	-do-	1,00,000/-
751 to 1000	-do-	1,25,000/-
1001 to 1250	-do-	1,50,000/-
1251 to 1500	-do-	1,75,000/-
1501 to 1750	-do-	2,00,000/-
1751 to 2000	-do-	2,25,000/-
2001 to 2500	-do-	2,50,000/-
2501 to 3000	-do-	3,00,000/-
3001 to 3500	-do-	3,50,000/-
3501 to 4000	-do-	4,00,000/-
4001 to 4500	-do-	4,50,000/-
4501 to 5000 and above	-do-	5,00,000/-

Category 2 – The revised criteria for animals rescued/treated and the grant to be sanctioned is as under:

Number of animals rescued/treated	Grant in rupees
Up to 500	Nil
501 to 1000	10,000/-
1001 to 1500	20,000/-
1501 to 2000	25,000/-
Above 2001	30,000/-

