

MEE Team-wise Report

S. No.	MEE Team No.	MEE Team (Chairman & Members)	Region	State	Name of PA	MEE Year	Page Index
1.	11.	Dr. V.K. Melkani	Eastern	Jharkhand	1. Udhwa Lake Bird WLS	2015-16	3-19
2.			Eastern	Jharkhand	2. Palkot WLS	2016-17	20-37
3.		Dr. Vibhu Prakash	Eastern	Odisha	3. Gahirmatha (Marine) WLS	2008-09	39-52
4.			Eastern	Odisha	4. Chandaka Dampara WLS	2009-10	53-67
5.		Dr. Jeet Ram	Eastern	Odisha	5. Chilika (Nalaban) WLS	2012-13	68-87
6.			Eastern	Odisha	6. Hadgarh WLS	2012-13	88-103
7.			Eastern	Odisha	7. Debrigarh WLS	2015-16	104-125
8.			Eastern	Odisha	8. Kotagarh WLS	2015-16	126-141
9.			Eastern	Odisha	9. Lakhari Valley WLS	2015-16	142-159
10.			Eastern	Odisha	10. Kapilash WLS	2016-17	160-183

JHARKHAND

1. UDHWA LAKE WILDLIFE SANCTUARY, JHARKHAND MEE Year (2015-16)

Management Strengths

1. The sanctuary is on the migratory route of various bird species and is one of the most important wetlands of the eastern region of the country.
2. It is an important spot for conservation of biodiversity, particularly endangered, threatened and rare animal and plant species.
3. It is very good tourist spot in winters. It is a destination for day tourists. Thus, it provides employment opportunities for local residents.
4. Many have been EDCs established in the villages on the fringe of the sanctuary. Some EDCs, such as the ones established at Kistopur and Bagpinjara, are help the Forest department in controlling the menace of illicit poaching.

Management Weaknesses

1. During the construction of the Farakka barrage, in 1956, the private lands that fell in the area that is presently notified as the sanctuary were submersed and were acquired by the authorities. Although compensation was paid in many cases, some land owners were dissatisfied. They protested against the acquisition on the ground that the compensation was unpaid/partially paid. Subsequently the area around the sanctuary was occupied by many illegal migrants from Bangladesh. Whenever water recedes, nearly 150 ha of the bed of Berhail Lake is cultivated by the original owners (20%) and Bangladesh migrants (80%). These illegal cultivators transport their men, material and agricultural produce through the sanctuary in boats.
2. The sanctuary area is not well demarcated, and some original owners, who still contest the compensation paid to them, have continued to occupy some patches of the sanctuary. As mentioned in the foregoing, illegal migrants from Bangladesh cultivate a portion of the sanctuary when water recedes during summer.
3. As the MEE team moved about in the sanctuary, it was found that fishing is rampant in the area. Any number of bamboo structures, fishing nets, fishermen's boats, small tents and other camping equipment are to be found in the sanctuary. Illegal fishing in sanctuary is a source of disturbance, and the Forest Department is not equipped to counter this menace.
4. The headquarters of the Range Officer in charge of this sanctuary is at Giridih, which is 300 km away. In addition to this sanctuary, the Range Officer manages two more sanctuaries.
5. The state of Jharkhand has not recruited Foresters and forest guards in the last two decades. Many posts are lying vacant, and some of the incumbents are not fit enough to carry out the rigorous work of forest protection.
6. None of the personnel, up to the Range Officer, manning this sanctuary have been trained in wildlife management. They do not have the skills needed to understand animal behaviour, nor are they conversant with animal signs.
7. Siltation, spreading of water hyacinth and infestation with weeds are the threats faced in management of the birds. Soil conservation works need to be planned in consultation with experts and implemented.

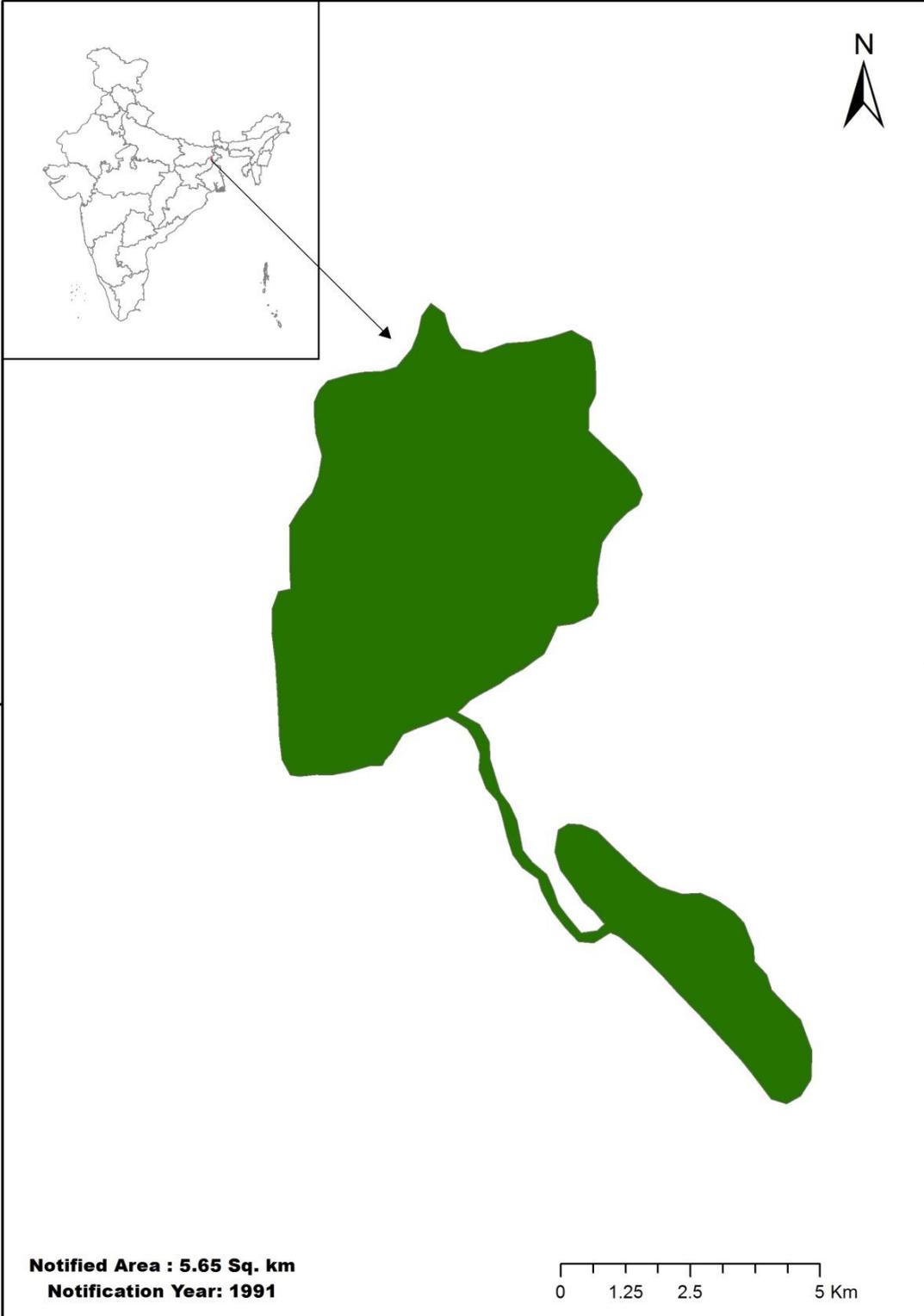
Actionable Points

1. The sanctuary has been notified under section 18 of the Wildlife (Protection) Act 1972, and the final notification under section 26 of the said act is still pending. Since the Farakka barrage authorities have not fully compensated the original land owners, the Chief Wildlife Warden, Bihar, in consultation with the Collector, Sahibganj, may consider admitting some rights to cultivation and fishing in certain portions of the sanctuary. The portion of the sanctuary where these rights are admitted can become a conservation or community reserve or community reserve. We can take people on board, which will certainly help conservation.
2. An exclusive wildlife range should be created for the management of this sanctuary. In addition, a protection squad may be formed for collection of intelligence and aggressive patrolling in the area.
3. It is learnt that the staff selection board of Jharkhand has initiated the process of recruiting 2200 forest guards. This process may be expedited and a crash training programme organized.
4. The response of the EDCs was found to be quite positive. The Forest Department should take a more proactive role in creating opportunities for generating income for these groups. In many water-logged areas, *Corchorus* is grown, and the cultivators extract raw material for ropes from this plant. They may be trained in adding value so that they can manufacture and market jute bags, etc.
5. Ponds are created in private lands using EDC funds, with assurances from the land owners that they will permit the farmers of the adjoining lands to use the water for cultivation. The design of these ponds needs to be improved.

6. All seasonal land use patterns can be obtained from satellite imagery. This will help resolve the dispute and conduct a survey to fix the sanctuary boundary. Help should be solicited from the Revenue Department for fixing the sanctuary boundary and providing alternative livelihood options to the communities.
7. Adequate funds should be provided for developing infrastructure, habitat management, ecodevelopment and ecotourism. This will go a long way in improving the livelihood options of the families residing on the fringes of the sanctuary, which will, in turn, earn their support and help the management.

Udhwa Lake Bird Sanctuary

88°0'0"E



Notified Area : 5.65 Sq. km
Notification Year: 1991

0 1.25 2.5 5 Km

88°0'0"E
 भारतीय वन्यजीव संस्थान
Wildlife Institute of India

1. Context

1.1 Are the values of the site well documented, assessed and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Values not systematically documented, assessed or monitored.	Poor		Management Plan 2005-2016, DFO report	1. The values of the sanctuary is well defined in the management plan. 2. The sanctuary is recognised as Dots IMR of Birds and one of the four IBA in Jharkhand, 3. The sanctuary is occupied by large number of wildlife species which are disturbed by several human settlements.
Values generally identified but not systematically assessed and monitored.	Fair			
Most values systematically identified and assessed and monitored.	Good	✓		
All values systematically identified and assessed and monitored.	Very good			

*Values would also include geo-morphological, historico-cultural and faunal and floral species.

1.2 Are the threats to site values well documented and assessed?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats not systematically documented or assessed.	Poor		Management Plan, DFO Report	1. The threats like poaching, fishing, cultivation in sanctuary when water recedes ,etc are documented and assessed periodically. 2. Nearly 107 species of local and migratory birds are impacted due to these threats.
Threats generally identified but not systematically assessed.	Fair			
Most threats systematically identified and assessed.	Good	✓		
All threats systematically identified and assessed.	Very good			

* This assessment should be based on number, nature and extent of threats. Threats within and outside PA should both be considered. Impacts, if any on the population abundance of key species may be indicated in the remarks.

1.3 Is the site free from human and biotic interference?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
The site has extensive human and biotic interference.	Poor	✓	Management Plan, DFO report and Field Visit	1. The site is surrounded by more than 24 villages and hamlets 2. The villagers cultivate in summer when water dries up. 3. The illegal fishing is found to be in practice and poaching is also reported. 4. The lake water is also drained for cultivation. 5. The Udhwa Nala which connects Lakes with Ganges is also used for fishing and cultivation.
The site has some human and biotic interference.	Fair			
The site has little human and biotic interference.	Good			
The site has no human and biotic interference.	Very good			

*This assessment should be based on existence of human settlements/ villages; livestock grazing, cultivation, encroachments etc, resource extraction/ livelihood dependence of local communities and should reflect the overall interference due to all the above factors. Number and size of human settlements/ enclaved villages and their impacts on the site may be indicated in the Remarks.

2. Planning

2.1 Is the site properly identified (NP/WLS) and categorized (in terms of zonation) to achieve the objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not identified correctly or categorized.	Poor		Management Plan, DFO report.	1. The site has identified Core zone, Buffer cum Tourist Zone and Eco development zones. 2. The area up to 10 kms from the periphery of the sanctuary is proposed as Eco sensitive zone. 3. The Management plan has the prescription for all the zones prescribed nearly 10 yrs ago. The plan expires in 2015-16. The new plan should be more broad based and must be prepared in time, using the latest guideline of Wildlife Institute of India.
Site identified correctly but not categorized.	Fair			
Site identified correctly but not systematically categorized.	Good			
Site identified correctly and systematically categorized with proper zonation plans.	Very good	✓		

Management prescriptions for various zones (Core, Buffer, Tourism etc) may be carefully assessed.

2.2 Does the site have a comprehensive Management Plan?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No relevant Management Plan in place.	Poor		Management Plan(2005—2016)	1. The site has a management Plan which is expiring in one year. 2. The new Management Plan should cover the present day need which should be prepared using the methodology as prescribed by WII. The new plan should deal with all the threats and the possible solutions.
Management Plan exist but not comprehensive.	Fair			
Site has a comprehensive Management Plan.	Good	✓		
Site has a comprehensive, science based Management Plan prepared through a participatory process.	Very good			

Is the Management Plan consistent with WII Guidelines or not? The extent to which the concerns of the stakeholders, if any have been incorporated in the Management Plan may be commented upon.

2.3 Is the Management Plan routinely and systematically updated?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No process in place for systematic review and update of Management Plan.	Poor		Management Plan, DFO report.	1. The current MP was never updated as a routine. However, prescriptions were modified whenever need arose.
Management Plan sometimes updated in adhoc manner.	Fair	✓		
Management Plan routinely and systematically updated.	Good			
Management Plan routinely, systematically and scientifically updated through a participatory process.	Very good			

2.4 Does the site safeguards the threatened biodiversity values?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Sites does not safeguard the threatened biodiversity values.	Poor		MP. DFO report, Other literatures, Field Visits	1. The site is potential Ramsar Site and safeguards nearly 107 Species of local and migratory birds. 2. It has 8.15% of known Indian Bird diversity. 3. The site supports 4 near threatened and 02 Vulnerable bird Species as per IUCN Red List. 4. The management undertakes patrolling through squads. It has also developed system of intelligence collection. There is a system of inter departmental coordination. which is working satisfactorily.
Sites safeguards a few threatened biodiversity values.	Fair			
Sites safeguards a large number of threatened biodiversity values.	Good	✓		
Sites safeguards all threatened biodiversity values.	Very good			

* Remarks need to elaborate on the kind of safeguards and how they work or are intended to work

2.5 Are stakeholders given an opportunity to participate in planning?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little, if any opportunity for stakeholder participation in planning.	Poor		DFO report, Field Visits, Interaction with villagers.	1. The old plan has no such prescription. It is expected that new plan will have sufficient insight of experiences and workable solutions.. 2. The villagers do participate in regulation of fishing and illegal cultivation.
Stakeholders participate in some planning.	Fair	✓		
Stakeholders participate in most planning processes.	Good			
Stakeholders routinely and systematically participate in all planning processes.	Very good			

* The result of participation must show in the field and not merely reported as a routine exercise. Further, is there a system/scope of putting the draft Management Plan in Public Domain in place?

2.6 Are habitat restoration programmes systematically planned and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Habitat restoration programmes are entirely adhoc.	Poor		Management Plan, DFO report, Field Observations	1. The proper habitat restoration programme like plantation of fruit bearing trees, Acacia etc is not yet in place. 2. The schemes to stop eutrophication are yet not started. 3. The PA takes up regular removal of water Hyacinths which covers the water body frequently.
Limited planning and monitoring programmes are in place for habitat restoration.	Fair	✓		
Habitat restoration programmes are generally well planned and monitored.	Good			
Habitat restoration programmes are thoroughly planned and monitored.	Very good			

* This assessment should be primarily based on habitat management programmes in relation to habitats for species that are threatened (IUCN categories), are habitat specialists, subjected to seasonal movements, wide ranging with emphasis on the breeding and rearing habitat and may include factors such as food, water, shelter (all connotations).Habitat structure, composition, unique patches of vegetation and sensitive sites, sources of water and their distribution are integral. Corridors within buffer zone are critically important. For example, all riparian habitats. Have these been addressed? Is their a planning process in place? What is the extent of 'invasive species in the Site? Are there any measures to reduce/ remove them? Have these been successful?

2.7 Does the site has an effective protection strategy?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Site has no protection strategy.	Poor		MP, DFO report, APOs, Field Visits	1. The major threats like poaching and fishing during winter season are minimised through patrolling in motor boats. 2. If required \, the patrol party halts in the boat itself. There are no other camping facilities inside the sanctuary area. 3. The infra-structure and man power support is meagre (2 motorboats, 2 paddle boats and 4 motorcycles). 4. The police support has been forthcoming.
Site has an adhoc protection strategy.	Fair			
Site has a comprehensive protection strategy but is not very effective.	Good	✓		
Site has a comprehensive and very effective protection strategy.	Very good			

* This assessment takes *inter-alia* into account the nature of threats, the number and location of patrolling camps and foot and mobile patrolling, needs that relate to available manpower, terrain difficulties, practicability of area coverage, readiness to contain specific threats with necessary support and facilities. Is there any coordination with other wings of the Forest Department/ Police/ Customs etc? Are these effective?

2.8 Has the site been effective in the mitigation of human-wildlife conflicts?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Human-wildlife conflicts are rampant.	Poor		MP, DFO report, Field Visits	1. The staff is not trained in wildlife, the local farmers utilise the uplands of the lake for cultivation during summer, the heavy fishing is practiced and even lake water is drained for cultivation. Wildlife do not cause any harm to local villagers and hence there is no question of conflict.
Site has been able to mitigate few human-wildlife conflicts.	Fair	✓		
Site has been able to mitigate many human-wildlife conflicts.	Good			
Site has been able effective in mitigating all human-wildlife conflicts.	Very good			

* Judgment needs to consider staff training, capabilities, equipment, logistics, local attitude and politics (negatively aided and/or abetted), assistance of relevant agencies (e.g. police. Local administration, Local people themselves) PR, follow-up actions and monitoring. Details of compensation paid for human injury/ death and property damage in the last 3 year may be collected.

2.9 Is the site integrated into a wider ecological network landscape following the principles of the ecosystem approach?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not integrated into a wider network/ landscape.	Poor		Management Plan, DFO report, Field Visit	1. The site is most important wet land in eastern India. 2. It is recognised as Dots International Migratory routes of Birds; IBA site, fulfils RAMSAR site criteria 2 and RAMSAR Wetland. 3. The district administration and other line depts. support Forest Department for the protection of the sanctuary. They must be impressed upon for providing financial support.
Some limited attempts to integrate the site into a network/ landscape.	Fair			
Site is generally quite well integrated into a network/ landscape.	Good			
Site is fully integrated into a wider network/ landscape.	Very good	✓		

* Assessment needs to consider the scope of opportunities on the landscape scale that exist. Consider whether any attempts have been made and what are these? Have all the important corridors been identified? What actions are planned/implemented for their security? Have the Forest Working Plans and Forest Development Corporation Plans within the identified landscapes taken cognizance of such new requirement? What kind of relationship exists with the District Administration and other Line Departments? Does the Site get any funds from these agencies?

3. Inputs

3.1 Are personnel adequate, well organised and deployed with access to adequate resources in the site?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Few, if any, personnel explicitly allocated for PA management.	Poor	✓	DFO report	1. The sanctuary is managed by DFO from Hazaribagh (400 KMS) and Range Officer in Giridih (350 kms). 2. One Forester and five daily wage workers manage the sanctuary locally. 3. There is no sanctioned post of Forester/FG for the sanctuary.
Some personnel explicitly allocated for PA management but not systematically linked to management objectives.	Fair			
Some personnel explicitly allocated towards achievement of specific management objectives.	Good			
Adequate personnel explicitly allocated towards achievement of specific management objectives.	Very good			

* This assessment should *inter-alia* be based on number of personnel allocated for attainment of PA objectives at the Range, Round, Beat and Patrolling camps levels or as relevant to the needs (sanctioned posts *vis- a- vis* existing personnel and needs beyond the sanctioned strengths. It is possible that posts have last been sanctioned several years back that do not now account for the current needs)

3.2 Are resources (vehicle, equipment, building etc.) adequate, well organised and managed with access to adequate resources?

Assessment criteria*																						
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks																		
Few, if any, resources explicitly allocated for PA management.	Poor		DFO report, Field Visit	<table border="1"> <tr> <th colspan="2">Resources</th> </tr> <tr> <th>Required</th> <th>available</th> </tr> <tr> <td>Motor Boats-5</td> <td>2</td> </tr> <tr> <td>Paddle Boats 10</td> <td>02</td> </tr> <tr> <td>Pat.Camps-4</td> <td>01</td> </tr> <tr> <td>Motorcycles-10</td> <td>04</td> </tr> <tr> <td>Four wheel vehicle 1</td> <td>nil</td> </tr> <tr> <td>Camera, Binoculars, GPS 10 set</td> <td>One set</td> </tr> <tr> <td>ResidentRO,Forester, FG-5</td> <td>One forester</td> </tr> </table>	Resources		Required	available	Motor Boats-5	2	Paddle Boats 10	02	Pat.Camps-4	01	Motorcycles-10	04	Four wheel vehicle 1	nil	Camera, Binoculars, GPS 10 set	One set	ResidentRO,Forester, FG-5	One forester
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Some resources explicitly allocated for PA management but not systematically linked to management objectives.	Fair	✓																				
Some resources explicitly allocated towards achievement of specific management objectives.	Good																					
Adequate resources explicitly allocated towards achievement of specific management objectives.	Very good																					

* These form a variety of resources. These may be segregated into immovable (structures) and movable categories and each further may be considered under the essential and desirable categories. It is best to start with what are the minimum needs to attain each objective, what is available and manner of use/deployment. The proportions of the 'essentials' and 'desirables' along the importance gradient of objectives would serve as pointers for score categories. Specific remarks would be vitally important.

3.3 Are resources (human and financial) linked to priority actions and are funds released timely?

Assessment criteria																
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks												
Resource allocation is adhoc, funds are inadequate and seldom released in time and not utilized.	Poor		DFO Report, APOs	1. The funds are generally released by September and utilised within the financial year. 2. The funds for Infra-structure, Patrolling, Habitat management and Eco-Development are inadequate. <table border="1"> <thead> <tr> <th>Yr</th> <th>Reciept</th> <th>Expenditure</th> </tr> </thead> <tbody> <tr> <td>2012-13</td> <td>Rs.22.22 L</td> <td>Rs10.788 L</td> </tr> <tr> <td>13-14</td> <td>Rs.17.23L</td> <td>Rs.12.21L</td> </tr> <tr> <td>14-15</td> <td>Rs.13.14L</td> <td>Rs.11.87L</td> </tr> </tbody> </table>	Yr	Reciept	Expenditure	2012-13	Rs.22.22 L	Rs10.788 L	13-14	Rs.17.23L	Rs.12.21L	14-15	Rs.13.14L	Rs.11.87L
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2012-13	Rs.22.22 L	Rs10.788 L														
13-14	Rs.17.23L	Rs.12.21L														
14-15	Rs.13.14L	Rs.11.87L														
Some specific allocation for management of priority action. Funds are inadequate and there is some delay in release, partially utilized.	Fair	✓														
Comprehensive planning and allocation that meets the most important objectives. Generally funds released with not much delay and mostly utilized.	Good															
Comprehensive planning and allocation of resources for attainment of most objectives. Funds generally released on-time and are fully utilized.	Very good															

*Obtain details of funds released by MoEF and their utilization by site in the last 3 years and indicate them under 'Remarks'. Also comment on the problems associated with funds and their mitigation.

3.4 What level of resources is provided by NGOs?

Assessment criteria*				
Condition*	Category*	(Tick ✓)	Reference document(s)	Remarks
NGOs contribute nothing for the management of the site.	Poor		DFO Report, Monitoring reports and other related documents.	1. Two NGOs namely Mandar Nature Club, Bhagalpur and Neo human Foundation, Hazaribagh are involved in census, documentation, monitoring of Birds and Eco-development awareness. 2. Sri Aravind Mishra, MNC has been monitoring the Birds for more than 15 years.
NGOs make some contribution to management of the site but opportunities for collaboration are not systematically explored.	Fair			
NGOs contributions are systematically sought and negotiated for the management of some site level activities.	Good			
NGOs contributions are systematically sought and negotiated for the management of many site level activities.	Very good	✓		

Details of contributions(cash/kind) made by the NGOs in the last 3 years may be collected.

3.5 Does PA manager considers resources (human and financial) to be sufficient?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Resources insufficient for most tasks.	Poor	✓	DFO Report, Interaction with staff	Creation of post and posting of one Range forest Officer for the exclusive management of the sanctuary is necessary. In addition the post of one Forester and four Forest Guards, along with some daily wages support staff, would be necessary for the protection of the sanctuary. Further a four wheel drive for patrolling in adjoining villages and motor boats etc as explained in para 3.2 above may be necessary for proper protection of the sanctuary.
Resources sufficient for some tasks.	Fair			
Resources sufficient for most tasks.	Good			
Resources are in excess for most tasks.	Very good			

4. Process

4.1 Does the site have trained manpower resources for effective PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Very few trained officers and frontline staff in the site.	Poor	✓	DFO report, Staff interaction	1. None of the staff working at different level of hierarchy for the sanctuary are trained.
Few trained officers and frontline staff, who are posted in the site.	Fair			
A large number of trained officers and frontline staff are posted in the site.	Good			
All trained managers and frontline staff posted in the site.	Very good			

* Indicate % of trained staff in various categories. i.e. Higher Management: ACF/ DCF/ CF/ CCF; Frontline Staff: Range Officer; Beat Officer; Forest Guard; Casual Daily Labour (CDL); Others.

4.2 Is PA staff performance management linked to achievement of management objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No linkage between staff performance management and management objectives.	Poor		DFO Report, Interaction with staff.	1. The only one Forester without the support of any Forest guards manages the sanctuary on the spot. However, there are some daily wage staff, who assist Forester.. The performance of Forester is management linked.
Some linkage between staff performance management and management objectives, but not consistently or systematically assessed.	Fair	✓		
Performance management for most staff is directly linked to achievement of relevant management objectives.	Good			
Performance management of all staff is directly linked to achievement of relevant management objectives.	Very good			

*Has the PA staff received award/ appreciation from any agency in the last 3 years?

4.3 Is there effective public participation in PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no public participation in PA management.	Poor		DFO report, Field Visits and enquiries	1. The EDC participate in census, protection of birds and anti-poaching activities during arrival of birds in winter.
Opportunistic public participation in some aspects of PA management.	Fair			
Systematic public participation in most aspects of PA management.	Good	✓		
Comprehensive and systematic public participation in all important aspects of PA management.	Very good			

* Participation would include Conservation & awareness programmes, Census operations, Intelligence gathering, Forest fire control etc.

4.4 Is there a responsive system for handling complaints and comments about PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic approach to handling complaints.	Poor		DFO report and enquiry	1. No information is obtained by anyone under RTI during last 3 years. 2. The complaints are received at the level of DFO and RFO and are also replied from there itself.
Complaints handling system operational but not responsive to individual issues and limited follow up provided.	Fair	✓		
Coordinated system logs and responds effectively to most complaints.	Good			
All complaints systematically logged in coordinated system and timely response provided with minimal repeat complaints.	Very good			

* Number of queries made and response thereof under the Right to Information (RTI), Act in the last 3 years may be compiled.

4.5 Does PA management addresses the livelihood issues of resource dependent communities especially of women?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No livelihood issues are addressed by PA management.	Poor		DFO Report, Field Visits	PA has potential of handling livelihood option of at least a section of community. EDC and Women empowerment activities can be taken up in a big way, if financial support is provided.
Few livelihood issues are addressed by PA management.	Fair	✓		
Substantial livelihood issues are addressed by PA management.	Good			
Livelihood issues of resource dependent communities especially women are addressed effectively by PA managers.	Very good			

5. Output

5.1 Is adequate information on PA management publicly available?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no information on PA management publicly available.	Poor		DFO report	1. The PA has no separate web site. The information is listed in state web site. 2. The public information is restricted to singaes, printed materials and awareness programme conducted by PA management. 3. One watch tower and NI centre are under construction.
Publicly available information is general and has limited relevance to management accountability and the condition of public assets.	Fair			
Publicly available information provides detailed insight into major management issues for most PAs or groups of PAs.	Good	✓		
Comprehensive reports are routinely provided on management and condition of public assets in all PAs or groups of PAs.	Very good			

* Does the Site has a website? If yes, is it comprehensive, well-managed and periodically updated?

5.2 Are visitor services (tourism and interpretation) and facilities appropriate for the relevant protected area category?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Visitor services and facilities are at odds with relevant PA category and/or threaten PA values.	Poor		DFO report, Field Observations	1. One FRH with 2 rooms is available for stay. 2. Motor boats and paddle boats are available for tourists. 3. Although, the place is well connected by train; it receives few tourists for night halt. However the visit of day tourists during the season is reported. The management should focus more on Eco tourism activities.
Visitor services and facilities generally accord with relevant PA category and don't threaten PA values.	Fair	✓		
All visitor services and facilities accord with relevant PA category and most enhance PA values.	Good			
All visitor services and facilities accord with relevant PA category and enhance PA values.	Very good			

* Include the existence and quality of visitor and interpretation centers, including skills and capabilities of personnel manning these, site related publications, films, videos; arrangements of stay (including places serving refreshments and food owned and managed by site), watch towers and hides including safety factors, vehicles assigned for visitors including riding elephants, if any and their deployment, drinking water, rest rooms, garbage disposal, attended and self guided services in the field, visitor feed back on the quality of wilderness experience. Details of numbers of visitors/ tourists(both domestic and overseas) coming in the last 3 years and the revenue earned may be compiled.

5.3 Are research/ monitoring related trends systematically evaluated and routinely reported and used to improve management?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no systematic evaluation or routine reporting of trends.	Poor		DFO report and documents submitted to the team	1. The winter census is conducted every year in association with NGOs and locals. 2. The monitoring report on number and types of visiting birds are available. 3. The threats and suggestions in monitoring reports are well documented.
Some evaluation and reporting undertaken but neither systematic nor routine.	Fair			
Systematic evaluation and routine reporting of management related trends undertaken.	Good	✓		
Systematic evaluation and comprehensive reporting of trends undertaken and attempts made at course corrections as relevant.	Very good			

* Not all site attract projects and researchers and with exceptions, little research takes place on the site own steam because of systemic limitations. However, monitoring of some critical issues is expected e.g. population of tiger, co-predators and prey with insights into their demography and distribution (some opportunistic sampling by sightings, signs and spatial distribution during assessment would be extremely useful in terms of expert impression and as a pulse), monitoring incidence of livestock grazing, fires, weeds, sources of water, a variety of illegal activities typically associated with the reserve, wildlife health (e.g. epidemics, immunization of livestock) regeneration and change in vegetation, visitors and their activities, offence cases, ex-gratia payments etc. Details of number of research projects in the last 3 years, institutions involved, salient outcomes may be collected and used in awarding scores.

5.4 Is there a systematic maintenance schedule and funds in place for management of infrastructure/assets?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic inventory or maintenance schedule.	Poor		DFO report, APOs	1. The funds are released on the basis of Management Plan, which is expiring next year. More funds are required to deal with the threats and to support EDCs. 2. The funds are inadequate.
Inventory maintenance is adhoc and so is the maintenance schedule.	Fair			
Systematic inventory provides the basis for maintenance schedule but funds are inadequately made available.	Good	✓		
Systematic inventory provides the basis for maintenance schedule and adequate funds are made available.	Very good			

6. Outcomes

6.1 Are populations of threatened species especially key faunal species declining, stable or increasing?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threatened/ endangered species populations declining.	Poor		DFO report, Monitoring Reports	1. The monitoring report suggests that local and some migratory birds have registered an increase in their number. 2. The wader species. are not getting much space and they are forced to leave early 3. Prevention of illegal cultivation, habitat management and control of poaching are to be attended with the help of village community.
Some threatened/ endangered species populations increasing, most others stable.	Fair			
Most threatened/ endangered species populations increasing, most others stable.	Good	✓		
All threatened/ endangered species populations either increasing or stable.	Very good			

* This needs to practically relate to the natural ecosystem potential rather than being driven merely by numbers and visibility. The assessment score may be elaborated under remarks. Comments on the population trends may be made under Remarks.

6.2 Have the threats to the site being reduced/ minimized or is there an increase?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats to the Site have not abated but have enhanced.	Poor		DFO report, Field Visit	1. Some threats to the site are reduced because of some eco-development activities. 2. The other threats like eutrophication, water hyacinth, increasing anthropogenic factors like illicit fishing, cultivating land when water recedes etc goes on unabated.
Some threats to the Site have abated, others continue their presence	Fair	✓		
Most threats to the Site have abated. The few remaining are vigorously being addressed	Good			
All threats to the Site have been effectively contained and an efficient system is in place to deal with any emerging situation	Very good			

6.3 Are the expectations of visitors generally met or exceeded?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Expectations of visitors generally not met.	Poor		DFO report,	1. The visitors come to the sanctuary during day time and avoid making night halts, as good tourist facilities are available at district headquarter, subdivision headquarter and rail heads.
Expectations of many visitors are met.	Fair	✓		
Expectations of most visitors are met.	Good			
Good expectations of most visitors are met.	Very good			

* Is there any system of receiving/ analyzing visitor feedback?

6.4 Are local communities supportive of PA management?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Local communities are hostile.	Poor		DFO report and Field observation	1. Where-ever eco- development works have some impact; local communities come forward in support of Forest Department. 2. The growth in eco-tourism initiatives would bring local families to support the protection of the sanctuary.
Some are supportive.	Fair	✓		
Most locals are supportive of PA management.	Good			
All local communities supportive of PA management.	Very good			

* There could be many reasons for disenchantment. It could be real because of managerial neglect or the managerial efforts could be appropriate but there could be local elements/organizations who would like to keep the dis-affectation simmering for their own ulterior motives. Likewise success could be entirely because of the efforts of managers or they might be fortunate in striking partnerships with credible NGOs. Assessment may take the prevailing causes into account.

MEE Score Card

Framework Element Number	Framework Element Name	Number of Questions (a)	Maximum Mark per question (b)	Total (a x b)	Marks obtained for the Element	Overall Score
1.	Context	03	10	30	17.5	60%
2.	Planning	09	10	90	62.5	
3.	Inputs	05	10	50	25	
4.	Process	05	10	50	25	
5.	Outputs	04	10	40	27.5	
6.	Outcomes	04	10	40	22.5	
Total		30		300	180	

2. PALKOT WILDLIFE SANCTUARY, JHARKHAND

MEE YEAR (2016-17)

Management Strengths

1. The sanctuary is a part of a larger ecological landscape providing connectivity with Badalkhol Sanctuary, in Jaspur District, Chhattisgarh. The connectivity extends to Timor Pingla Sanctuary and Guru Ghasidas National Park, in Chhattisgarh.
2. There are many streams and rivulets originating from the sanctuary. This water is the life line for several villages.
3. The natural caves provide protection to Sloth Bears, especially females using the place for rearing their young ones.

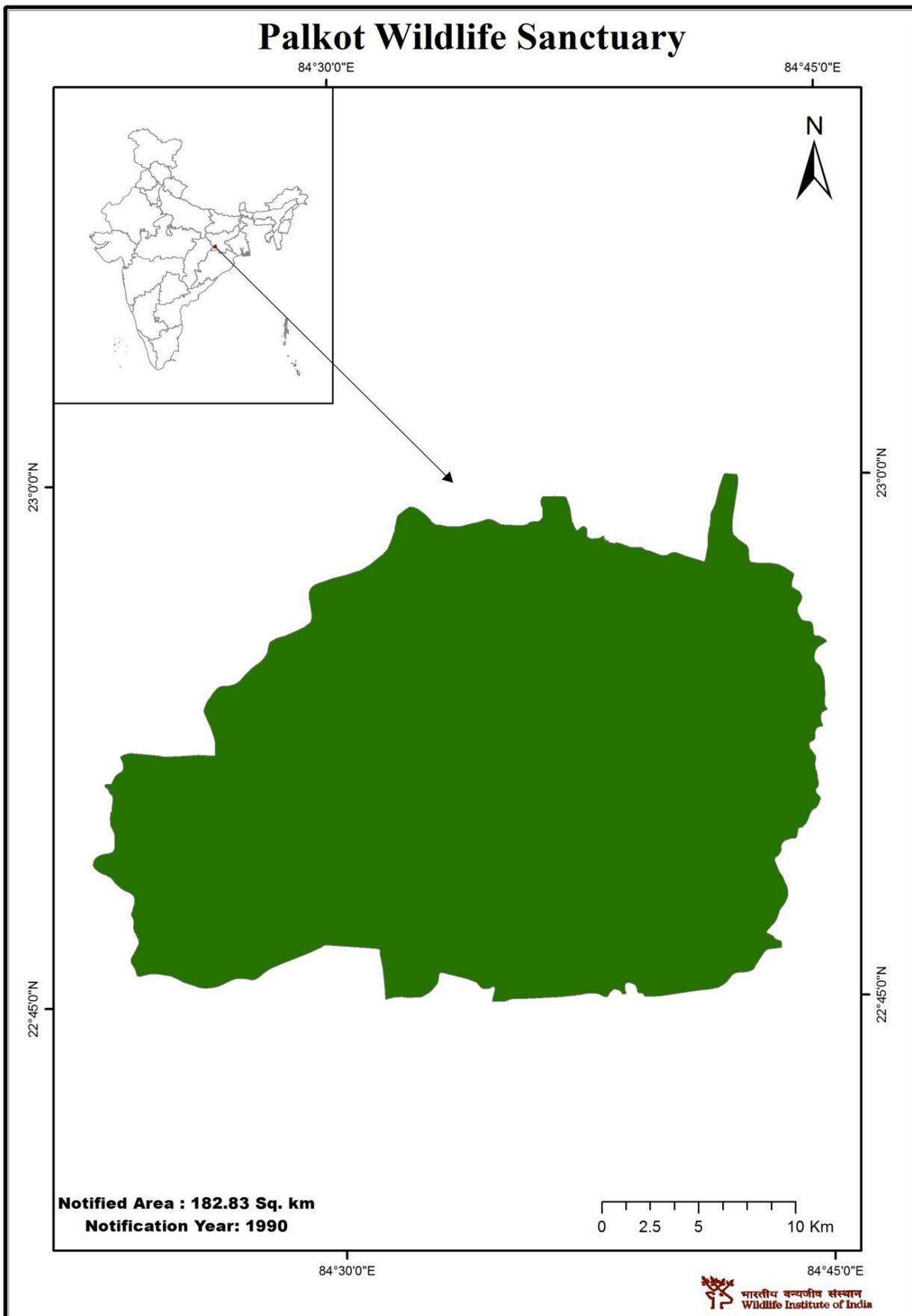
Management Weaknesses

1. The sanctuary is disturbed by left-wing extremism. The members of the staff do not perform their duties freely. As a result, the protection of forests and wildlife suffers and so also the implementation of habitat improvement programmes.
2. In the total geographical area of 910 km², the extent of the sanctuary is only 182 km². To say that the villages are enclosures in the sanctuary would be wrong. The correct statement would be that the sanctuary forests are enclosures in human-dominated landscapes. The presence of such heavy populations of humans and cattle is going to degrade the sanctuary further.
3. The department has not even made a slow beginning in providing alternate livelihood options to the resource-dependent tribals and other communities living in these villages.
4. The ever-increasing number of claims under the Forests Rights Act, 2006 will result in degradation of the habitat of the wild animals. This will increase the conflict and threaten conservation.
5. Forest fires in the sanctuary are reported to be severe every year. This is a very big threat to conservation.

Actionable Points

1. The department must enlarge the scope of providing alternative livelihood options to resource-dependent communities. It is absolutely necessary to halt the process of degradation of the habitat.
2. Claims made under the Forests Rights Act, 2006 should be settled judiciously. No claim should be processed without proper verification of consecutive satellite images from the relevant period.
3. Special efforts should be made to contain forest fires.
4. It is necessary to identify corridors and the problems associated with Elephant movements, crop damage, etc.

Palkot Wildlife Sanctuary



1. Context

1.1 Are the values of the site well documented, assessed and monitored?

Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Values not systematically documented, assessed or monitored.	Poor		Management Plan (MP) for Palkot Sanctuary 2006-07 to 2015-16 by Shri Arun Kumar Mishra the then ACF, Wildlife Division, Ranchi Pages 2 & 3	The statement of significance is given in para 1.3 of MP and the critical values are diverse type of forests, significant population of wildlife such as sloth bear, python, leopard etc. and also livelihood support to the local tribal community. Besides, the potential for wildlife tourism, aesthetic value, nature interpretation and education for tourists are also recognized as additional values. Further, the sanctuary provides immense scope for wildlife research and nature education. The most important value of sanctuary is that it is an excellent habitat for sloth bear. These values are systematically identified, assessed and monitored.
Values generally identified but not systematically assessed and monitored.	Fair			
Most values systematically identified and assessed and monitored.	Good	✓		
All values systematically identified and assessed and monitored.	Very good			

*Values would also include geo-morphological, historico-cultural and faunal and floral species.

1.2 Are the threats to site values well documented and assessed?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats not systematically documented or assessed.	Poor		MP - P 63 & 64 Para 5.2 A to F	In para B the main threats are listed. The sanctuary is threatened by the forest fire, grazing, manmade disturbance such as collection of fuel wood, coal, timber, Bamboo, collection of minor forest produce etc. Erosion of soil due to water and wind is also enumerated as the threat. The area is also affected by left wing extremism. Extremists question every action of the staff. The forest personnel find themselves cornered and feel threatened for their lives and the lives of their loved ones, while discharging their duties of forest protection and implementing programs relating to conservation and development of forests and wildlife. The sanctuary is generally reported to be devastated by big fire which causes degradation and fragmentation of habitat..Forest Rights Act, 2006 has opened a Pandora box and many claims are being filed. Although forest officers verify the claims before recommending, but many a times they come under pressure from political masters and are forced to give in.
Threats generally identified but not systematically assessed.	Fair			
Most threats systematically identified and assessed.	Good	✓		
All threats systematically identified and assessed.	Very good			

* This assessment should be based on number, nature and extent of threats. Threats within and outside PA should both be considered. Impacts, if any on the population abundance of key species may be indicated in the remarks.

1.3 Is the site free from human and biotic interference?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
The site has extensive human and biotic interference.	Poor	✓	MP - P 219 to 221 (Annexure: 24)	There are 82 villages within the sanctuary and all these are densely populated and the communities are dependent on the forest resources for their livelihood. Also there are 118000 cattle and 104000 goats dependent on forest resources. The site has huge human and other biotic pressures.
The site has some human and biotic interference.	Fair			
The site has little human and biotic interference.	Good			
The site has no human and biotic interference.	Very good			

*This assessment should be based on existence of human settlements/ villages; livestock grazing, cultivation, encroachments etc, resource extraction/ livelihood dependence of local communities and should reflect the overall interference due to all the above factors. Number and size of human settlements/ enclaved villages and their impacts on the site may be indicated in the Remarks.

2. Planning

2.1 Is the site properly identified (NP/WLS) and categorized (in terms of zonation) to achieve the objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not identified correctly or categorized.	Poor		MP - P 66 Para 6.2 Zonation map of Sanctuary Annexed with the MP	Earlier the sanctuary was in Gumla Territorial Division and was managed as per the working plan. The latest Management Plan has prescribed 3 zones viz., A-Core Zone, B-tourism Zone, and C-Buffer Zone. The Core Zone extends over 24 km ² of area while the buffer zone extends over 157.5 km ² and the Tourism Zone over an area of 25.5 km ² overlapping with the Buffer Zone. The management prescriptions of the different zones are also assessed and are available on MP P- 66 to 69.
Site identified correctly but not categorized.	Fair			
Site identified correctly but not systematically categorized.	Good			
Site identified correctly and systematically categorized with proper zonation plans.	Very good	✓		

Management prescriptions for various zones (Core, Buffer, Tourism etc) may be carefully assessed.

2.2 Does the site have a comprehensive Management Plan?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No relevant Management Plan in place.	Poor		MP	The Management Plan is in place, which was prepared in accordance with the prevailing guidelines. Further the said Plan has expired in 2015-16 and CWLW has permitted to continue the implementation on similar lines for one more year.
Management Plan exist but not comprehensive.	Fair			
Site has a comprehensive Management Plan.	Good	✓		
Site has a comprehensive, science based Management Plan prepared through a participatory process.	Very good			

Is the Management Plan consistent with WII Guidelines or not? The extent to which the concerns of the stakeholders, if any have been incorporated in the Management Plan may be commented upon.

2.3 Is the Management Plan routinely and systematically updated?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No process in place for systematic review and update of Management Plan.	Poor			Management Plan is for 10 year period and has expired in March, 2016. However, one year extension has been granted for the implementation by the competent authority. There is no practice of mid-term review of the Management Plan. The new Plan is under preparation.
Management Plan sometimes updated in adhoc manner.	Fair	✓		
Management Plan routinely and systematically updated.	Good			
Management Plan routinely, systematically and scientifically updated through a participatory process.	Very good			

2.4 Does the site safeguards the threatened biodiversity values?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Sites does not safeguard the threatened biodiversity values.	Poor		MP- P 2&3	The Management Plan prescribes the safeguard of threatened species such as sloth bear, leopard and python.
Sites safeguards a few threatened biodiversity values.	Fair			
Sites safeguards a large number of threatened biodiversity values.	Good	✓		
Sites safeguards all threatened biodiversity values.	Very good			

* Remarks need to elaborate on the kind of safeguards and how they work or are intended to work

*Score: Poor: 2.5; Fair: 5; Good: 7.5; Very Good: 10

2.6 Are stakeholders given an opportunity to participate in planning?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little, if any opportunity for stakeholder participation in planning.	Poor			EDCs have been constituted in all the villages.. There are 81 EDCs constituted for joint forest management of the sanctuary and also to take their support in preventing illegal activities like poaching, illicit cutting of trees, fire etc. There is a well established procedure for decision making in EDCs. Meetings are held to discuss the issues and the resolutions are recorded in the EDC meeting registers. During the field visit we found that committees are functional and providing assistance to the management.
Stakeholders participate in some planning.	Fair	✓		
Stakeholders participate in most planning processes.	Good			
Stakeholders routinely and systematically participate in all planning processes.	Very good			

* The result of participation must show in the field and not merely reported as a routine exercise. Further, is there a system/scope of putting the draft Management Plan in Public Domain in place?

2.6 Are habitat restoration programmes systematically planned and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Habitat restoration programmes are entirely adhoc.	Poor		MP- P 75 & 76 and P 81 to 83	In habitat improvement works such as creation of water holes, raising of plantations of miscellaneous species at appropriate places in the sanctuary, local EDC members are also consulted. The Sanctuary Management is fortunate enough that no major invasive species such as lantana, eupatorium etc. is present in the area. The area is full of natural rocky caves which are ideal sites for sloth bear breeding which is the reason that this area harbors a healthy population of sloth bear. According to 2016 census the reported sloth bear population is 125.
Limited planning and monitoring programmes are in place for habitat restoration.	Fair	✓		
Habitat restoration programmes are generally well planned and monitored.	Good			
Habitat restoration programmes are thoroughly planned and monitored.	Very good			

* This assessment should be primarily based on habitat management programmes in relation to habitats for species that are threatened (IUCN categories), are habitat specialists, subjected to seasonal movements, wide ranging with emphasis on the breeding and rearing habitat and may include factors such as food, water, shelter (all connotations). Habitat structure, composition, unique patches of vegetation and sensitive sites, sources of water and their distribution are integral. Corridors within buffer zone are critically important. For example, all riparian habitats. Have these been addressed? Is there a planning process in place? What is the extent of 'invasive species in the Site? Are there any measures to reduce/ remove them? Have these been successful?

2.7 Does the site has an effective protection strategy?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Site has no protection strategy.	Poor		Discussion with DFO	Sanctuary has sanctioned strength of 1 Ranger, 3 Foresters, and 13 Forest Guards. Against this sanctioned strength, only 1 Ranger and 1 Forest Guard are in position. Thus, there is a shortage of protection staff. However, the management has employed 20 daily wage trekkers located in different villages for the protection of forest and wildlife. The services of the trekkers are also utilized for fire protection and anti-depredation squad for handling human-wildlife conflict situations. The list of these trekkers along with their locations is shown in the table. (Also refer to para 1.2)
Site has an adhoc protection strategy.	Fair	✓		
Site has a comprehensive protection strategy but is not very effective.	Good			
Site has a comprehensive and very effective protection strategy.	Very good			

* This assessment takes *inter-alia* into account the nature of threats, the number and location of patrolling camps and foot and mobile patrolling, needs that relate to available manpower, terrain difficulties, practicability of area coverage, readiness to contain specific threats with necessary support and facilities. Is there any coordination with other wings of the Forest Department/ Police/ Customs etc? Are these effective?

2.8 Has the site been effective in the mitigation of human-wildlife conflicts?

Assessment criteria*																								
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks																				
Human-wildlife conflicts are rampant.	Poor			At present the sanctuary staff lacks training as well as equipment required to deal with human-wildlife conflict. The major conflict animals are sloth bear, wild pigs and elephants. The main strategy adopted to deal with human wildlife conflict cases involve creating awareness among local villagers through distribution of pamphlets, informing villagers about the movement of elephants by communicating them, timely compensation of crop damage, cattle kill, human injury and death cases. The details are provided below:																				
Site has been able to mitigate few human-wildlife conflicts.	Fair																							
Site has been able to mitigate many human-wildlife conflicts.	Good	✓																						
Site has been able effective in mitigating all human-wildlife conflicts.	Very good																							
<table border="1"> <thead> <tr> <th>Year</th> <th>Death</th> <th>Injury</th> <th>Grop/House/Cattle/ Food Damage</th> <th>Compensation Paid (Rs. lakh)</th> </tr> </thead> <tbody> <tr> <td>2013-14</td> <td>0</td> <td>0</td> <td>1</td> <td>0.01215</td> </tr> <tr> <td>2014-15</td> <td>0</td> <td>11</td> <td>32</td> <td>5.85585</td> </tr> <tr> <td>2015-16</td> <td>0</td> <td>4</td> <td>143</td> <td>14.766095</td> </tr> </tbody> </table>					Year	Death	Injury	Grop/House/Cattle/ Food Damage	Compensation Paid (Rs. lakh)	2013-14	0	0	1	0.01215	2014-15	0	11	32	5.85585	2015-16	0	4	143	14.766095
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2014-15	0	11	32	5.85585																				
2015-16	0	4	143	14.766095																				

* Judgment needs to consider staff training, capabilities, equipment, logistics, local attitude and politics (negatively aided and/or abetted), assistance of relevant agencies (e.g. police. Local administration, Local people themselves) PR, follow-up actions and monitoring. Details of compensation paid for human injury/ death and property damage in the last 3 year may be collected.

2.9 Is the site integrated into a wider ecological network landscape following the principles of the ecosystem approach?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not integrated into a wider network/ landscape.	Poor		WII***	To the west of the palkot wildlife sanctuary Jaspur range and badalkhol sanctuary of Chattishgarh are situated, thus the sanctuary is integral part of the wider ecological network
Some limited attempts to integrate the site into a network/ landscape.	Fair			
Site is generally quite well integrated into a network/ landscape.	Good	✓		
Site is fully integrated into a wider network/ landscape.	Very good			

* Assessment needs to consider the scope of opportunities on the landscape scale that exist. Consider whether any attempts have been made and what are these? Have all the important corridors been identified? What actions are planned/implemented for their security? Have the Forest Working Plans and Forest Development Corporation Plans within the identified landscapes taken cognizance of such new requirement? What kind of relationship exists with the District Administration and other Line Departments? Does the Site get any funds from these agencies?

3. Inputs

3.1 Are personnel adequate, well organised and deployed with access to adequate resources in the site?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Few, if any, personnel explicitly allocated for PA management.	Poor	✓	MP- P 115 to 118	The status of the staff strength has been discussed in para 2.7. The actual requirement of the staff has been worked out and the proposal has been submitted to CCF Wildlife vide letter No. 111 dated 29.01.2016. According to this proposal, 6 Foresters and 25 Forest Guards are required for proper management of the Sanctuary. Currently the recruitment of Forest Guards is under way and the vacant posts are likely to be filled shortly.
Some personnel explicitly allocated for PA management but not systematically linked to management objectives.	Fair			
Some personnel explicitly allocated towards achievement of specific management objectives.	Good			
Adequate personnel explicitly allocated towards achievement of specific management objectives.	Very good			

* This assessment should *inter-alia* be based on number of personnel allocated for attainment of PA objectives at the Range , Round, Beat and Patrolling camps levels or as relevant to the needs (sanctioned posts *vis- a- vis* existing personnel and needs beyond the sanctioned strengths. It is possible that posts have last been sanctioned several years back that do not now account for the current needs)

3.2 Are resources (vehicle, equipment, building etc.) adequate, well organised and managed with access to adequate resources?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Few, if any, resources explicitly allocated for PA management.	Poor	✓	MP- P 118 to 120 Discussion with DFO, Wildlife Division Ranchi	At present only one patrolling vehicle is available. As per the assessment, 2 more patrolling vehicles are required. At present 3 motor cycles are available and 13 more motor cycles are required. 2 GPS are available and 15 more GPS sets are required; 6 sets of camera trap are required; 20 range finders, 20 compass and 20 binoculars are also required. To record observation in the field and communicate online, 20 smart phones are also needed. At present only 8 Forest Guard quarters are available and there is need of additional 5 quarters. There is no Forester quarter. 3 Forester quarters are required. One Forest Rest House is also required within the sanctuary as there no FRH available for the touring officers.
Some resources explicitly allocated for PA management but not systematically linked to management objectives.	Fair			
Some resources explicitly allocated towards achievement of specific management objectives.	Good			
Adequate resources explicitly allocated towards achievement of specific management objectives.	Very good			

* These form a variety of resources. These may be segregated into immovable (structures) and movable categories and each further may be considered under the essential and desirable categories. It is best to start with what are the minimum needs to attain each objective, what is available and manner of use/deployment. The proportions of the 'essentials' and 'desirables' along the importance gradient of objectives would serve as pointers for score categories. Specific remarks would be vitally important.

3.3 Are resources (human and financial) linked to priority actions and are funds released timely?

Assessment criteria				
Condition	Catego	(Tic	Referenc	Remarks

	ry*	k ✓)	e document (s)																																																																													
Resource allocation is adhoc, funds are inadequate and seldom released in time and not utilized.	Poor		MP- P Discussion with DFO, Wildlife Division Ranchi	As per the information provided by the DFO, the funds received under various schemes of State and Central Governments are sufficient with reference to the strength of staff for fund utilization. The details of staff availability has been discussed in paras 2.7 & 3.1. The funds are also received in time. The details of funds sanctioned, released and utilized during last three years are given below:																																																																												
Some specific allocation for management of priority action. Funds are inadequate and there is some delay in release, partially utilized.	Fair			<table border="1"> <thead> <tr> <th>Year</th> <th>Name of Scheme</th> <th>Amount Sanctioned</th> <th>Amount Released</th> <th>Amount Utilized</th> </tr> </thead> <tbody> <tr> <td colspan="5">(A) State Government Schemes</td> </tr> <tr> <td>2013-14</td> <td>24-Wildlife Protection Plan</td> <td>22,93,000.00</td> <td>22,93,000.00</td> <td>22,93,000.00</td> </tr> <tr> <td rowspan="2">2014-15</td> <td>24-Wildlife Protection Plan</td> <td>57,18,400.00</td> <td>57,18,400.00</td> <td>45,64,300.00</td> </tr> <tr> <td>IFM Plan</td> <td>2,56,500.00</td> <td>2,56,500.00</td> <td>1,99,400.00</td> </tr> <tr> <td></td> <td>Total (2014-15)</td> <td>59,74,900.00</td> <td>59,74,900.00</td> <td>47,63,700.00</td> </tr> <tr> <td rowspan="4">2015-16</td> <td>24- Wildlife Protection Plan</td> <td>34,17,700.00</td> <td>34,17,700.00</td> <td>18,52,300.00</td> </tr> <tr> <td>47- Modernisation of Forest offices Plan</td> <td>3,00,000.00</td> <td>3,00,000.00</td> <td>3,00,000.00</td> </tr> <tr> <td>45-wildlife Crime Control Plan</td> <td>1,37,000.00</td> <td>1,37,000.00</td> <td>1,37,000.00</td> </tr> <tr> <td>44- Eco-Development, Education & Awareness Plan</td> <td>15,12,200.00</td> <td>15,12,200.00</td> <td>15,12,200.00</td> </tr> <tr> <td></td> <td>09- MFP Plan</td> <td>6,00,000.00</td> <td>6,00,000.00</td> <td>6,00,000.00</td> </tr> <tr> <td></td> <td>Total (2015-16)</td> <td>59,66,900.00</td> <td>59,66,900.00</td> <td>44,01,700.00</td> </tr> <tr> <td colspan="5">(B) Central Government Scheme</td> </tr> <tr> <td>2013-14</td> <td>Integrated Development of Wildlife Habitat Plan</td> <td>19,80,000.00</td> <td>13,70,000.00</td> <td>13,22,000.00</td> </tr> <tr> <td>2014-15</td> <td>Integrated Development of Wildlife Habitat Plan</td> <td>20,00,000.00</td> <td>15,00,000.00</td> <td>15,00,000.00</td> </tr> <tr> <td>2015-16</td> <td>Integrated Development of Wildlife Habitat Plan</td> <td>20,75,000.00</td> <td>-----</td> <td>-----</td> </tr> </tbody> </table>	Year	Name of Scheme	Amount Sanctioned	Amount Released	Amount Utilized	(A) State Government Schemes					2013-14	24-Wildlife Protection Plan	22,93,000.00	22,93,000.00	22,93,000.00	2014-15	24-Wildlife Protection Plan	57,18,400.00	57,18,400.00	45,64,300.00	IFM Plan	2,56,500.00	2,56,500.00	1,99,400.00		Total (2014-15)	59,74,900.00	59,74,900.00	47,63,700.00	2015-16	24- Wildlife Protection Plan	34,17,700.00	34,17,700.00	18,52,300.00	47- Modernisation of Forest offices Plan	3,00,000.00	3,00,000.00	3,00,000.00	45-wildlife Crime Control Plan	1,37,000.00	1,37,000.00	1,37,000.00	44- Eco-Development, Education & Awareness Plan	15,12,200.00	15,12,200.00	15,12,200.00		09- MFP Plan	6,00,000.00	6,00,000.00	6,00,000.00		Total (2015-16)	59,66,900.00	59,66,900.00	44,01,700.00	(B) Central Government Scheme					2013-14	Integrated Development of Wildlife Habitat Plan	19,80,000.00	13,70,000.00	13,22,000.00	2014-15	Integrated Development of Wildlife Habitat Plan	20,00,000.00	15,00,000.00	15,00,000.00	2015-16	Integrated Development of Wildlife Habitat Plan	20,75,000.00	-----	-----
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2015-16	24- Wildlife Protection Plan	34,17,700.00	34,17,700.00	18,52,300.00																																																																												
	47- Modernisation of Forest offices Plan	3,00,000.00	3,00,000.00	3,00,000.00																																																																												
	45-wildlife Crime Control Plan	1,37,000.00	1,37,000.00	1,37,000.00																																																																												
	44- Eco-Development, Education & Awareness Plan	15,12,200.00	15,12,200.00	15,12,200.00																																																																												
	09- MFP Plan	6,00,000.00	6,00,000.00	6,00,000.00																																																																												
	Total (2015-16)	59,66,900.00	59,66,900.00	44,01,700.00																																																																												
(B) Central Government Scheme																																																																																
2013-14	Integrated Development of Wildlife Habitat Plan	19,80,000.00	13,70,000.00	13,22,000.00																																																																												
2014-15	Integrated Development of Wildlife Habitat Plan	20,00,000.00	15,00,000.00	15,00,000.00																																																																												
2015-16	Integrated Development of Wildlife Habitat Plan	20,75,000.00	-----	-----																																																																												
Comprehensive planning and allocation that meets the most important objectives. Generally funds released with not much delay and mostly utilized.	Good	✓																																																																														
Comprehensive planning and allocation of resources for attainment of most objectives. Funds generally released on-time and are fully utilized.	Very good																																																																															

*Obtain details of funds released by MoEF and their utilization by site in the last 3 years and indicate them under 'Remarks'. Also comment on the problems associated with funds and their mitigation.

3.4 What level of resources is provided by NGOs?

Assessment criteria*				
Condition*	Category*	(Tick ✓)	Reference document(s)	Remarks
NGOs contribute nothing for the management of the site.	Poor		Discussion with DFO Wildlife Division, Ranchi	No financial or in-kind support has been extended by any NGO. However, training support has been provided by Wildlife Protection Society of Jharkhand, Ranchi such that the resource dependent communities have alternative livelihood option in the field of Mushroom cultivation and beekeeping. This organization is associated with the Forest Department since 2012-13 onwards. Nature Conservation Society, Daltonganj has provided scientific support in the status survey of sloth bear during 2011-12.
NGOs make some contribution to management of the site but opportunities for collaboration are not systematically explored.	Fair			
NGOs contributions are systematically sought and negotiated for the management of some site level activities.	Good	✓		
NGOs contributions are systematically sought and negotiated for the management of many site level activities.	Very good			

Details of contributions(cash/kind) made by the NGOs in the last 3 years may be collected.

3.5 Does PA manager consider resources (human and financial) to be sufficient?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Resources insufficient for most tasks.	Poor			Human resources are grossly insufficient as explained in paras 2.7, 3.1 & 3.3. The financial resources are sufficient for meager staff to spend usefully. There is a likelihood of posting of newly recruited Forest Guards in the immediate future; additional financial resources will be required for protection and speedy implementation of habitat improvement works. It will also help the monitoring of the outcome as a result of various improvement programs. Please refer to para 3.3 also.
Resources sufficient for some tasks.	Fair	✓		
Resources sufficient for most tasks.	Good			
Resources are in excess for most tasks.	Very good			

4. Process

4.1 Does the site have trained manpower resources for effective PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Very few trained officers and frontline staff in the site.	Poor	✓		No staff is formally trained in wildlife management. However, some short duration topical training on certain aspects of wildlife management such as wildlife crime control, wild animal immobilization, etc. has been provided to the staff.
Few trained officers and frontline staff, who are posted in the site.	Fair			
A large number of trained officers and frontline staff are posted in the site.	Good			
All trained managers and frontline staff posted in the site.	Very good			

* Indicate % of trained staff in various categories. i.e. Higher Management: ACF/ DCF/ CF/ CCF; Frontline Staff: Range Officer; Beat Officer; Forest Guard; Casual Daily Labour (CDL); Others.

4.2 Is PA staff performance management linked to achievement of management objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No linkage between staff performance management and management objectives.	Poor			The performance of regular staff is evaluated in their Annual Confidential Reports based on their field performance. The achievement of objectives in the management is dependent on the performance of the staff.
Some linkage between staff performance management and management objectives, but not consistently or systematically assessed.	Fair	✓		
Performance management for most staff is directly linked to achievement of relevant management objectives.	Good			
Performance management of all staff is directly linked to achievement of relevant management objectives.	Very good			

*Has the PA staff received award/ appreciation from any agency in the last 3 years?

4.3 Is there effective public participation in PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no public participation in PA management.	Poor		Discussion with DFO	Every year in the month of March, awareness campaigns are organized for school children regarding wildlife conservation. During the wildlife week every year, different competitions such as drawing, essay and quiz are organized and rallies of students are also organized to create awareness. Also to spread awareness for protecting trees, a noble activity "Raksha Bandhan" is taken up in all the villages, in which villagers tie rakhis to protect trees. The villagers provide valuable intelligence related to forest offences and recently the department has taken action based on this intelligence. The villagers provide their active support in controlling forest fires.
Opportunistic public participation in some aspects of PA management.	Fair	✓		
Systematic public participation in most aspects of PA management.	Good			
Comprehensive and systematic public participation in all important aspects of PA management.	Very good			

* Participation would include Conservation & awareness programmes, Census operations, Intelligence gathering, Forest fire control etc.

4.4 Is there a responsive system for handling complaints and comments about PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic approach to handling complaints.	Poor		Various files	For general complaints, there is no mechanism to track their disposal. However, for every complaint, a file is opened and the complaint is dealt in the file. As such the number of complaints received in a year is very low. For RTIs separate file is maintained and annual returns are submitted to higher offices. The details of last three year RTIs received and disposed are as under:
Complaints handling system operational but not responsive to individual issues and limited follow up provided.	Fair			
Coordinated system logs and responds effectively to most complaints.	Good	✓		
All complaints systematically logged in coordinated system and timely response provided with minimal repeat complaints.	Very good			

Year	No. Of RTIs received	No. Of RTIs disposed
2014	2	2
2015	3	3
2016	3	3

* Number of queries made and response thereof under the Right to Information (RTI), Act in the last 3 years may be compiled.

4.5 Does PA management addresses the livelihood issues of resource dependent communities especially of women?

Assessment criteria																																
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks																												
No livelihood issues are addressed by PA management.	Poor		Discussion with DFO, Wildlife Ranchi, verification of records	There is a component of eco-development under the scheme "Wildlife Protection Plan" of the State Government. Also from the year 2015-16, the State Government has initiated another scheme "Eco-development, Education & Awareness Plan" for eco-development activities through which funds are provided directly to EDCs in their account and the activities are planned and undertaken by EDC members. The details of funds received under these schemes are shown in the following table:																												
Few livelihood issues are addressed by PA management.	Fair																															
Substantial livelihood issues are addressed by PA management.	Good	✓																														
Livelihood issues of resource dependent communities especially women are addressed effectively by PA managers.	Very good																															
<table border="1"> <thead> <tr> <th>Year</th> <th>Name of Scheme</th> <th>Amount Sanctioned</th> <th>Amount Utilized</th> </tr> </thead> <tbody> <tr> <td>2013-14</td> <td>24-Wildlife Protection Plan</td> <td>-</td> <td>-</td> </tr> <tr> <td>2014-15</td> <td>24-Wildlife Protection Plan</td> <td>4,15,000</td> <td>2,10,000</td> </tr> <tr> <td>2015-16</td> <td>24-Wildlife Protection Plan</td> <td>2,36,500</td> <td>2,31,000</td> </tr> <tr> <td>2013-14</td> <td>44-Ecodevelopment, Education & Awareness Plan</td> <td>-</td> <td>-</td> </tr> <tr> <td>2014-15</td> <td>44-Ecodevelopment, Education & Awareness Plan</td> <td>-</td> <td>-</td> </tr> <tr> <td>2015-16</td> <td>44-Ecodevelopment, Education & Awareness Plan</td> <td>15,12,200</td> <td>15,12,200</td> </tr> </tbody> </table>					Year	Name of Scheme	Amount Sanctioned	Amount Utilized	2013-14	24-Wildlife Protection Plan	-	-	2014-15	24-Wildlife Protection Plan	4,15,000	2,10,000	2015-16	24-Wildlife Protection Plan	2,36,500	2,31,000	2013-14	44-Ecodevelopment, Education & Awareness Plan	-	-	2014-15	44-Ecodevelopment, Education & Awareness Plan	-	-	2015-16	44-Ecodevelopment, Education & Awareness Plan	15,12,200	15,12,200
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5. Output

5.1 Is adequate information on PA management publicly available?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no information on PA management publicly available.	Poor			The State has a website for the Forest Department, and the details of Palkot Wildlife Sanctuary are available at http://www.jharwildlife.in/2014-10-09-13-56-25/2014-10-10-15-05-38/palkot.html The Department publishes pamphlets, leaflets, poster, and erect road side signage etc. for information of the general public.
Publicly available information is general and has limited relevance to management accountability and the condition of public assets.	Fair			
Publicly available information provides detailed insight into major management issues for most PAs or groups of PAs.	Good	✓		
Comprehensive reports are routinely provided on management and condition of public assets in all PAs or groups of PAs.	Very good			

* Does the Site has a website? If yes, is it comprehensive, well-managed and periodically updated?

5.2 Are visitor services (tourism and interpretation) and facilities appropriate for the relevant protected area category?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Visitor services and facilities are at odds with relevant PA category and/or threaten PA values.	Poor		Discussion with DFO	There are no visitor facilities such as FRH, interpretation centre, guides etc. available for tourists. The tourism is also very low at present because of lack of facilities and left wing extremism.
Visitor services and facilities generally accord with relevant PA category and don't threaten PA values.	Fair			
All visitor services and facilities accord with relevant PA category and most enhance PA values.	Good	✓		
All visitor services and facilities accord with relevant PA category and enhance PA values.	Very good			

* Include the existence and quality of visitor and interpretation centers, including skills and capabilities of personnel manning these, site related publications, films, videos; arrangements of stay (including places serving refreshments and food owned and managed by site), watch towers and hides including safety factors, vehicles assigned for visitors including riding elephants, if any and their deployment, drinking water, rest rooms, garbage disposal, attended and self-guided services in the field, visitor feedback on the quality of wilderness experience. Details of numbers of visitors/ tourists (both domestic and overseas) coming in the last 3 years and the revenue earned may be compiled.

5.3 Are research/ monitoring related trends systematically evaluated and routinely reported and used to improve management?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no systematic evaluation or routine reporting of trends.	Poor		"Report of Plants & Medicinal Plants in Palkot Wildlife Sanctuary, Gumla Table of census of mammals"	Botanical Survey of India has prepared a report on plants of Palkot Wildlife Sanctuary in 2011. Nature Conservation Society, Daltonganj has provided scientific support in the status survey of sloth bear during 2011-12. Estimation of populations of major mammalian species is done regularly.
Some evaluation and reporting undertaken but neither systematic nor routine.	Fair			
Systematic evaluation and routine reporting of management related trends undertaken.	Good	✓		
Systematic evaluation and comprehensive reporting of trends undertaken and attempts made at course corrections as relevant.	Very good			

* Not all sites attract projects and researchers and with exceptions, little research takes place on the site on its own steam because of systemic limitations. However, monitoring of some critical issues is expected e.g. population of tiger, co-predators and prey with insights into their demography and distribution (some opportunistic sampling by sightings, signs and spatial distribution during assessment would be extremely useful in terms of expert impression and as a pulse), monitoring incidence of livestock grazing, fires, weeds, sources of water, a variety of illegal activities typically associated with the reserve, wildlife health (e.g. epidemics, immunization of livestock) regeneration and change in vegetation, visitors and their activities, offence cases, ex-gratia payments etc. Details of number of research projects in the last 3 years, institutions involved, salient outcomes may be collected and used in awarding scores.

5.4 Is there a systematic maintenance schedule and funds in place for management of infrastructure/assets?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic inventory or maintenance schedule.	Poor		Discussion with DFO and Verification of records	Funds are provided for white-washing and maintenance of departmental buildings under the State Plan. The maintenance of building is generally carried out every alternate year. However the special repairs of any building is referred to higher authority for the approval and release of funds.
Inventory maintenance is adhoc and so is the maintenance schedule.	Fair			
Systematic inventory provides the basis for maintenance schedule but funds are inadequately made available.	Good	✓		
Systematic inventory provides the basis for maintenance schedule and adequate funds are made available.	Very good			

6. Outcomes

6.1 Are populations of threatened species especially key faunal species declining, stable or increasing?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threatened/ endangered species populations declining.	Poor		Census report	Though the populations of sloth bear, hyaena, and elephant are found to be on the increase with reference to 2014 population estimation survey, the populations of wild dog and leopard are on decline. The census report of different species 2014 and 2016 are shown below:
Some threatened/ endangered species populations increasing, most others stable.	Fair			
Most threatened/ endangered species populations increasing, most others stable.	Good	✓		
All threatened/ endangered species populations either increasing or stable.	Very good			

* This needs to practically relate to the natural ecosystem potential rather than being driven merely by numbers and visibility. The assessment score may be elaborated under remarks. Comments on the population trends may be made under Remarks.

6.2 Have the threats to the site being reduced/ minimized or is there an increase?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats to the Site have not abated but have enhanced.	Poor		Discussion with DFO and Stakeholders	Threats remain constant as human and cattle populations have continued to exert pressure on wildlife habitats. Further the forests are also threatened by increasing number of FRA cases.
Some threats to the Site have abated, others continue their presence	Fair	✓		
Most threats to the Site have abated. The few remaining are vigorously being addressed	Good			
All threats to the Site have been effectively contained and an efficient system is in place to deal with any emerging situation	Very good			

6.3 Are the expectations of visitors generally met or exceeded?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Expectations of visitors generally not met.	Poor		Field visit and discussion with Sanctuary Officials	As there is no tourist infrastructure, expectation of visitors cannot be judged.
Expectations of many visitors are met.	Fair			
Expectations of most visitors are met.	Good	✓		
Good expectations of most visitors are met.	Very good			

* Is there any system of receiving/ analyzing visitor feedback?

6.4 Are local communities supportive of PA management?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Local communities are hostile.	Poor		Discussion with Stakeholders	EDC member oppose the rights claimed by individuals under FRA 2005. It indicates that communities are supportive of PA Management.
Some are supportive.	Fair			
Most locals are supportive of PA management.	Good	✓		
All local communities supportive of PA management.	Very good			

* There could be many reasons for disenchantment. It could be real because of managerial neglect or the managerial efforts could be appropriate but there could be local elements/organizations who would like to keep the dis-affectation simmering for their own ulterior motives. Likewise success could be entirely because of the efforts of managers or they might be fortunate in striking partnerships with credible NGOs. Assessment may take the prevailing causes into account.

MEE Score Card

Framework Element Number	Framework Element Name	Number of Questions (a)	Maximum Mark per question (b)	Total (a x b)	Marks obtained for the Element	Overall Score
1.	Context	03	10	30	17.5	62.5%
2.	Planning	09	10	90	60	
3.	Inputs	05	10	50	25	
4.	Process	05	10	50	27.5	
5.	Outputs	04	10	40	30	
6.	Outcomes	04	10	40	27.5	
Total		30		300	187.5	

ODISHA

3. GAHIRMATHA (MARINE) WILDLIFE SANCTUARY, ODISHA

MEE Year (2006–09)

A. Management Strengths

1. Most of the threats to the site are well documented and periodically assessed.
2. The site has well-defined core and buffer zones.
3. The site has a comprehensive management plan based on scientific facts, but the plan was prepared mostly through departmental consultations.
4. Due to the protection offered to the country's territorial waters, the site safeguards a large number of biodiversity values.
5. The habitat improvement programmes with regard to the land area of the sanctuary are well planned and monitored.
6. The site is integrated fairly well into the network/landscape. The entire extent of the coastal waters, extending from the mouth of the Dharma River to the Mahanadi delta, with a width of 20 km, falls within the sanctuary.
7. Seventy-five percent of the resources are allocated for strengthening the infrastructure, patrolling and anti-poaching duties, which are the priority activities for the protected area (PA).
8. The resources are linked to priority actions, and most of the resources are made available in time.
9. The role of NGOs is mainly in the form of mobilization of public opinion and cattle immunization programmes.
10. The performance management of all the staff members is linked to relevant management objectives and activities.
11. A coordinated system logs and responds effectively to most complaints.
12. The information available to the public depicts clearly the area of the sanctuary, its zonation plan and major sites for control and activities.
13. Visitor facilities have been created in the form of eco-friendly tented accommodation and modest room accommodation, with natural observation shades.
14. Management-related trends are systematically evaluated and reported with respect to nesting of turtles, the main target species.
15. The numbers of wild pig and spotted deer in the land area of the park are reported to have increased.
16. The marine part of the sanctuary has good populations of turtles and dolphins, which were observed by the members of the evaluation team.

B. Management Weaknesses

1. All macro floral and macro faunal values have been generally identified, but monitoring on a regular basis is done with respect to a few only.
2. The site has some threats in the land area due to grazing and illicit collection of fuel wood. Deep sea trawling outside the protected area (PA) poses a threat to turtles. The illegal entry of fishing vessels, commercial poaching and the trade in endangered marine species has been significantly addressed inside the PA.
3. The site has a comprehensive protection strategy, but this strategy is not very effective due to the absence of proper seaworthy vessels.

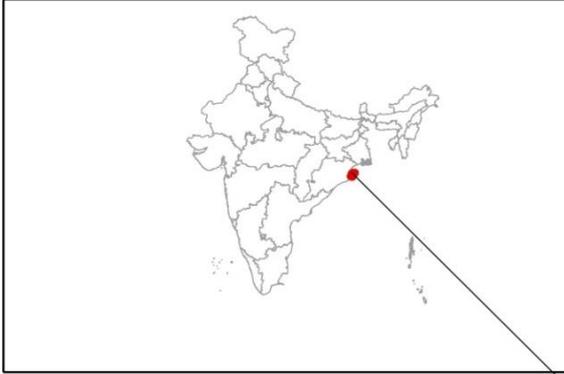
4. All field-level personnel are explicitly allocated towards specific management activities, but their numbers are inadequate.
5. The staff and infrastructure require strengthening. One proper seaworthy vessel is a must.
6. Only one trained Forest Ranger has been posted at the sanctuary. Sensitization of lower-level staff members is provided by researchers from the Wildlife Institute of India working in the area.
7. Assets and infrastructure are documented in the asset report and management plan and these provide the basis of the management schedule. However there are constraints of funds for proper maintenance.
8. Since the number of nesting turtles has gone down recently, visitors have not been fully satisfied.
9. Some renovation of cultural heritage sites has been undertaken, but the funds available are inadequate to arrest the deterioration process.

C. Actionable Points

1. This current Management Plan is the first one, therefore an update is needed.
2. The significant pressures exerted by grazing, illicit collection of fuel wood, deep sea trawling outside the PA (which threatens turtles), illegal entry of fishing vessels, commercial poaching and the trade in endangered marine species need to be addressed on a priority basis. Most threats to the site have been controlled through orders and control, but some threats from missile firing need to be addressed.
3. The site needs proper effective protection strategy to be implemented using seaworthy vessels.
4. Adequate number of trained field personnel need to be provided.
5. There are opportunities for the participation of the public in some aspects of PA management. There is ample scope to expand these.
6. There is a system for addressing complaints and taking follow-up actions. However, a complaint box needs to be placed in each Range Office and Beat Office and periodic meetings need to be organized to explain follow-up actions.
7. The constraints faced with respect to funds for proper maintenance of assets and maintaining the cultural heritage need to be addressed immediately.
8. Some neighbours and local communities are supportive to the PA management, but they want management models to be changed.
9. Steps need to be taken to determine the cause of decline in the population of nestling turtles.

77°15'0"E

Gahirmatha Wildlife Sanctuary Orissa



28°30'0"N

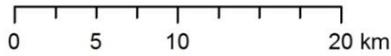
28°30'0"N



28°25'0"N

28°25'0"N

 भारतीय वन्यजीव संस्थान
Wildlife Institute of India
IT and RS & GIS Cell - 2014



Notified Area: 1435.00 Sq. km
Notification Year: 1997

77°15'0"E

1. Context

1.1 Are the values of the site well documented, assessed and monitored?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Values not systematically documented, assessed or monitored.	Poor		All macrofloral and macrofaunal values generally identified but monitoring on regular basis is done with respect to a few only.
Values generally identified but not systematically assessed and monitored.	Fair	✓	
Most values systematically identified and assessed and monitored.	Good		
All values systematically identified and assessed and monitored.	Very good		

1.2 Are the threats to site values well documented and assessed?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Threats not systematically documented or assessed.	Poor		Most of the threats to the site are well documented and periodically assessed.
Threats generally identified but not systematically assessed.	Fair		
Most threats systematically identified and assessed.	Good	✓	
All threats systematically identified and assessed.	Very good		

1.3 Is the site free from human and biotic interference?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
The site has extensive human and biotic interference.	Poor		The site has some threats in the land area due to grazing and illicit collection of firewood and threats to turtle by deep sea trawling outside the protected area.
The site has some human and biotic interference.	Fair	✓	
The site has little human and biotic interference.	Good		
The site has no human and biotic interference.	Very good		

2. Planning

2.1 Is the site properly identified (NP/WLS) and categorized (in terms of zonation) to achieve the objectives?

<i>Assessment criteria</i>			
Condition	Category*	(Tick ✓)	Remarks
Site not identified correctly or categorized.	Poor		The site has got well defined core and buffer zones.
Site identified correctly but not categorized.	Fair		
Site identified correctly but not systematically categorized.	Good		
Site identified correctly and systematically categorized with proper zonation plans.	Very good	✓	

2.2 Does the site have a comprehensive Management Plan?

<i>Assessment criteria</i>			
Condition	Category*	(Tick ✓)	Remarks
No relevant Management Plan in place.	Poor		The site has a comprehensive Management Plan based on scientific facts, but prepared mostly through departmental consultations.
Management Plan exist but not comprehensive.	Fair		
Site has a comprehensive Management Plan.	Good	✓	
Site has a comprehensive, science based Management Plan prepared through a participatory process.	Very good		

2.3 Is the Management Plan routinely and systematically updated?

<i>Assessment criteria</i>			
Condition	Category*	(Tick ✓)	Remarks
No process in place for systematic review and update of Management Plan.	Poor		This is the first Management Plan. Therefore updating will be requested in future only.
Management Plan sometimes updated in adhoc manner.	Fair		
Management Plan routinely and systematically updated.	Good	✓	
Management Plan routinely, systematically and scientifically updated through a participatory process.	Very good		

2.4 Does the site safeguards the threatened biodiversity values?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Sites does not safeguard the threatened biodiversity values.	Poor		Due to protection offered to territorial waters, the site safeguards large number of biodiversity values.
Sites safeguards a few threatened biodiversity values.	Fair		
Sites safeguards a large number of threatened biodiversity values.	Good	✓	
Sites safeguards all threatened biodiversity values.	Very good		

2.5 Are stakeholders given an opportunity to participate in planning?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Little, if any opportunity for stakeholder participation in planning.	Poor		Stakeholder participation in planning is mostly at inter departmental level.
Stakeholders participate in some planning.	Fair	✓	
Stakeholders participate in most planning processes.	Good		
Stakeholders routinely and systematically participate in all planning processes.	Very good		

2.6 Are habitat restoration programmes systematically planned and monitored?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Habitat restoration programmes are entirely adhoc.	Poor		For land area of the sanctuary the habitat improvement programmes are well planned and monitored.
Limited planning and monitoring programmes are in place for habitat restoration.	Fair		
Habitat restoration programmes are generally well planned and monitored.	Good		
Habitat restoration programmes are thoroughly planned and monitored.	Very good	✓	

2.7 Are reintroduction programmes systematically planned and monitored?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Reintroduction programmes are entirely adhoc.	Poor	✓	Not re-introduction is required.
Limited planning and monitoring programmes are in place for reintroduction programmes.	Fair		
Reintroduction programmes are generally well planned and monitored.	Good		
Reintroduction programmes are thoroughly planned and monitored.	Very good		

2.8 Does the site has an effective protection strategy?

Assessment criteria			
Condition	Category	(Tick ✓)	Remarks
Site has no protection strategy.	Poor		Site has a comprehensive protection strategy but it is not very effective due to absence of proper sea worthy vessels.
Site has an adhoc protection strategy.	Fair		
Site has a comprehensive protection strategy but is not very effective.	Good	✓	
Site has a comprehensive and very effective protection strategy.	Very good		

2.9 Has the site been effective in the mitigation of human-wildlife conflicts?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Human-wildlife conflicts are rampant.	Poor		The illegal entry of fishing vessels, commercial poaching and trade in endangered marine species have been significantly addressed inside the PA.
Site has been able to mitigate few human-wildlife conflicts.	Fair		
Site has been able to mitigate many human-wildlife conflicts.	Good	✓	
Site has been able effective in mitigating all human-wildlife conflicts.	Very good		

2.10 Is the site integrated into a wider ecological network following the principles of the ecosystem approach?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Site not integrated into a wider network/ landscape.	Poor		The entire width of 20km of coastal water extending from Dharma River mouth to Mahanadi delta is covered by the sanctuary.
Some limited attempts to integrate the site into a network/ landscape.	Fair		
Site is generally quite well integrated into a network/ landscape.	Good	✓	
Site is fully integrated into a wider network/ landscape.	Very good		

3. Inputs

3.1 Are personnel well organised and managed with access to adequate resources?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Few, if any, personnel explicitly allocated for PA management.	Poor		All field level personnel are explicitly allocated towards specific management activities, but their number is inadequate.
Some personnel explicitly allocated for PA management but not systematically linked to management objectives.	Fair		
Some personnel explicitly allocated towards achievement of specific management objectives.	Good	✓	
Adequate personnel explicitly allocated towards achievement of specific management objectives.	Very good		

3.2 Are resources (vehicle, equipment, building etc.) well organised and managed with access to adequate resources?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Few, if any, resources explicitly allocated for PA management.	Poor		75% of the resources are allocated for strengthening of infrastructure, patrolling and antipoaching duties which are the priority activities for the Protected Area.
Some resources explicitly allocated for PA management but not systematically linked to management objectives.	Fair		
Some resources explicitly allocated towards achievement of specific management objectives.	Good	✓	
Adequate resources explicitly allocated towards achievement of specific management objectives.	Very good		

3.3 Are resources (human and financial) linked to priority actions and are funds released timely?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Resource allocation is adhoc and funds are never released in time.	Poor		Resources are linked to priority actions and most of the resources are timely made available.
Some specific allocation for management of priority action and some funds released in time.	Fair		
Comprehensive formulae systematically applied to decide most resource allocation and generally funds released in time.	Good	✓	
Comprehensive formulae systematically applied to decide complete allocation of resources for management and on-time release of funds.	Very good		

3.4 What level of resources is provided by NGOs?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
NGOs contribute nothing for the management of the site.	Poor		The role of NGOs is mostly cosmetic mainly in the form mobilization of public opinion and cattle immunization programme.
NGOs make some contribution to management of the site but opportunities for collaboration are not systematically explored.	Fair	✓	
NGOs contributions are systematically sought and negotiated for the management of some site level activities.	Good		
NGOs contributions are systematically sought and negotiated for the management of many site level activities.	Very good		

3.5 Does PA manager considers resources (human and financial) to be sufficient?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Resources insufficient for most tasks.	Poor		Staff and infrastructure require strengthening. One proper sea working vessel is a must.
Resources sufficient for some tasks.	Fair	✓	
Resources sufficient for most tasks.	Good		
Resources are in excess for most tasks.	Very good		

4. Process

4.1 Does the site have trained manpower resources for effective PA management?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Very few trained officers and frontline staff in the site.	Poor		Only one trained Forest Ranger has been posted in the sanctuary. Sensitization to lower level staff is provided by WII researchers working in the area.
Few trained officers and frontline staff, who are posted in the site.	Fair	✓	
A large number of trained officers and frontline staff are posted in the site.	Good		
All trained managers and frontline staff posted in the site.	Very good		

4.2 Is PA staff performance management linked to achievement of management objectives?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
No linkage between staff performance management and management objectives.	Poor		Performance management of all staff is linked to relevant management objectives and activities.
Some linkage between staff performance management and management objectives, but not consistently or systematically assessed.	Fair		
Performance management for most staff is directly linked to achievement of relevant management objectives.	Good		
Performance management of all staff is directly linked to achievement of relevant management objectives.	Very good	✓	

4.3 Is there effective public participation in PA management?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Little or no public participation in PA management.	Poor		Opportunities for public participation are in some aspects of PA management only. There is enough scope to expand the same.
Opportunistic public participation in some aspects of PA management.	Fair	✓	
Systematic public participation in most aspects of PA management.	Good		
Comprehensive and systematic public participation in all important aspects of PA management.	Very good		

4.4 Is there a responsive system for handling complaints and comments about PA management?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
No systematic approach to handling complaints.	Poor		System of address of complaints is there and follow up actions are also in place. However then is a need to place a complaint box in all Range and Beat offices and organizing periodic meetings to explain follow up actions.
Complaints handling system operational but not responsive to individual issues and limited follow up provided.	Fair		
Coordinated system logs and responds effectively to most complaints.	Good	✓	
All complaints systematically logged in coordinated system and timely response provided with minimal repeat complaints.	Very good		

4.5 Does PA management addresses the livelihood issues of resource dependent communities especially women?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
No livelihood issues are addressed by PA management.	Poor		Livelihood issues are addressed mostly through E.D.Cs but these are also limited to activities like supply of fresh water fish, seeds, duckerries etc.
Few livelihood issues are addressed by PA management.	Fair	✓	
Substantial livelihood issues are addressed by PA management.	Good		
Livelihood issues of resource dependent communities especially women are addressed effectively by PA managers.	Very good		

5. Output

5.1 Is adequate information on PA management publicly available?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Little or no information on PA management publicly available.	Poor		Publicly available information depicts clearly the area of the sanctuary, its zonation plan and major sites for control and activities.
Publicly available information is general and has limited relevance to management accountability and the condition of public assets.	Fair		
Publicly available information provides detailed insight into major management issues for most PAs or groups of PAs.	Good	✓	
Comprehensive reports are routinely provided on management and condition of public assets in all PAs or groups of PAs.	Very good		

5.2 Are visitor services (tourism and interpretation) and facilities appropriate for the relevant protected area category?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Visitor services and facilities are at odds with relevant PA category and/or threaten PA values.	Poor		Visitor facilities have been created through eco-friendly tented accommodation and modest room accommodation with natural observation shades.
Visitor services and facilities generally accord with relevant PA category and don't threaten PA values.	Fair		
All visitor services and facilities accord with relevant PA category and most enhance PA values.	Good	✓	
All visitor services and facilities accord with relevant PA category and enhance PA values.	Very good		

5.3 Are management related trends systematically evaluated and routinely reported?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Little or no systematic evaluation or routine reporting of management related trends.	Poor		Management related trends are systematically evaluated and reported with respect to nesting of turtles, the main target species.
Some evaluation and reporting undertaken but neither systematic nor routine.	Fair		
Systematic evaluation and routine reporting of management related trends undertaken.	Good	✓	
Systematic evaluation and comprehensive reporting of management related trends undertaken.	Very good		

5.4 Is there a systematic maintenance schedule and funds in place for management of infrastructure/assets?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
No systematic inventory or maintenance schedule.	Poor		Assets created are documented in the report and management plan and those provide the basis of management schedule. However there are constraint of fund for proper maintenance.
Inventory maintenance is adhoc and so is the maintenance schedule.	Fair		
Systematic inventory provides the basis for maintenance schedule but funds are inadequately made available.	Good	✓	
Systematic inventory provides the basis for maintenance schedule and adequate funds are made available.	Very good		

6. Outcomes

6.1 Are threatened/ endangered species populations stable or increasing?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Threatened/ endangered species populations declining.	Poor		There is reported increase in wild pig and spotted deer in the land area of the park, but nesting number of turtles appears to have gone down in recent years.
Some threatened/ endangered species populations increasing, most others stable.	Fair	✓	
Most threatened/ endangered species populations increasing, most others stable.	Good		
All threatened/ endangered species populations either increasing or stable.	Very good		

6.2 Are biological communities at a mix of ages and spacings that will support native biodiversity?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Biological communities unlikely to be able to sustain native biodiversity.	Poor		The marine part of the sanctuary displayed good population of turtles and dolphins as seen by the members of the team.
Some biological communities likely to be able to sustain native biodiversity.	Fair		
Most biological communities likely to be able to sustain native biodiversity.	Good	✓	
All biological communities likely to be able to sustain native biodiversity.	Very good		

6.3 Have the threats to the site being abated/ minimized?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Threats to the site have not abated but have enhanced.	Poor		Most threats to the site have been controlled through orders and control, but some threats from missile firing in need to be addressed.
Some threats to the site have been abated.	Fair		
Most threats to the site have been abated.	Good	✓	
All threats to the site have been abated.	Very good		

6.4 Are the expectations of visitors generally met or exceeded?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Expectations of visitors generally not met.	Poor		Since the nesting number of turtles has gone down in recent period, the visitors are not fully satisfied.
Expectations of many visitors are met.	Fair	✓	
Expectations of most visitors are met.	Good		
Good expectations of most visitors are met.	Very good		

6.5 Are neighbours and adjacent communities supportive of PA management?

Assessment criteria			
Condition	Category	(Tick ✓)	Remarks
Neighbours/adjacent communities are hostile.	Poor		Some neighbors and communities are supportive of PA management but they want management models to be changed.
Key neighbours/communities are supportive.	Fair	✓	
Most neighbours/communities are supportive of PA management.	Good		
All neighbours and communities supportive of PA management.	Very good		

6.6 Are cultural heritage assets protected?

Assessment criteria			
Condition	Category	(Tick ✓)	Remarks
Little or no management undertaken, or despite management efforts, deterioration of cultural heritage assets continues, or values are unknown.	Poor		Some renovation to cultural heritage site has been undertaken but funds are inadequate to arrest the deterioration process.
Some management activity, but deterioration continues.	Fair	✓	
Planned approach to management underway and deterioration of assets is being redressed.	Good		
Planned approach to management underway and deterioration of assets is being significantly redressed.	Very good		

MEE Score Card

Framework Element Number	Framework Element Name	Number of Questions (a)	Maximum Mark per question (b)	Total (a x b)	Marks obtained for the Element	Overall Score
1.	Context	03	10	30	17.5	66.7%
2.	Planning	10	10	100	72.5	
3.	Inputs	05	10	50	32.5	
4.	Process	05	10	50	32.5	
5.	Outputs	04	10	40	30	
6.	Outcomes	06	10	60	35	
Total		33		330*	220	

* The six Framework Elements were subsequently assigned equal weightage of 100 each. The total MEE score is 600 out of which this site has score 394.2 or 65.7%

4. CHANDAKA-DAMPARA WILDLIFE SANCTUARY, ODISHA MEE Year (2009–10)

A. Management Strengths

1. The core, buffer and tourism zones have been defined well.
2. There is a management plan for the sanctuary.
3. There are comprehensive strategies and consistent efforts have been made during the last two decades for protection. Anti-poaching squads are also at strategic places for the protection.
4. The site is integrated fairly well into the network/landscape. A corridor with forests across river Mahanadi is being in use southward.
5. Despite the vacancies in the posts of Forest Guards, the sanctioned strength and number of personnel in position are very satisfactory.
6. The resources have improved recently with the introduction of compensatory afforestation, finance commission, eco-tourism funds, etc.
7. The sanctuary management is able to draw on substantial resources.
8. The resources are sufficient for most of the tasks.
9. A large number of trained officers and frontline staff members have been posted at the site.
10. The performance management of most of the staff members has been directly linked to achievement of relevant management objectives.
11. Attempts have been made to involve the people living on the fringes of the site in mitigating the impacts of tourism through EDCs. These attempts are laudable.
12. The prevention and mitigation of man–animal conflicts along the boundary with an urban area have been excellent.
13. The information available to the public provides detailed insights into major management issues.
14. All visitor services and facilities accord with the relevant PA category and most of them enhance the PA values.
15. Estimation and monitoring of wildlife populations are carried out in a participatory mode.
16. The expectations of most of the visitors are met.
17. Most of the neighbours are supportive to the PA management.

B. Management Weaknesses

1. Threats and values have been identified, but they are not systematically assessed.
2. The key to habitat restoration within the core zone is restricting biotic interference, whereas in the draft management plan the major thrust is on habitat improvement.
3. Large number of vacancies of posts of Forest Guards, (18 posts are vacant out of 44 sanctioned).
4. Loss of human life and property has been contained, but because of the pressures on the fauna, there is considerable scope for improvement.
5. There is a sanctuary advisory committee in place, but it does not meet frequently.
6. The size of the resource-dependent population is significant and thus meeting livelihood issues is a challenge.

C. Actionable Points

1. The values and threats of the site need to be assessed systematically.
2. There is a high level of biotic interference almost everywhere in the area. The attempts made to minimize impacts are noteworthy, but they need to be more focused on removal and rehabilitation of villagers. The threat mitigation is effective, but there is scope for improving the co-ordination in rehabilitating the hamlets within the core zone and restoring the habitat.
3. The draft management plan needs to be scrutinized and approved by the competent authority after due consultations with the statutory committee. There is only one draft plan for the period from 2007–2008 to 2016–2017. This too has lacked the approval of the competent authority for the last three years. Further, the plan needs to be in tune with the guidelines of the WII.
4. With Nandan Kanan Zoo and regional plant resource centres being located close to the site, there is scope for reintroduction of animals and plants such as sambar, crocodiles and otters.
5. The northern corridor needs to be strengthened to have a wider network of PAs.
6. Staff members need to be appointed for nature interpretation and education.
7. Specialized skills need to be developed/ strengthened. Senior-level staff members need to be exposed to recent wildlife management techniques.
8. According to the records, since 2001 the elephant population has ranged between 58 and 67 individuals; however, it is still being sustained mainly in the fringe area, as the core is not fully secure. A greater emphasis on habitat improvement in general and fodder/forage in particular is needed.
9. With the region having very rich cultural sources, those within the PA have not been studied/ documented thoroughly. There is scope for conducting an in-depth study by an expert.

Chandaka Dampara Wildlife Sanctuary Orissa



28°30'0"N

28°30'0"N

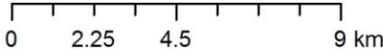
28°25'0"N

28°25'0"N

77°15'0"E

77°15'0"E

 भारतीय वन्यजीव संस्थान
Wildlife Institute of India
IT and RS & GIS Cell - 2014



Notified Area: 175.79 Sq. km
Notification Year: 1982

1. Context

1.1 Are the values of the site well documented, assessed and monitored?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Values not systematically documented, assessed or monitored.	Poor		Statement of significance provided Vide para 1.3 of the [draft] Management plan, but still leaves scope for improvement values [proximity to Capital city & other urban area, approachability, possible linkages with centers of academic studies, etc.
Values generally identified but not systematically assessed and monitored.	Fair	✓	
Most values systematically identified and assessed and monitored.	Good		
All values systematically identified and assessed and monitored.	Very good		

1.2 Are the threats to site values well documented and assessed?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Threats not systematically documented or assessed.	Poor		Para 3.6.3 of the draft plan provides in brief information on poaching/ illicit felling/ grazing etc for last five years only/ some of the threats not fully recorded i.e. adverse impact of hamlets within.
Threats generally identified but not systematically assessed.	Fair	✓	
Most threats systematically identified and assessed.	Good		
All threats systematically identified and assessed.	Very good		

1.3 Is the site free from human and biotic interference?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
The site has extensive human and biotic interference.	Poor		Almost entire area has high biotic interferences attempts to minimize impacts are note worthy but need be more focused on removal and rehabilitation of villagers.
The site has some human and biotic interference.	Fair	✓	
The site has little human and biotic interference.	Good		
The site has no human and biotic interference.	Very good		

2. Planning

2.1 Is the site properly identified (NP/WLS) and categorized (in terms of zonation) to achieve the objectives?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Site not identified correctly or categorized.	Poor		Core/ buffer tourism zones are well defined but the buffer is part of the sanctuary / there are three satellite areas and there is effort [rather weak] to link the same. Concerted efforts called for to enhance the area that is tenuous corridor north wards across the river Mahanadi
Site identified correctly but not categorized.	Fair		
Site identified correctly but not systematically categorized.	Good	✓	
Site identified correctly and systematically categorized with proper zonation plans.	Very good		

2.2 Does the site have a comprehensive Management Plan?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
No relevant Management Plan in place.	Poor		Only one Draft plan for 2007 -8 to 2016 -17 available; it lacks authentic approval of authority competent [CWLW] sine last three years; plan need be in tune with WII guide lines.
Management Plan exist but not comprehensive.	Fair	✓	
Site has a comprehensive Management Plan.	Good		
Site has a comprehensive, science based Management Plan prepared through a participatory process.	Very good		

2.3 Is the Management Plan routinely and systematically updated?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
No process in place for systematic review and update of Management Plan.	Poor		Though sanctuary has been established since 1982 there was no approved plan earlier. Present draft plan need be scrutinized and approved by the authority competent after due consultation with the statutory committee.
Management Plan sometimes updated in adhoc manner.	Fair	✓	
Management Plan routinely and systematically updated.	Good		
Management Plan routinely, systematically and scientifically updated through a participatory process.	Very good		

2.4 Does the site safeguards the threatened biodiversity values?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Sites does not safeguard the threatened biodiversity values.	Poor		Main thrust is to minimize man elephant conflicts by substantial investment creating barriers [EPT / solar powered electric fence etc] on the periphery and loss to life and property has been contained ; but there is need to prioritize habitat improvement by means like eradication of weeds / increase in fodder for the key stone species, the elephant and other herbivores. Other (non major mammalian) biodiversity values not addressed adequately. Appendix IV based Floral biodiversity restoration needed.
Sites safeguards a few threatened biodiversity values.	Fair	✓	
Sites safeguards a large number of threatened biodiversity values.	Good		
Sites safeguards all threatened biodiversity values.	Very good		

2.7 Are stakeholders given an opportunity to participate in planning?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Little, if any opportunity for stakeholder participation in planning.	Poor		Advisory committee in place but it is not meeting regularly/ draft plan may be placed before the committee for scrutiny & suggestions.
Stakeholders participate in some planning.	Fair		
Stakeholders participate in most planning processes.	Good	✓	
Stakeholders routinely and systematically participate in all planning processes.	Very good		

2.6 Are habitat restoration programmes systematically planned and monitored?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Habitat restoration programmes are entirely adhoc.	Poor		Key to habitat restoration within the core zone is restricting biotic interferences. Where as in the [draft] plan major thrust is on habitat improvement (Rs,13.994 of total out lay of 97.786 million /annum) [without site details], actual demand and utilization during last three years ranges from 1.3 to 3 lakhs only.
Limited planning and monitoring programmes are in place for habitat restoration.	Fair	✓	
Habitat restoration programmes are generally well planned and monitored.	Good		
Habitat restoration programmes are thoroughly planned and monitored.	Very good		

2.7 Are reintroduction programmes systematically planned and monitored?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Reintroduction programmes are entirely adhoc.	Poor		With Nandan Kanan zoo and Regional plant resource centers in close proximity, there is scope for re introduction of floral and faunal species i.e. Sambar / crocodiles / otter (?) / guar. There is need to flag this aspect in the plan.
Limited planning and monitoring programmes are in place for reintroduction programmes.	Fair	✓	
Reintroduction programmes are generally well planned and monitored.	Good		
Reintroduction programmes are thoroughly planned and monitored.	Very good		

2.8 Does the site has an effective protection strategy?

Assessment criteria			
Condition	Category	(Tick ✓)	Remarks
Site has no protection strategy.	Poor		There is a comprehensive strategy and consistent efforts during last two decades; there're anti poaching squads located at strategic places.
Site has an adhoc protection strategy.	Fair		
Site has a comprehensive protection strategy but is not very effective.	Good	✓	
Site has a comprehensive and very effective protection strategy.	Very good		

2.9 Has the site been effective in the mitigation of human-wildlife conflicts?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Human-wildlife conflicts are rampant.	Poor		Loss of human life and property has been contained but pressures on the wild fauna leaves lot of scope for improvement.
Site has been able to mitigate few human-wildlife conflicts.	Fair	✓	
Site has been able to mitigate many human-wildlife conflicts.	Good		Eco development in peripheral areas is being used as a tool but more meaningful and effective reciprocal commitments called for.
Site has been able effective in mitigating all human-wildlife conflicts.	Very good		

2.10 Is the site integrated into a wider ecological network following the principles of the ecosystem approach?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Site not integrated into a wider network/ landscape.	Poor		A corridor with forests across river Mahanadi is being in use/ movement southward to Barbera forest has occasionally taken place. Northern corridor need be strengthened.
Some limited attempts to integrate the site into a network/ landscape.	Fair		
Site is generally quite well integrated into a network/ landscape.	Good	✓	
Site is fully integrated into a wider network/ landscape.	Very good		

3. Inputs

3.1 Are personnel well organised and managed with access to adequate resources?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Few, if any, personnel explicitly allocated for PA management.	Poor		Except for the large vacancies in Forest guards [18 out of 44] Personnel strength sanctioned & in position, is generally very good. Staff for Nature interpretation/ education is necessary.
Some personnel explicitly allocated for PA management but not systematically linked to management objectives.	Fair		
Some personnel explicitly allocated towards achievement of specific management objectives.	Good	✓	
Adequate personnel explicitly allocated towards achievement of specific management objectives.	Very good		

3.2 Are resources (vehicle, equipment, building etc.) well organised and managed with access to adequate resources?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Few, if any, resources explicitly allocated for PA management.	Poor		Over position of resources has improved recently with Compensatory Afforestation, Finance commission, Eco tourism funds, etc.
Some resources explicitly allocated for PA management but not systematically linked to management objectives.	Fair		
Some resources explicitly allocated towards achievement of specific management objectives.	Good	✓	
Adequate resources explicitly allocated towards achievement of specific management objectives.	Very good		

3.3 Are resources (human and financial) linked to priority actions and are funds released timely?

Assessment criteria																							
Condition	Category*	(Tick ✓)	Remarks																				
Resource allocation is adhoc and funds are never released in time.	Poor		Presently, priority is preventing possible loss to property and human life and protecting the key stone species. With release of funds as under Gol fund release and its utilization, is good.																				
Some specific allocation for management of priority action and some funds released in time.	Fair																						
Comprehensive formulae systematically applied to decide most resource allocation and generally funds released in time.	Good	✓																					
Comprehensive formulae systematically applied to decide complete allocation of resources for management and on-time release of funds.	Very good																						
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2009-10	08/ 2009		237.42 [released]																				

3.4 What level of resources is provided by NGOs?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
NGOs contribute nothing for the management of the site.	Poor		The sanctuary management is able to draw substantial resources and considering its delivery system limited assistance from out side is not a limiting factor.
NGOs make some contribution to management of the site but opportunities for collaboration are not systematically explored.	Fair	✓	
NGOs contributions are systematically sought and negotiated for the management of some site level activities.	Good		
NGOs contributions are systematically sought and negotiated for the management of many site level activities.	Very good		

3.5 Does PA manager considers resources (human and financial) to be sufficient?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Resources insufficient for most tasks.	Poor		But for the lacks thrust on Nature interpretation /education and research & monitoring, other resources are adequate.
Resources sufficient for some tasks.	Fair		
Resources sufficient for most tasks.	Good	✓	
Resources are in excess for most tasks.	Very good		

4. Process

4.1 Does the site have trained manpower resources for effective PA management?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Very few trained officers and frontline staff in the site.	Poor		Specialized skills need be developed /strengthened. Senior level staff need be exposed to recent wild life management techniques.
Few trained officers and frontline staff, who are posted in the site.	Fair		
A large number of trained officers and frontline staff are posted in the site.	Good	✓	
All trained managers and frontline staff posted in the site.	Very good		

4.2 Is PA staff performance management linked to achievement of management objectives?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
No linkage between staff performance management and management objectives.	Poor		
Some linkage between staff performance management and management objectives, but not consistently or systematically assessed.	Fair		
Performance management for most staff is directly linked to achievement of relevant management objectives.	Good	✓	
Performance management of all staff is directly linked to achievement of relevant management objectives.	Very good		

4.3 Is there effective public participation in PA management?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Little or no public participation in PA management.	Poor		Sanctuary advisory committee in place, but does not meet frequently. Attempts made for involving fringe human population in mitigation of tourist impact through EDCs is laudable.
Opportunistic public participation in some aspects of PA management.	Fair	✓	
Systematic public participation in most aspects of PA management.	Good		
Comprehensive and systematic public participation in all important aspects of PA management.	Very good		

4.4 Is there a responsive system for handling complaints and comments about PA management?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
No systematic approach to handling complaints.	Poor		Excellent so far as prevention & mitigation of man animal conflicts along the boundary with urban area.
Complaints handling system operational but not responsive to individual issues and limited follow up provided.	Fair		
Coordinated system logs and responds effectively to most complaints.	Good	✓	
All complaints systematically logged in coordinated system and timely response provided with minimal repeat complaints.	Very good		

4.5 Does PA management addresses the livelihood issues of resource dependent communities especially women?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
No livelihood issues are addressed by PA management.	Poor		Population of resource dependent population is substantial and thus meeting livelihood issues is a challenge.
Few livelihood issues are addressed by PA management.	Fair	✓	
Substantial livelihood issues are addressed by PA management.	Good		
Livelihood issues of resource dependent communities especially women are addressed effectively by PA managers.	Very good		

5. Output

5.1 Is adequate information on PA management publicly available?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Little or no information on PA management publicly available.	Poor		
Publicly available information is general and has limited relevance to management accountability and the condition of public assets.	Fair		
Publicly available information provides detailed insight into major management issues for most PAs or groups of PAs.	Good	✓	
Comprehensive reports are routinely provided on management and condition of public assets in all PAs or groups of PAs.	Very good		

5.2 Are visitor services (tourism and interpretation) and facilities appropriate for the relevant protected area category?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Visitor services and facilities are at odds with relevant PA category and/or threaten PA values.	Poor		
Visitor services and facilities generally accord with relevant PA category and don't threaten PA values.	Fair		
All visitor services and facilities accord with relevant PA category and most enhance PA values.	Good	✓	
All visitor services and facilities accord with relevant PA category and enhance PA values.	Very good		

5.3 Are management related trends systematically evaluated and routinely reported?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Little or no systematic evaluation or routine reporting of management related trends.	Poor		Wild life population estimation/ monitoring done in participatory mode.
Some evaluation and reporting undertaken but neither systematic nor routine.	Fair	✓	
Systematic evaluation and routine reporting of management related trends undertaken.	Good		
Systematic evaluation and comprehensive reporting of management related trends undertaken.	Very good		

5.4 Is there a systematic maintenance schedule and funds in place for management of infrastructure/assets?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
No systematic inventory or maintenance schedule.	Poor		
Inventory maintenance is adhoc and so is the maintenance schedule.	Fair	✓	
Systematic inventory provides the basis for maintenance schedule but funds are inadequately made available.	Good		
Systematic inventory provides the basis for maintenance schedule and adequate funds are made available.	Very good		

6. Outcomes

6.1 Are threatened/ endangered species populations stable or increasing?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Threatened/ endangered species populations declining.	Poor		As per the records, since 2001 to this date elephant population has ranged between 58 to 67. How ever, it is still being sustained mainly in the fringe area, as the core is not fully secure /there need for greater emphasis on habitat improvement in general and fodder/forage in particular.
Some threatened/ endangered species populations increasing, most others stable.	Fair	✓	
Most threatened/ endangered species populations increasing, most others stable.	Good		
All threatened/ endangered species populations either increasing or stable.	Very good		

6.2 Are biological communities at a mix of ages and spacings that will support native biodiversity?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Biological communities unlikely to be able to sustain native biodiversity.	Poor		
Some biological communities likely to be able to sustain native biodiversity.	Fair	✓	
Most biological communities likely to be able to sustain native biodiversity.	Good		
All biological communities likely to be able to sustain native biodiversity.	Very good		

6.3 Have the threats to the site being abated/ minimized?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Threats to the site have not abated but have enhanced.	Poor		Threat mitigation effective but scope to improve co-ordination required for the rehabilitation on the hamlets within the core zone and improve habitat.
Some threats to the site have been abated.	Fair	✓	
Most threats to the site have been abated.	Good		
All threats to the site have been abated.	Very good		

6.4 Are the expectations of visitors generally met or exceeded?

Assessment criteria			
Condition	Category*	(Tick ✓)	Remarks
Expectations of visitors generally not met.	Poor		
Expectations of many visitors are met.	Fair		
Expectations of most visitors are met.	Good	✓	
Good expectations of most visitors are met.	Very good		

6.5 Are neighbours and adjacent communities supportive of PA management?

Assessment criteria			
Condition	Category	(Tick ✓)	Remarks
Neighbours/adjacent communities are hostile.	Poor		
Key neighbours/communities are supportive.	Fair		
Most neighbours/communities are supportive of PA management.	Good	✓	
All neighbours and communities supportive of PA management.	Very good		

6.6 Are cultural heritage assets protected?

Assessment criteria			
Condition	Category	(Tick ✓)	Remarks
Little or no management undertaken, or despite management efforts, deterioration of cultural heritage assets continues, or values are unknown.	Poor		With very rich cultural sources in the region those within the PA have not been studied / documented thoroughly. There is scope for in depth study by expert.
Some management activity, but deterioration continues.	Fair	✓	
Planned approach to management underway and deterioration of assets is being redressed.	Good		
Planned approach to management underway and deterioration of assets is being significantly redressed.	Very good		

MEE Score Card

Framework Element Number	Framework Element Name	Number of Questions (a)	Maximum Mark per question (b)	Total (a x b)	Marks obtained for the Element	Overall Score
1.	Context	03	10	30	15	61%
2.	Planning	10	10	100	60	
3.	Inputs	05	10	50	35	
4.	Process	05	10	50	32.5	
5.	Outputs	04	10	40	25	
6.	Outcomes	06	10	60	35	
Total		33		330*	202.5	

* The six Framework Elements were subsequently assigned equal weightage of 100 each. The total MEE score is 600 out of which this site has score -----%

5. NALABANA (CHILIKA) WILDLIFE SANCTUARY, ODISHA

MEE Year (2012-13)

A. Management Strengths

1. The sanctuary has large, undisturbed mud flats, which support very large congregations of wintering birds in the Chilika lagoon.
2. Due to the complete protection that has been afforded, the sanctuary holds a vast genetic pool and large fishery resources and thus has an important and major source population for fisheries.
3. The sanctuary is representative of the structural and functional diversity of Chilika lagoon and highlights its ecological and physical features.
4. Chilika lagoon is the first Indian wetland of international importance to be brought under the Ramsar Convention, which was done in 1981. However, it was being subjected to unregulated use, and so it was brought under the Montreux Record (threatened Ramsar site) in 1993. Due to innovative and exemplary remedial efforts undertaken by the CDA and the state government, including declaration of the protected area (PA) as a closed area, Chilika was removed from the Montreux Register with effect from 11 November 2002. In the process the CDA, which has won many international (Ramsar Wetland Conservation Award) and national awards, has come out as a very strong and technically competent institution in the region for championing the cause of wetland and environment conservation and ecosystem-supported development.
5. The close linkage with the CDA provides high-quality scientific and managerial support.
6. The presence of the Irrawaddy dolphin gives Chilika a unique position in the conservation arena.

B. Management Weaknesses

1. The sanctuary does not have a dedicated managerial position. It is managed by the DFO, Chilika Wildlife Division, who has many islands and reserved forests under his jurisdiction, in addition to the sanctuary. The sanctuary does not have an exclusive Warden and Assistant Warden, which weakens the focus on sanctuary management.
2. While the DFO is professionally trained in wildlife management, the staff are inadequately trained in both skills and knowledge of wildlife management. While the assistance of the CDA and BNHS does expose the frontline staff to the techniques of bird identification and dolphin estimation, the larger issues confronting the conservation and management of the sanctuary require additional training and exposure.
3. There is inadequacy in district-level coordination due to the spread of the jurisdiction of the DFO, Chilika Wildlife Division, across three districts (Puri, Khurda and Ganjam). Coordinating with the administration of three districts and the various forestry and wildlife works leave very little time for the DFO to concentrate on the many issues related to effective sanctuary management.
4. Conservation efforts are severely threatened by unregulated movement of petrol/kerosene/diesel-powered boats and people in the lagoon, without appropriate regulations or restrictions set by the Forest/Wildlife authorities in terms of disturbing the avifauna and aquatic fauna.

5. The effluents discharged in the lagoon by 52 rivers and rivulets bring a large quantity of pollutants and silt that are harmful to the ecosystem.
6. Prawn culture and fisheries are the major sources of livelihood of the local people. However, the greed to make more money and the influence of vested interests promote illegal practices, including degradation of the mudflats by deepening and putting up extensive nets in the water, causing a severe obstruction to the movement of aquatic fauna, including dolphins.
7. The ecosystem of Chilika lagoon is known for its large fishery resource, which is reported to produce 14,000 million tons annually and sustains more than
8. 2,00,000 fisher folk living in 132 villages along the shore and on islands who are heavily dependent on the lagoon for their livelihood. This places a tremendous pressure on the ecosystem. In the past, illegal prawn gheries severely affected the wetland.
9. The dialogue between the management of the sanctuary and fishing communities is inadequate, and there is almost no participation of the locals in management, which are significant weaknesses.
10. An over-dependence on the CDA for education and interpretative programmes without the active participation of the PA management weakens the purpose of focusing the conservation values of the PA and obtaining the support of local people.
11. The sanctuary management is weak in dedicated, sanctuary-run monitoring and research programmes. Although the CDA has an excellent monitoring programme for the lagoon, the sanctuary needs to internalize regular monitoring of many management issues confronting the sanctuary.

C. Actionable Points

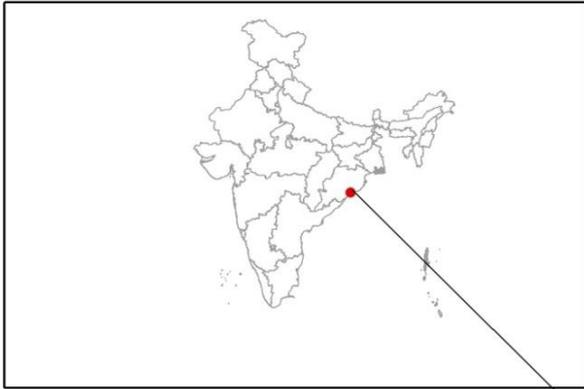
1. The sanctuary may be placed under the exclusive control of a Wildlife Warden (ACF), with an Assistant Wildlife Warden (RO), under the overall charge of the DFO, Chilika.
2. The RO may undergo training at the Wildlife Institute of India.
3. Infrastructural support should be provided immediately in the form of at least five fast boats and five more patrolling stations with adequate staff support.
4. The staff should be insured for health and against accidents.
5. The sanctuary is a very small portion of the lagoon and needs to be strengthened by declaration of more areas of the lagoon that are rich in biodiversity as part of the sanctuary or as conservation reserves for meaningful conservation. The idea and feasibility of having mini core areas may be explored.
6. The eco-sensitive zone should also be declared immediately, in compliance with the order of the Hon'ble Supreme Court.
7. The organic relationship between the CDA and the sanctuary management needs to be highlighted, and the CDA-initiated integrated area development programme should be actively pursued to bring in different agencies together for the common goal of integrating conservation and development of the entire Chilika lagoon.
8. The CDA may be empowered to regulate various activities in the entire lagoon, with enabling support from the district administration and Forest Department.
9. The sanctuary management should immediately start a dialogue with the neighbouring communities with the view of disseminating the values of the sanctuary and assisting the communities with livelihood security activities. Small community-based fishery resource use programmes should be devised and implemented with the view of stocking the fishery

resources, and the sanctuary management should take proactive parts in these programmes. Since such programmes are promoted by the CDA, the PA/Wildlife Division may take them up within their areas.

10. An effective and professionally designed sanctuary interpretation programme should be developed to disseminate the values of the sanctuary to the people. Instead of creating a separate interpretation centre, the facilities created by the CDA, as an active partner, may be utilized.
11. The sanctuary management, along with the CDA, should discuss with the Tourism Department the organization of a community-based eco-tourism programme in the lagoon as well as in the sanctuary with the objective of regulating the movement of people and boats in the area and improving the livelihoods of locals. This should inter alia include the procedure for registration of boats with the Forest Department for movement within eco-sensitive zones.
12. The 11 KV power line going to village Brahamapura may be insulated to prevent accidents to migratory birds.
13. The sanctuary management should maintain records of the various aspects of the sanctuary. The CDA has 10 monitoring stations, one of which is the sanctuary. The sanctuary management should collect relevant information from the CDA and begin maintaining its own records.
14. Conversion of mudflats to prawn farms and reclamation of wetlands as a result of which they become hard ground must be prevented.

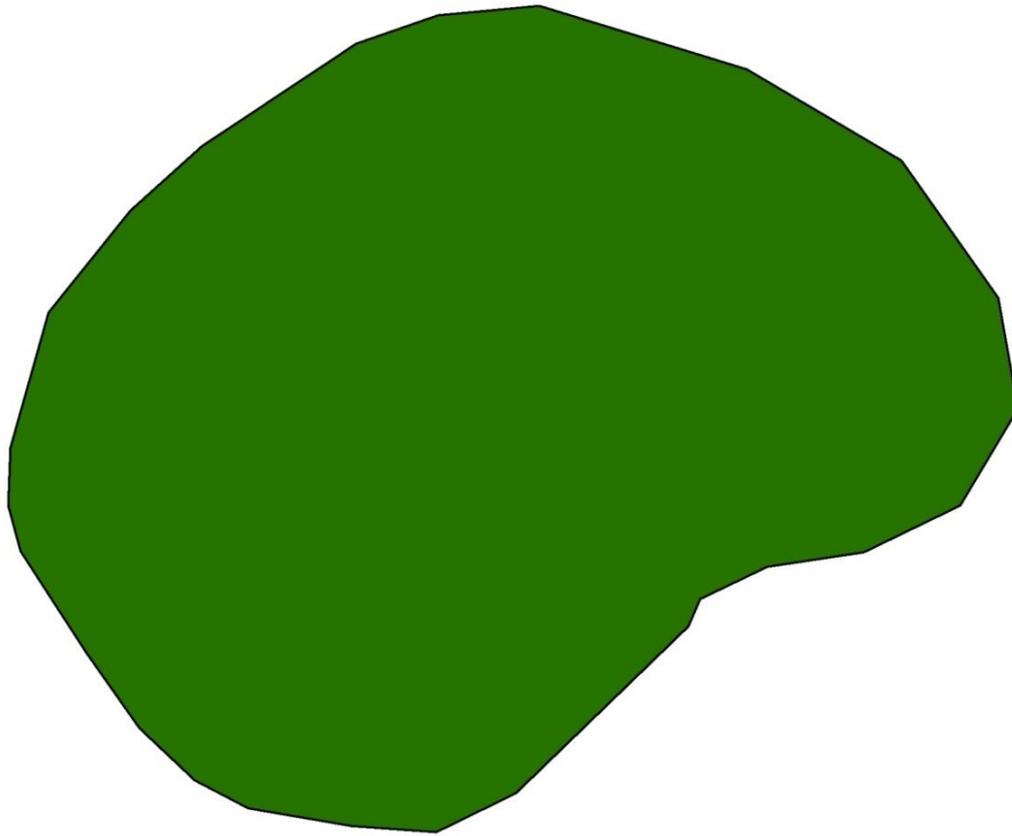
77°15'0"E

Chilika (Nalaban) Wildlife Sanctuary Orissa



28°30'0"N

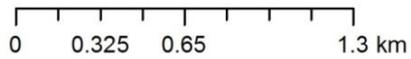
28°30'0"N



28°25'0"N

28°25'0"N

 भारतीय वन्यजीव संस्थान
Wildlife Institute of India
IT and RS & GIS Cell - 2014



Notified Area: 15.53 Sq. km
Notification Year: 1987

77°15'0"E

1. Context

1.1 Are the values of the site well documented, assessed and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Values not systematically documented, assessed or monitored.	Poor		Management Plan (2006-07 to 2012-16), Reports from Chilika Development Authority (CDA) and discussion with PA authorities and CDA authorities	Nalabana WLS, a small, partly submerged and marshy island with area of 15.53 km ² area, is a representative unit of the Chilika lake, the largest brackish water lagoon in the country. The water spread of the lagoon varies from 1165 km ² (in rains) to 960 km ² (in summer). About 52 numbers of rivers and rivulets drains into the lake .The lagoon has a mouth linked with sea on the eastern side and is extremely important to maintain the brackish water characteristics of this wet land. It acts as a source for fisheries resources of the lagoon, contains some of the largest congregation of migratory birds, has a range of aquatic flora and fauna, and provides habitat for Irrawaddy Dolphin. The lagoon harbours 399 species of phytoplankton, 22 algae, 720 flowering plants, constituting 27% of state's flora; 267 species of fish, 7 amphibians, 30 reptiles, including rare and endangered limbless skink (<i>Barkudia insularis</i>), 225 birds and 18 mammals. Globally significant migratory birds like Geese, Ducks, Pelicans, and Flamingos etc visit the PA/ Wet land every year in large number and studies suggest that they gain significant wait before their return to cold latitudes. Chilika Lagoon has been designated a wet land of international importance, i.e, "Ramsar Site" in 1981. Detailed Survey of flora and fauna has been carried out from time to time, mostly by the sponsorship of Chilika Development Authority (CDA), responsible for the management of the wet land. Most of the species have been listed by CDA and provided to the PA. Major components have been included in the Management Plan. The geo-morphological, hydrological, economic and cultural values of the wetland are described in the plan.
Values generally identified but not systematically assessed and monitored.	Fair			
Most values systematically identified and assessed and monitored.	Good			
All values systematically identified and assessed and monitored.	Very good	✓		

*Values would also include geo-morphological, historico-cultural and faunal and floral species.

1.2 Are the threats to site values well documented and assessed?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats not systematically documented or assessed.	Poor		Management Plan (2006-07 to 2012-16), official notifications, reports from Chilika Development Authority (CDA) and discussion with PA authorities and CDA authorities.	Vide notification No. 10 F (W)11?73-216094/FAH, dated 15 th October 1973 the entire Chilika lagoon was closed for hunting.
Threats generally identified but not systematically assessed.	Fair			Vide notification No. 8 F (W) 68/87(PT).23403/FFH, dated 17 th December 1987, the Nalabana island of the Chilika lake with a buffer zone of 1 km was declared as a Chilika (Nalabana) Sanctuary for the purpose of wildlife conservation. The total area of the Sanctuary is 1553 ha, consisting of 672 ha core and 881 ha buffer.
Most threats systematically identified and assessed.	Good			The threats have been identified in the management plan, which include unregulated fishing, unregulated tourism, siltation of lagoon, invasion of mud flats by <i>Salicornia brachiata</i> , misuse of provisions of traditional fishing by extending the length of nets beyond 50 m and Dolphin deaths due to accidental trapping in the nets. While the PA is protected, the surrounding lagoon area remains exposed to all threats listed above and the PA has to be always on vigil.
All threats systematically identified and assessed.	Very good	✓		Interestingly, the entire lagoon including the PA falls under category of Revenue Lands. With the notification of the Chilika (Nalabana) Sanctuary, provisions of the WLP Act, 1972 are applicable and the land has been completely secured for wildlife conservation. Additionally, the Government have consciously notified a few block of islands under Section 4(1) notification of Odissa Forest Act 1972, which makes the status of such land as proposed reserved forests. The PA authorities have raised Casuarina shelterbelt plantations there and some areas are now being used for nesting by white bellied sea eagle, brahmini kite, peafowl etc. prompting the PA authorities to close felling of casuarinas trees for firewood, which was permitted in the past for Jagannath temple kitchen.

* This assessment should be based on number, nature and extent of threats. Threats within and outside PA should both be considered. Impacts, if any on the population abundance of key species may be indicated in the remarks.

1.3 Is the site free from human and biotic interference?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
The site has extensive human and biotic interference.	Poor		Management Plan and discussions	There is no village inside the PA, however threats of biotic interference from outside the PA exist. The local fishermen community pressurizes the PA management for fishing permission within the PA boundaries. So far, the management has strongly resisted it. Outside the park, there are areas such as Tangi, where large congregation of wintering birds is seen. Poaching of birds take place in such areas, which the PA authorities try to prevent by appointing more staff, engaging about 50 local village persons on daily wages for about 5 months and through village committees.
The site has some human and biotic interference.	Fair			
The site has little human and biotic interference.	Good	✓		
The site has no human and biotic interference.	Very good			

*This assessment should be based on existence of human settlements/ villages; livestock grazing, cultivation, encroachments etc, resource extraction/ livelihood dependence of local communities and should reflect the overall interference due to all the above factors. Number and size of human settlements/ enclaved villages and their impacts on the site may be indicated in the Remarks.

2. Planning

2.1 Is the site properly identified (NP/WLS) and categorized (in terms of zonation) to achieve the objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not identified correctly or categorized.	Poor		Management Plan and discussions with PA authorities and CDA authorities	The Sanctuary area was identified due to regular and large congregation of migratory birds, which necessitated protection of the area under WLP Act 1972, even though the land did not belong to the Forest Department. In the notification, the area was also divided into core and buffer zone. This might be perhaps the only Sanctuary, where the core and buffer have been notified in the government notification. The first management plan was prepared during 2006, wherein buffer area has been defined as socio-buffer and extension buffer and provisions for tourism buffer have been given.
Site identified correctly but not categorized.	Fair			
Site identified correctly but not systematically categorized.	Good	✓		
Site identified correctly and systematically categorized with proper zonation plans.	Very good			

Management prescriptions for various zones (Core, Buffer, Tourism etc) may be carefully assessed.

2.2 Does the site have a comprehensive Management Plan?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No relevant Management Plan in place.	Poor		Management Plan and discussions	The first management plan was prepared for the year 2006-07 to 2015-16. The plan, being the first, reasonably discusses values and threats, identifies objectives and strategies and attempts reasonable thematic planning. However, evidence is not available for suggesting adoption of a comprehensive participatory planning process, though it does mention WII guidelines having been used.
Management Plan exist but not comprehensive.	Fair			
Site has a comprehensive Management Plan.	Good	✓		
Site has a comprehensive, science based Management Plan prepared through a participatory process.	Very good			

Is the Management Plan consistent with WII Guidelines or not? The extent to which the concerns of the stakeholders, if any have been incorporated in the Management Plan may be commented upon.

2.3 Is the Management Plan routinely and systematically updated?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No process in place for systematic review and update of Management Plan.	Poor		Discussion with PA authorities	The existing plan is the first one and lacks in participatory planning process. Currently, there is a thinking of revisiting the plan because of necessities of habitat management, protection, community participation and education-awareness and ecotourism. The PA authorities are confident of revisiting and updating the plan over the next six months.
Management Plan sometimes updated in adhoc manner.	Fair	✓		
Management Plan routinely and systematically updated.	Good			
Management Plan routinely, systematically and scientifically updated through a participatory process.	Very good			

2.4 Does the site safeguards the threatened biodiversity values?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Sites does not safeguard the threatened biodiversity values.	Poor		Management Plan, CDA documents and discussions with PA authorities	The site being a representative sample of Chilika lagoon, safeguards all significant biodiversity values. It is achieved by giving complete protection to the site and through a range of studies on biodiversity and associated aspects of the entire lagoon.
Sites safeguards a few threatened biodiversity values.	Fair			
Sites safeguards a large number of threatened biodiversity values.	Good	✓		
Sites safeguards all threatened biodiversity values.	Very good			

* Remarks need to elaborate on the kind of safeguards and how they work or are intended to work

2.8 Are stakeholders given an opportunity to participate in planning?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little, if any opportunity for stakeholder participation in planning.	Poor	✓	Discussions with staff, PA manager and some stakeholders	The existing planning process has not been able to obtain comprehensive stakeholder participation. There is a thinking of revisiting the planning process through stakeholder participation. The management plan is available with PA authorities only.
Stakeholders participate in some planning.	Fair			
Stakeholders participate in most planning processes.	Good			
Stakeholders routinely and systematically participate in all planning processes.	Very good			

* The result of participation must show in the field and not merely reported as a routine exercise. Further, is there a system/scope of putting the draft Management Plan in Public Domain in place?

2.6 Are habitat restoration programmes systematically planned and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Habitat restoration programmes are entirely adhoc.	Poor		Management plan, discussion with PA authorities and CDA authorities	The habitat management has, over the last decade, confined to providing better habitat features for perching of birds, cleaning of water ways and restocking of Nal (<i>phragmitis karka</i>) grass. Some of the habitat management programmes have been ad-hoc and needs scientific monitoring of impacts of actions. For example, the name Nalabana denotes presence of the grass Nala (<i>phragmitis karka</i>) in the area. After opening of the sea mouth in the year 2000, based on a study by IIT Chennai, commissioned by CDA, the salinity levels increased in the lagoon. It was informed that after mouth opening Nala(<i>phragmitis</i>) population in the sanctuary declined whereas it increased in the northern sector of lagoon. The initial years of the habitat management were to restore Nala populations by planting, without realizing that perhaps salinityand/ or some other factors might have been negatively associated with Nala growth. For the past couple of years, this exercise has been stopped as the planting efforts failed. The new issue now relates to wide spread growth of grasslands dominated by <i>Cynodon dactylon</i> along the dry and elevated mud flats. The park has begun small, experimental removal of <i>Cynodon</i> from such areas based on recommendations from BNHS, on apprehension of grasslands maycompletely overtake mud flats, significantly reducing habitats for migratory birds. There is also a thinking that limited grazing by buffaloes may help in limiting the spread of <i>Cynodon</i> . In addition, the PA reports a steady increase of a weed <i>Salicornia brachiata</i> , and undertakes about 4-5 ha removal per year. However, there are no clear cut monitoring plans and a vision in terms of habitat security for migratory birds is inadequate.
Limited planning and monitoring programmes are in place for habitat restoration.	Fair	✓		
Habitat restoration programmes are generally well planned and monitored.	Good			
Habitat restoration programmes are thoroughly planned and monitored.	Very good			

* This assessment should be primarily based on habitat management programmes in relation to habitats for species that are threatened (IUCN categories), are habitat specialists, subjected to seasonal movements, wide ranging with emphasis on the breeding and rearing habitat and may include factors such as food, water, shelter (all connotations).Habitat structure, composition, unique patches of vegetation and sensitive sites, sources of water and their distribution are integral. Corridors within buffer zone are critically important. For example, all riparian habitats. Have these been addressed? Is their a planning process in place? What is the extent of 'invasive species in the Site? Are there any measures to reduce/ remove them? Have these been successful?

2.7 Does the site have an effective protection strategy?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Site has no protection strategy.	Poor		Management Plan, discussions with PA authorities	The PA has two watchtowers, where two Foresters, four Forest Guards and three Watchers remain posted continuously. There are also three patrolling boats, which patrol the park boundary along with vulnerable areas of the lagoon frequently. The Range Officer camps in the PA frequently and the DFO (WL) constantly remain in touch with the situations in the PA.
Site has an adhoc protection strategy.	Fair			
Site has a comprehensive protection strategy but is not very effective.	Good	✓		
Site has a comprehensive and very effective protection strategy.	Very good			
				<p>The PA is connected by wireless network and mobile phones. The staff can access arms from the range head quarters, if required.</p> <p>DFO(WL) also has provision of secret funds, which is also used to track information on potential poaching and poachers. The PA manger maintains contacts with informers and also uses NGOs for information sharing. Due to strengthen vigilance, about 36 offences were detected, of which 33 are charged in the courts.</p> <p>The role of CDA as an integrating agency working under Forest Department is of significant value as it involves all relevant departments in the well being of the lagoon, in the process, helping the PA also.</p>

* This assessment takes *inter-alia* into account the nature of threats, the number and location of patrolling camps and foot and mobile patrolling, needs that relate to available manpower, terrain difficulties, practicability of area coverage, readiness to contain specific threats with necessary support and facilities. Is there any coordination with other wings of the Forest Department/ Police/ Customs etc? Are these effective?

2.8 Has the site been effective in the mitigation of human-wildlife conflicts?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Human-wildlife conflicts are rampant.	Poor		Discussion with PA authorities	No issue of conflicts within the PA. Farmers occasionally complain of loss of paddy crops by migratory birds, but it has not been a very serious issue. Furthermore, existing Rules have no provision for compensating loss due to bird foraging.
Site has been able to mitigate few human-wildlife conflicts.	Fair			
Site has been able to mitigate many human-wildlife conflicts.	Good	✓		
Site has been able effective in mitigating all human-wildlife conflicts.	Very good			

* Judgment needs to consider staff training, capabilities, equipment, logistics, local attitude and politics (negatively aided and/or abetted), assistance of relevant agencies (e.g. police. Local administration, Local people themselves) PR, follow-up actions and monitoring. Details of compensation paid for human injury/ death and property damage in the last 3 year may be collected.

2.9 Is the site integrated into a wider ecological network landscape following the principles of the ecosystem approach?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference	Remarks

			document(s)	
Site not integrated into a wider network/ landscape.	Poor		Discussion with PA authorities and CDA authorities	The PA is part of the Chilika lagoon and represents its structural and functional diversity. The Chilika Development Authority (CDA) undertakes various activities for integrating development and conservation of the entire lagoon and considers the PA as a source of biological and ecological values. It assists PA not only on technical front but also financially for conservation activities. The close linkage of PA and CDA makes it an ideal arrangement for integrated planning and implementation. The relationship among various line agencies is functional and PA authorities regularly meet other agencies during District level meetings.
Some limited attempts to integrate the site into a network/ landscape.	Fair			
Site is generally quite well integrated into a network/ landscape.	Good	✓		
Site is fully integrated into a wider network/ landscape.	Very good			

* Assessment needs to consider the scope of opportunities on the landscape scale that exist. Consider whether any attempts have been made and what are these? Have all the important corridors been identified? What actions are planned/implemented for their security? Have the Forest Working Plans and Forest Development Corporation Plans within the identified landscapes taken cognizance of such new requirement? What kind of relationship exists with the District Administration and other Line Departments? Does the Site get any funds from these agencies?

3. Inputs

3.1 Are personnel adequate, well organized and deployed with access to adequate resources in the site?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Few, if any, personnel explicitly allocated for PA management.	Poor		PA reports and discussions with PA staff	The DFO (WL) is the overall in charge of the PA along with areas lying outside the PA, spreading over three Revenue Districts, namely Ganjam, Khurda and Puri. All matters related to wildlife conservation fall in the jurisdiction of the DFO. For the PA, the Range Officer Balugaon is in charge, who manages the PA with the help of 2 Foresters, 4 Forest Guards and 2 departmental Boat men along with daily wage watchers. These staff are exclusively assigned to the protection duties of the PA. All vacancies are filled and staff in position. Extra staff is deployed, when exigency arises. Considering the size of the PA, the permanent staff is adequate. However, the PA would be better managed if an ACF and a RO are given exclusive charge of its management.
Some personnel explicitly allocated for PA management but not systematically linked to management objectives.	Fair			
Some personnel explicitly allocated towards achievement of specific management objectives.	Good	✓		
Adequate personnel explicitly allocated towards achievement of specific management objectives.	Very good			

This assessment should *inter-alia* be based on number of personnel allocated for attainment of PA objectives at the Range , Round, Beat and Patrolling camps levels or as relevant to the needs (sanctioned posts *vis- a- vis* existing personnel and needs beyond the sanctioned strengths. It is possible that posts have last been sanctioned several years back that do not now account for the current needs)

3.2 Are resources (vehicle, equipment, building etc.) adequate, well organized and managed with access to adequate resources?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks

Few, if any, resources explicitly allocated for PA management.	Poor		Discussion with PA authorities and staff	Two watch towers are exclusively allocated for the PA, three boats and some staff exclusively given for PA protection. However, it is advisable to have an ACF and a RO level officer looking after the affairs of the PA exclusively. Since the Chilika lagoon is ecologically inseparable from the lagoon, more staff and patrolling boats with patrolling stations are required to meet the requirement for whole lagoon. The focus of management, which is primarily protection at present, needs also to be strengthened in outreach functions, such as consultation with fishermen and farmers, nature education and awareness. It requires identification and skill development of staff for these functions.
Some resources explicitly allocated for PA management but not systematically linked to management objectives.	Fair			
Some resources explicitly allocated towards achievement of specific management objectives.	Good	✓		
Adequate resources explicitly allocated towards achievement of specific management objectives.	Very good			

* These form a variety of resources. These may be segregated into immovable (structures) and movable categories and each further may be considered under the essential and desirable categories. It is best to start with what are the minimum needs to attain each objective, what is available and manner of use/deployment. The proportions of the 'essentials' and 'desirables' along the importance gradient of objectives would serve as pointers for score categories. Specific remarks would be vitally important.

3.3 Are resources (human and financial) linked to priority actions and are funds released timely?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Resource allocation is adhoc, funds are inadequate and seldom released in time and not utilized.	Poor		APO, fund release orders, Utilization Certificates	The PA receives funds from both the Central and State governments. The Central release has increased from Rs. 27 lakh in 2007-08 to 30.48 lakh in 2009-10. However, the State plan released has reduced from 45.65 lakh to 31.06 lakh during the same period. The PA also received Rs. 7.29 lakh during 2009-10 from CDA and this has been the case in the preceding two years. The PA has incurred Rs. 5.50 lakh on habitat development, Rs 4.50 lakh on restoration activities and Rs. 15.00 lakh on protection during 2009-10, an increase over 2007-08, when it spent Rs. 2.50, 3.00 and 10.00 lakh respectively on the same items. During the current year, the expenditure is more than 80% of the release. Overall, the position of fund release and expenditure is satisfactory.
Some specific allocation for management of priority action. Funds are inadequate and there is some delay in release, partially utilized.	Fair			
Comprehensive planning and allocation that meets the most important objectives. Generally funds released with not much delay and mostly utilized.	Good	✓		
Comprehensive planning and allocation of resources for attainment of most objectives. Funds generally released on-time and are fully utilized.	Very good			

				Forests and PCCF.
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*Obtain details of funds released by MoEF and their utilization by site in the last 3 years and indicate them under 'Remarks'. Also comment on the problems associated with funds and their mitigation.

3.4 What level of resources is provided by NGOs?

Assessment criteria*				
Condition*	Category*	(Tick ✓)	Reference document(s)	Remarks
NGOs contribute nothing for the management of the site.	Poor		Discussions with PA authorities	BNHS has been associated for carrying out long term study on habitat evaluation and with bird as bio-indicator.
NGOs make some contribution to management of the site but opportunities for collaboration are not systematically explored.	Fair	✓		
NGOs contributions are systematically sought and negotiated for the management of some site level activities.	Good			
NGOs contributions are systematically sought and negotiated for the management of many site level activities.	Very good			

Details of contributions (cash/kind) made by the NGOs in the last 3 years may be collected.

3.5 Does PA manager consider resources (human and financial) to be sufficient?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Resources insufficient for most tasks.	Poor		Discussions with PA authorities	Yes. A little restructuring in terms of posting an ACF and a RO exclusively for the PA is required.
Resources sufficient for some tasks.	Fair			
Resources sufficient for most tasks.	Good	✓		
Resources are in excess for most tasks.	Very good			

4. Process

4.1 Does the site have trained manpower resources for effective PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Very few trained officers and frontline staff in the site.	Poor		Discussions with PA authorities	The incumbent DFO is trained in wildlife management from WII during 1994-95. Other staff are not formally trained in wildlife management. However, some of the new staff recruited during 2006 and currently serving have been given training in bird watching by BNHS and are familiar with most of the birds of the wetlands. The ACF is serving in this area for over a decade and has attained expertise in wetland bird watching. The staff is regularly taken out on study tours to other PAs of the state. For tours outside the State, government permission is required. The CDA conducts dolphin census in the lagoon and with the help of BNHS, annual winter counts of birds are made in the PA. The staff actively participates and gets training for these events. A formal wildlife training programme for frontline staff and Certificate course in the WII for the RO will be of immense use.
Few trained officers and frontline staff, who are posted in the site.	Fair			
A large number of trained officers and frontline staff are posted in the site.	Good	✓		
All trained managers and frontline staff posted in the site.	Very good			

* Indicate % of trained staff in various categories. i.e. Higher Management: ACF/ DCF/ CF/ CCF; Frontline Staff: Range Officer; Beat Officer; Forest Guard; Casual Daily Labour (CDL); Others.

4.2 Is PA staff performance management linked to achievement of management objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No linkage between staff performance management and management objectives.	Poor		Discussions with PA authorities	Staff promotions are based on seniority and suitability. Good performance is rewarded by the State government. One Forester, Mr. Ganga Dhar Sahu was given State Forestry Award in 2006-07 for good protection of wildlife.
Some linkage between staff performance management and management objectives, but not consistently or systematically assessed.	Fair	✓		
Performance management for most staff is directly linked to achievement of relevant management objectives.	Good			
Performance management of all staff is directly linked to achievement of relevant management objectives.	Very good			

*Has the PA staff received award/ appreciation from any agency in the last 3 years?

4.3 Is there effective public participation in PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no public participation in PA management.	Poor	✓	Discussion with PA and CDA authorities	The Dolphin census and winter bird count involve local volunteers and NGOs. Other than that there is hardly any participation.
Opportunistic public participation in some aspects of PA management.	Fair			
Systematic public participation in most aspects of PA management.	Good			
Comprehensive and systematic public participation in all important aspects of PA management.	Very good			

* Participation would include Conservation & awareness programmes, Census operations, Intelligence gathering, Forest fire control etc.

4.4 Is there a responsive system for handling complaints and comments about PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic approach to handling complaints.	Poor		Discussion with PA authorities	Quarterly Progress Reports are sent to higher officials on complaints and grievances. However, no systematic management of this issue. Statewide, every third Saturday is identified as a grievance redressal day. But it is a routine reporting activity. There have not been serious complaints over the last five years. Only in one case, where the staff seized nets of fishermen, upon direction of court, the nets were returned and staff reprimanded. No RTI queries over the last 3 years.
Complaints handling system operational but not responsive to individual issues and limited follow up provided.	Fair	✓		
Coordinated system logs and responds effectively to most complaints.	Good			
All complaints systematically logged in coordinated system and timely response provided with minimal repeat complaints.	Very good			

* Number of queries made and response thereof under the Right to Information (RTI), Act in the last 3 years may be compiled.

4.5 Does PA management address the livelihood issues of resource dependent communities especially of women?

<i>Assessment criteria</i>				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No livelihood issues are addressed by PA management.	Poor		Discussions with PA authorities and CDA authorities	The PA is the only protected unit in the entire lagoon, and the PA staff rigidly protects it from all form of interventions from outside. There are no villages inside the PA and thus there is no conflict within. However, taking the lagoon as a whole, the conflict is high. Illegal fishing and movement of people harm Dolphin protection and poor fishermen occasionally try to encroach in the PA waters for better harvest. The PA authorities need to looked into these issues in a much more interactive manner. However, CDA comes up as a source of relief. The effort of CDA has resulted in substantially increase in fish production due to improvement of lagoon ecology. This in conjunction with other programmes has helped the villagers around PA in their livelihood improvement thereby buffering the PA from many unwanted activities. Due to CDA and PA collaborative action, a group consisting of fishermen and known as Mahavira Pakhya Suraksha Samiti has come up in the area and helps in birds and Dolphin protection. The group was awarded Biju Patanaik State Wildlife Award in 2006 for their work in conservation of Chilika lake.
Few livelihood issues are addressed by PA management.	Fair			
Substantial livelihood issues are addressed by PA management.	Good	✓		
Livelihood issues of resource dependent communities especially women are addressed effectively by PA managers.	Very good			

5. Output

5.1 Is adequate information on PA management publicly available?

<i>Assessment criteria*</i>				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no information on PA management publicly available.	Poor		Discussions with PA and CDA authorities	Essential information on the PA and its management is available at the level of DFO. The research reports on Chilika lagoon and its inhabitants, ecology etc are available in higher offices and with CDA. At the field level a comprehensive Bird Atlas of Chilika and Fish Atlas of Chilika is available. However, all such documents are not easily accessible to the public. No website exists for the PA, however, CDA website is on public domain and contains information on the PA also.
Publicly available information is general and has limited relevance to management accountability and the condition of public assets.	Fair			
Publicly available information provides detailed insight into major management issues for most PAs or groups of PAs.	Good	✓		
Comprehensive reports are routinely provided on management and condition of public assets in all PAs or groups of PAs.	Very good			

* Does the Site has a website? If yes, is it comprehensive, well-managed and periodically updated?

5.2 Are visitor services (tourism and interpretation) and facilities appropriate for the relevant protected area category?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Visitor services and facilities are at odds with relevant PA category and/or threaten PA values.	Poor		Discussions with PA and CDA authorities	The PA is completely focused on protection and does not allow any visitation and as such no tourist facilities inside it. However, promotion of Eco-Tourism and awareness campaigns are carried out in the the Chilika lagoon outside the sanctuary area. One such example is Mangaljodi, where the PA Managers have involved local villagers and NGOs for protection of birds. The local villagers provide country boats, local recipe food and guide services to the visitors to watch birds in this area. There is a Eco- tourism complex in Brahmapura managed by Forest deptt. There are a number of private and government tourist accommodations located in the fringes of Chilika. The interpretation center of the PA is defunct. However, CDA has an excellent Centre at Satpara, highlighting Chilika Eco system. Although the outreach programmes on conservation values of lake eco system, carried out by CDA partially meets the objectives, special programmes emphasizing PA conservation values is desirable from PA authorities. Good quality of brochures have been brought out by CDA and PA Managers giving informations on the lake and PA.
Visitor services and facilities generally accord with relevant PA category and don't threaten PA values.	Fair	✓		
All visitor services and facilities accord with relevant PA category and most enhance PA values.	Good			
All visitor services and facilities accord with relevant PA category and enhance PA values.	Very good			

* Include the existence and quality of visitor and interpretation centers, including skills and capabilities of personnel manning these, site related publications, films, videos; arrangements of stay (including places serving refreshments and food owned and managed by site), watch towers and hides including safety factors, vehicles assigned for visitors including riding elephants, if any and their deployment, drinking water, rest rooms, garbage disposal, attended and self guided services in the field, visitor feed back on the quality of wilderness experience. Details of numbers of visitors/ tourists(both domestic and overseas) coming in the last 3 years and the revenue earned may be compiled.

5.3 Are research/ monitoring related trends systematically evaluated and routinely reported and used to improve management?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no systematic evaluation or routine reporting of trends.	Poor		Discussions with PA and CDA authorities, Annual report of PA and CDA and research reports by CDA	The PA by itself does not do any research and monitoring. However, CDA does a regular monitoring of Chilika lake through a dedicated team of researchers using high technology. The annual Dolphin and winter migratory bird count help in generating database for the PA also. In the CDA monitoring work, data on the PA is also obtained, which the PA intends to acquire for its use. New research programmes by CDA on habitat evaluation and monitoring of avian fauna, study of fish ecology and diversity and assessment of macrophytes in Chilika lake have been assigned to various institutions and are likely to be completed by 2015. It is expected that information related to the PA would be extracted out of these studies and used in improving the management of the PA.
Some evaluation and reporting undertaken but neither systematic nor routine.	Fair	✓		
Systematic evaluation and routine reporting of management related trends undertaken.	Good			
Systematic evaluation and comprehensive reporting of trends undertaken and attempts made at course corrections as relevant.	Very good			

* Not all site attract projects and researchers and with exceptions, little research takes place on the site own steam because of systemic limitations. However, monitoring of some critical issues is expected e.g. population of tiger, co-predators and prey with insights into their demography and distribution (some opportunistic sampling by sightings, signs and spatial distribution during assessment would be extremely useful in terms of expert impression and as a pulse), monitoring incidence of livestock grazing, fires, weeds, sources of water, a variety of illegal activities typically associated with the reserve, wildlife health (e.g. epidemics, immunization of livestock) regeneration and change in vegetation, visitors and their

activities, offence cases, ex-gratia payments etc. Details of number of research projects in the last 3 years, institutions involved, salient outcomes may be collected and used in awarding scores.

5.4 Is there a systematic maintenance schedule and funds in place for management of infrastructure/assets?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic inventory or maintenance schedule.	Poor		Management Plan, APO, discussions with PA authorities	Well laid out procedures exist for placing demands in the APO, which is prepared and submitted annually. The management plan has provisions made for maintenance. The total funds released in 2007-08, 08-09 and 09-10 are 91.25, 84.50, and 76.91 lakhs respectively. However, there is some gap between requirement and actual receipt of funds for maintenance of infrastructure and assets.
Inventory maintenance is adhoc and so is the maintenance schedule.	Fair			
Systematic inventory provides the basis for maintenance schedule but funds are inadequately made available.	Good	✓		
Systematic inventory provides the basis for maintenance schedule and adequate funds are made available.	Very good			

6. Outcomes

6.1 Are populations of threatened species especially key faunal species declining, stable or increasing?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threatened/ endangered species populations declining.	Poor		Winter bird count records, Dolphin estimation in the lagoon	The annual winter bird counts are more or less stable, varying from 4 to 5 lakh annual migratory birds arriving in the PA. There are fluctuations in the numbers of the species. However, they are not considered significant. Except for waders, whose populations are reported to be on decline due to reported increase of <i>Salicornia</i> and <i>Cynodon</i> in the wetland, the other species have not reported major fluctuation. The PA has taken note of the advice of BNHS and experimentally removes these plants in small plots. In respect of Irrawadi Dolphin, the population in the lagoon is almost stable at around 150 individuals over the last 3 years.
Some threatened/ endangered species populations increasing, most others stable.	Fair			
Most threatened/ endangered species populations increasing, most others stable.	Good	✓		
All threatened/ endangered species populations either increasing or stable.	Very good			

* This needs to practically relate to the natural ecosystem potential rather than being driven merely by numbers and visibility. The assessment score may be elaborated under remarks. Comments on the population trends may be made under Remarks.

6.2 Have the threats to the site being reduced/ minimized or is there an increase?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats to the Site have not abated but have enhanced.	Poor		Discussions with the PA and CDA authorities	Remains the same.
Some threats to the Site have abated, others continue their presence	Fair	✓		
Most threats to the Site have abated. The few remaining are vigorously being addressed	Good			
All threats to the Site have been effectively contained and an efficient system is in place to deal with any emerging situation	Very good			

6.3 Are the expectations of visitors generally met or exceeded?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Expectations of visitors generally not met.	Poor		Discussions with the PA and CDA authorities	No visitation permitted as it is a closed area. However the site is part of Chilika lagoon, which is visited by a large no. of visitors. The lagoon for the purpose of bird watching, dolphin siting and eco-tourism is similar to the PA and is visited by a large no. of visitors, who mostly feel satisfied.
Expectations of many visitors are met.	Fair			
Expectations of most visitors are met.	Good	✓		
Good expectations of most visitors are met.	Very good			

* Is there any system of receiving/ analyzing visitor feedback?

6.4 Are local communities supportive of PA management?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Local communities are hostile.	Poor		Discussions with the PA and CDA authorities	Local communities appreciate the value of the PA as a source of living resources in the Chilika lagoon. There is also support for conservation to some extent. However, livelihood necessities of the locals put conservation of the PA and the lagoon gets second priority. Although communities are not associated for management of PA, which is a legally defined closed area, initiatives have been made in some villages for directly associating them in protection of birds and generation of income from eco-tourism activities. The presence of CDA and its excellent work on conservation and development of the entire lagoon along with socio-economic activities for livelihood improvement helps in PA protection and conservation.
Some are supportive.	Fair	✓		
Most locals are supportive of PA management.	Good			
All local communities supportive of PA management.	Very good			

* There could be many reasons for disenchantment. It could be real because of managerial neglect or the managerial efforts could be appropriate but there could be local elements/organizations who would like to keep the dis-affectation simmering for their own ulterior motives. Likewise success could be entirely because of the efforts of managers or they might be fortunate in striking partnerships with credible NGOs. Assessment may take the prevailing causes into account.

MEE Score Card

Framework Element Number	Framework Element Name	Number of Questions (a)	Maximum Mark per question (b)	Total (a x b)	Marks obtained for the Element	Overall Score
1.	Context	03	10	30	27.5	65.83%
2.	Planning	09	10	90	57.5	
3.	Inputs	05	10	50	35	
4.	Process	05	10	50	27.5	
5.	Outputs	04	10	40	25	
6.	Outcomes	04	10	40	25	
Total		30		300	197.5	

6. HADGARH WILDLIFE SANCTUARY, ODISHA

MEE Year (2012-13)

A. Management Strengths

1. The biodiversity is rich, and the sanctuary has habitats for tigers and elephants. The forest types include Northern Tropical Deciduous Forest and Dry Deciduous Forest and are characterized by tree species such as sal, asan, dhaura, harida and baheda. Thirty species of mammal, 38 species of bird and 15 species of reptile and amphibian have been identified in the sanctuary.
2. Hadgarh Wildlife Sanctuary (WLS) has linkages with Similipal Forest/Tiger Reserve (Mayurbanj District) and Kuldiha WLS (Balasore District). The movement of animals, specifically from Similipal to Kuldiha, is through Hadgarh. The sanctuary constitutes a part of the Similipal–Hadgarh–Kuldiha elephant corridor.
3. The Hadagarh reservoir, which collects the water of the Salandi River, inside the sanctuary, and its tributaries, provides perennial sources of water to the wildlife.
4. The sanctuary is a very good habitat for wildlife.
5. The sanctuary is a part of the Mayurbhanj Elephant and Biosphere Reserve.

B. Management Weakness

1. The numbers of the field staff and wildlife-trained staff are inadequate.
2. The infrastructure is inadequate in terms of patrolling vehicles, motorcycles, staff amenities, communication equipment and protection camps. The tourist facilities are meagre (there are only three suites and there is a lack of funds for eco-development. The community support is poor.
3. There is no unified command at the managerial level for the entire sanctuary. The sanctuary is managed by two different divisions. Although a sanctuary management plan has been prepared for the areas in the Keonjhar portion, there is no such plan for the Karanjia (Mayurbhanj) part.
4. The sanctuary has an inadequate patrolling road network. This significantly impedes strict supervision, protection and monitoring work in sizeable chunks of areas in the interior.
5. There are 13 settlements, with 4354 inhabitants, in the Keonjhar part and 16 settlements in the Karanjia part of the sanctuary. Under the FRA, forest rights have been recognized in 472.606 ha in Keonjhar and 101.71 ha in Karanjia. There are mining leases just at the periphery that have been stopped due to an order of the Hon'ble Supreme Court.

C. Actionable Points

1. The two parts of the sanctuary, administered by two separate divisions, situated in different districts, should be brought under a single PA Manager immediately, with a scientific wildlife management plan covering the whole sanctuary.
2. The sanctuary suffers from inadequate staffing and infrastructure. These deficiencies should be addressed by the state government in a scheduled manner.
3. The sanctuary suffers from biotic interference due to 13 settlements inside it. Further, it is affected by encroachment by villagers displaced by the Hadgarh dam from two hamlets. A plan should be drawn and implemented to free the sanctuary from this interference in a phased manner.
4. There are a number of chromite mines in the periphery of the sanctuary, the operation of which has been suspended due to an order of the Hon'ble Supreme Court. Hence, in

compliance with the Hon'ble Supreme Court's order, an eco-sensitive zone around the sanctuary should be declared without any delay.

5. There is an immediate need to draw up and implement a sound protection plan for prevention of grazing and elimination of any possibility of hunting. Building up a network of informers with provisions for appropriate remuneration should be part of this plan.
6. There are some instances of damage caused to crops and property by elephants and wild boar. Although power fencing has been erected at places, the fences need continuous maintenance. The involvement of villagers is a sine qua non for them to be effective. Eco-development works are essential for getting community support, which is otherwise lacking. Sufficient funds should be provided for these works.
7. Short-term training courses/programmes in wildlife management (planning, protection and monitoring) should be conducted at the division level for building capacity among all the field staff as a top priority. State-of-the-art modern spatial technology tools inter alia should be used.
8. The communication equipment and arms deposited earlier due to Maoist threats need to be reconsidered on the present ground reality at the appropriate level.
9. Providing suitable insurance cover with adequate incentives and a reward system is essential for enhancing the efficiency of the staff.
10. There is no effective programme for awareness generation, interpretation and education on wildlife/conservation. Such programmes should be carried out to make people aware of the importance and value of conservation.
11. The proportions of the areas of the Mayurbhanj part and the Keonjhar part of the sanctuary, not in agreement with their stated areas, this need to be verified/ rectified.

77°15'0"E

Hadgarh Wildlife Sanctuary Orissa



28°30'0"N

28°30'0"N



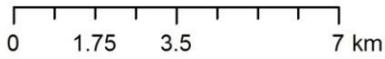
28°25'0"N

28°25'0"N



भारतीय वन्यजीव संस्थान
Wildlife Institute of India

IT and RS & GIS Cell - 2014



Notified Area: 191.06 Sq. km
Notification Year: 1978

77°15'0"E

1. Context

1.1 Are the values of the site well documented, assessed and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Values not systematically documented, assessed or monitored.	Poor		APPROVED Management Plan of Hadgargh WLS(kenojhar Part) By BK Parida 2011-12 to 2020-2021.	Sanctuary was notified on 6/12/78 and falls in two district of Keonjhar and Mayurbhanj with area of 103.22 and 75.08 sq km respectively. It is noteworthy that the amount of area of two districts stated above is not consistent with their area shown in the map. Therefore it needs a correction by the competent authority. For the Keonjhar portion, under Keonjhar WL Dvn, a management plan has been approved, the Mayurbhanj part, under control of DFO, Karanjia is managed without a proper management plan. The Sanctuary is part of Mayurbhanj Elephant Reserve The Salandi reservoir is inside sanctuary.
Values generally identified but not systematically assessed and monitored.	Fair			
Most values systematically identified and assessed and monitored.	Good	✓		
All values systematically identified and assessed and monitored.	Very good			

*Values would also include geo-morphological, historico-cultural and faunal and floral species.

1.2 Are the threats to site values well documented and assessed?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats not systematically documented or assessed.	Poor		Management Plan of Hadgargh WLS(kenojhar Part) By BK Parida 2011-12 to 2020-2021.	For the Part in Keonjhar, the threats are documented. For the Mayurbhanj part no such documentation is available. The two human settlements (Dalki and Pitanau) have encroached the sanctuary along with some other settlements. These are the people of submerged villages of Salandi reservoir. The pressure of grazing, NTFP collection, firewood etc is very high. The impact on Elephants is high in the form of conflict
Threats generally identified but not systematically assessed.	Fair			
Most threats systematically identified and assessed.	Good	✓		
All threats systematically identified and assessed.	Very good			

* This assessment should be based on number, nature and extent of threats. Threats within and outside PA should both be considered. Impacts, if any on the population abundance of key species may be indicated in the remarks.

1.3 Is the site free from human and biotic interference?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
The site has extensive human and biotic interference.	Poor	✓	Management Plan and field observation	There are existence of 13 settlements with 4354 inhabitants in Keonjhar part and.t6 settlements in Karanjia part. Under FRA Forest rights have been recognised in 472.606 ha in keonjhar and 101.71ha. in Karanjia. There are mining leases in the periphery which have been stopped due to Hon'ble Supreme Court order.
The site has some human and biotic interference.	Fair			
The site has little human and biotic interference.	Good			
The site has no human and biotic interference.	Very good			

*This assessment should be based on existence of human settlements/ villages; livestock grazing, cultivation, encroachments etc, resource extraction/ livelihood dependence of local communities and should reflect the overall interference due to all the above factors. Number and size of human settlements/ enclaved villages and their impacts on the site may be indicated in the Remarks.

2. Planning

2.1 Is the site properly identified (NP/WLS) and categorized (in terms of zonation) to achieve the objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not identified correctly or categorized.	Poor		Management plan	Zonation exists only in Keonjhar portion.
Site identified correctly but not categorized.	Fair			
Site identified correctly but not systematically categorized.	Good	✓		
Site identified correctly and systematically categorized with proper zonation plans.	Very good			

Management prescriptions for various zones (Core, Buffer, Tourism etc) may be carefully assessed.

2.2 Does the site have a comprehensive Management Plan?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No relevant Management Plan in place.	Poor		Management Plan of Hadgargh WLS(kenojhar Part) By BK Parida 2011-12 to 2020-2021.	For the important segment in Mayurbhanj district (Karanjia Forest Division), WL Sanctuary Management plan has not been prepared.
Management Plan exist but not comprehensive.	Fair			
Site has a comprehensive Management Plan.	Good	✓		
Site has a comprehensive, science based Management Plan prepared through a participatory process.	Very good			

Is the Management Plan consistent with WII Guidelines or not? The extent to which the concerns of the stakeholders, if any have been incorporated in the Management Plan may be commented upon.

2.3 Is the Management Plan routinely and systematically updated?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No process in place for systematic review and update of Management Plan.	Poor			The earlier management plan was prepared in 1998 and was revised in 2011.(only for Keonjhar part)
Management Plan sometimes updated in adhoc manner.	Fair	✓		
Management Plan routinely and systematically updated.	Good			
Management Plan routinely, systematically and scientifically updated through a participatory process.	Very good			

2.4 Does the site safeguards the threatened biodiversity values?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Sites does not safeguard the threatened biodiversity values.	Poor			The elephant corridor connecting the theSimlipal and Kuldiha through Hadgarh has very significant biodiversity value.30 sps of mammals,37 sps of birds,and 15 sps of reptiles are also reported,.
Sites safeguards a few threatened biodiversity values.	Fair			
Sites safeguards a large number of threatened biodiversity values.	Good	✓		
Sites safeguards all threatened biodiversity values.	Very good			

* Remarks need to elaborate on the kind of safeguards and how they work or are intended to work

2.9 Are stakeholders given an opportunity to participate in planning?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little, if any opportunity for stakeholder participation in planning.	Poor	✓	Management Plan and field visit	As per the mgmt. plan, no provision for stakeholders' consultation has been made.
Stakeholders participate in some planning.	Fair			
Stakeholders participate in most planning processes.	Good			
Stakeholders routinely and systematically participate in all planning processes.	Very good			

* The result of participation must show in the field and not merely reported as a routine exercise. Further, is there a system/scope of putting the draft Management Plan in Public Domain in place?

2.6 Are habitat restoration programmes systematically planned and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Habitat restoration programmes are entirely adhoc.	Poor		Utilization Certificate	Meadow /fodder development in 20 ha and water harvesting structures,(two). Weed eradication in 50 ha was done for the past three yrs. The plan reflects the programmes but progress is slow.
Limited planning and monitoring programmes are in place for habitat restoration.	Fair	✓		
Habitat restoration programmes are generally well planned and monitored.	Good			
Habitat restoration programmes are thoroughly planned and monitored.	Very good			

* This assessment should be primarily based on habitat management programmes in relation to habitats for species that are threatened (IUCN categories), are habitat specialists, subjected to seasonal movements, wide ranging with emphasis on the breeding and rearing habitat and may include factors such as food, water, shelter (all connotations).Habitat structure, composition, unique patches of vegetation and sensitive sites, sources of water and their distribution are integral. Corridors within buffer zone are critically important. For example, all riparian habitats. Have these been addressed? Is their a planning process in place? What is the extent of 'invasive species in the Site? Are there any measures to reduce/ remove them? Have these been successful?

2.7 Does the site has an effective protection strategy?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Site has no protection strategy.	Poor		Mgmt plan and by site visits.	Patrolling and antipoaching camps are at Pitanau, Bahia. Hadgarh and Baniapanka Elephants. Anti poaching squads have five local youths on daily wage basis. The number of staff is less.
Site has an adhoc protection strategy.	Fair	✓		
Site has a comprehensive protection strategy but is not very effective.	Good			
Site has a comprehensive and very effective protection strategy.	Very good			

* This assessment takes *inter-alia* into account the nature of threats, the number and location of patrolling camps and foot and mobile patrolling, needs that relate to available manpower, terrain difficulties, practicability of area coverage, readiness to contain specific threats with necessary support and facilities. Is there any coordination with other wings of the Forest Department/ Police/ Customs etc? Are these effective?

2.8 Has the site been effective in the mitigation of human-wildlife conflicts?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Human-wildlife conflicts are rampant.	Poor	✓		Solar Fencing, informer system, patrolling towers and cash rewards has been done. Solar fencing was erected for mitigating elephant-man conflict in 6kms stretches of Hadgarh and madhuban and Tont-Gohorodahi. The staff is untrained and ill-equipped.
Site has been able to mitigate few human-wildlife conflicts.	Fair			
Site has been able to mitigate many human-wildlife conflicts.	Good			
Site has been able effective in mitigating all human-wildlife conflicts.	Very good			

* Judgment needs to consider staff training, capabilities, equipment, logistics, local attitude and politics (negatively aided and/or abetted), assistance of relevant agencies (e.g. police. Local administration, Local people themselves) PR, follow-up actions and monitoring. Details of compensation paid for human injury/ death and property damage in the last 3 year may be collected.

2.9 Is the site integrated into a wider ecological network landscape following the principles of the ecosystem approach?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not integrated into a wider network/ landscape.	Poor			Flanked by Simplipal NP and Kuldaha Wildlife sanctuary, it is part of an important Elephant corridor. The inter departmental relationship is good. The funding support is meager.
Some limited attempts to integrate the site into a network/ landscape.	Fair			
Site is generally quite well integrated into a network/ landscape.	Good	✓		
Site is fully integrated into a wider network/ landscape.	Very good			

* Assessment needs to consider the scope of opportunities on the landscape scale that exist. Consider whether any attempts have been made and what are these? Have all the important corridors been identified? What actions are planned/implemented for their security? Have the Forest Working Plans and Forest Development Corporation Plans within the identified landscapes taken cognizance of such new requirement? What kind of relationship exists with the District Administration and other Line Departments? Does the Site get any funds from these agencies?

3. Inputs

3.1 Are personnel adequate, well organised and deployed with access to adequate resources in the site?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Few, if any, personnel explicitly allocated for PA management.	Poor			In Keonjhar portion there are 13 no. of staff including 1 DFO, 1 ACF and 1 RO, who also look after other forestry and Wildlife works in addition to sanctuary management. The Mayuirbhanj part has only 6 territorial forest staff protecting it. The current staff need is much more
Some personnel explicitly allocated for PA management but not systematically linked to management objectives.	Fair			
Some personnel explicitly allocated towards achievement of specific management objectives.	Good	✓		
Adequate personnel explicitly allocated towards achievement of specific management objectives.	Very good			

* This assessment should *inter-alia* be based on number of personnel allocated for attainment of PA objectives at the Range, Round, Beat and Patrolling camps levels or as relevant to the needs (sanctioned posts *vis- a- vis* existing personnel and needs beyond the sanctioned strengths. It is possible that posts have last been sanctioned several years back that do not now account for the current needs)

3.2 Are resources (vehicle, equipment, building etc.) adequate, well organised and managed with access to adequate resources?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Few, if any, resources explicitly allocated for PA management.	Poor		DFO report and UC.	Bolero Vehicle -1 Motor cycle =2 Boat -3 GPS-5 Camera-2 Binocular-1 Buildings-25 The vehicles, communication equipments, and boats are needed urgently
Some resources explicitly allocated for PA management but not systematically linked to management objectives.	Fair		As per site visit.	
Some resources explicitly allocated towards achievement of specific management objectives.	Good	✓		
Adequate resources explicitly allocated towards achievement of specific management objectives.	Very good			

* These form a variety of resources. These may be segregated into immovable (structures) and movable categories and each further may be considered under the essential and desirable categories. It is best to start with what are the minimum needs to attain each objective, what is available and manner of use/deployment. The proportions of the 'essentials' and 'desirables' along the importance gradient of objectives would serve as pointers for score categories. Specific remarks would be vitally important.

3.3 Are resources (human and financial) linked to priority actions and are funds released timely?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Resource allocation is adhoc, funds are inadequate and seldom released in time and not utilized.	Poor		UC	Funds were released and spent for the last three yrs except for the year 2011-12 in which 7.6 lacs were released on 28 march2012.. The actual receipt of funds in last 3 years for Keonjhar portion : 2009-10: 23.05 lakhs 2010-11: 28.86 lakhs 2011-12: 40.51 lakhs
Some specific allocation for management of priority action. Funds are inadequate and there is some delay in release, partially utilized.	Fair			
Comprehensive planning and allocation that meets the most important objectives. Generally funds released with not much delay and mostly utilized.	Good	✓		
Comprehensive planning and allocation of resources for attainment of most objectives. Funds generally released on-time and are fully utilized.	Very good			

*Obtain details of funds released by MoEF and their utilization by site in the last 3 years and indicate them under 'Remarks'. Also comment on the problems associated with funds and their mitigation.

3.4 What level of resources is provided by NGOs?

Assessment criteria*				
Condition*	Category*	(Tick ✓)	Reference document(s)	Remarks
NGOs contribute nothing for the management of the site.	Poor	✓	DFO report and site visit	Nil.
NGOs make some contribution to management of the site but opportunities for collaboration are not systematically explored.	Fair			
NGOs contributions are systematically sought and negotiated for the management of some site level activities.	Good			
NGOs contributions are systematically sought and negotiated for the management of many site level activities.	Very good			

Details of contributions(cash/kind) made by the NGOs in the last 3 years may be collected.

3.5 Does PA manager considers resources (human and financial) to be sufficient?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Resources insufficient for most tasks.	Poor		As per discussion with DFO	Three more motor cycles, one camper and three more boats were requested. The provision of communication like mobile sets is needed. It was told that wireless sets and arms had been deposited in police armory/ HQS. due to some old threat of Maoist activities.
Resources sufficient for some tasks.	Fair	✓		
Resources sufficient for most tasks.	Good			
Resources are in excess for most tasks.	Very good			

4. Process

4.1 Does the site have trained manpower resources for effective PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Very few trained officers and frontline staff in the site.	Poor			DFO was trained in WL mgmt. from WII..The remaining staffs have basic forest/wildlife trg and have on job experience. For Karanjia staff basic Forest mgmt skills exist.
Few trained officers and frontline staff, who are posted in the site.	Fair	✓		
A large number of trained officers and frontline staff are posted in the site.	Good			
All trained managers and frontline staff posted in the site.	Very good			

* Indicate % of trained staff in various categories. i.e. Higher Management: ACF/ DCF/ CF/ CCF; Frontline Staff: Range Officer; Beat Officer; Forest Guard; Casual Daily Labour (CDL); Others.

4.2 Is PA staff performance management linked to achievement of management objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No linkage between staff performance management and management objectives.	Poor			Performane evaluation at annual interval is being carried out for all the staff as per service rule. Informal incentive by DFO is being given.
Some linkage between staff performance management and management objectives, but not consistently or systematically assessed.	Fair	✓		
Performance management for most staff is directly linked to achievement of relevant management objectives.	Good			
Performance management of all staff is directly linked to achievement of relevant management objectives.	Very good			

*Has the PA staff received award/ appreciation from any agency in the last 3 years?

4.3 Is there effective public participation in PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no public participation in PA management.	Poor			The VSS, Sajanapal, Khatkhatare participating in fire control.
Opportunistic public participation in some aspects of PA management.	Fair	✓		
Systematic public participation in most aspects of PA management.	Good			
Comprehensive and systematic public participation in all important aspects of PA management.	Very good			

* Participation would include Conservation & awareness programmes, Census operations, Intelligence gathering, Forest fire control etc.

4.4 Is there a responsive system for handling complaints and comments about PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic approach to handling complaints.	Poor			Suggestion Book is available at Hadgarh. Complaints are received at Keonjhar WL dn and acted upon.. A complaint box exists in Satkosia Range.
Complaints handling system operational but not responsive to individual issues and limited follow up provided.	Fair	✓		
Coordinated system logs and responds effectively to most complaints.	Good			
All complaints systematically logged in coordinated system and timely response provided with minimal repeat complaints.	Very good			

* Number of queries made and response thereof under the Right to Information (RTI), Act in the last 3 years may be compiled.

4.5 Does PA management addresses the livelihood issues of resource dependent communities especially of women?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No livelihood issues are addressed by PA management.	Poor			18 SHG groups are being supported by DFO. Maintenance of electric fencing is done by SHG
Few livelihood issues are addressed by PA management.	Fair			
Substantial livelihood issues are addressed by PA management.	Good	✓		
Livelihood issues of resource dependent communities especially women are addressed effectively by PA managers.	Very good			

5. Output

5.1 Is adequate information on PA management publicly available?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no information on PA management publicly available.	Poor			Very little information except for brochure and book on Animal biodiversity exists. There is no website for the PA other than State Wildlife department's Website-www.odishawildlife.org
Publicly available information is general and has limited relevance to management accountability and the condition of public assets.	Fair	✓		
Publicly available information provides detailed insight into major management issues for most PAs or groups of PAs.	Good			
Comprehensive reports are routinely provided on management and condition of public assets in all PAs or groups of PAs.	Very good			

* Does the Site has a website? If yes, is it comprehensive, well-managed and periodically updated?

5.2 Are visitor services (tourism and interpretation) and facilities appropriate for the relevant protected area category?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Visitor services and facilities are at odds with relevant PA category and/or threaten PA values.	Poor			Gadchandi Ecotourism Hall is being provided to visitors An interpretation centre has been proposed. The number of visitors are very small.
Visitor services and facilities generally accord with relevant PA category and don't threaten PA values.	Fair	✓		
All visitor services and facilities accord with relevant PA category and most enhance PA values.	Good			
All visitor services and facilities accord with relevant PA category and enhance PA values.	Very good			

* Include the existence and quality of visitor and interpretation centers, including skills and capabilities of personnel manning these, site related publications, films, videos; arrangements of stay (including places serving refreshments and food owned and managed by site), watch towers and hides including safety factors, vehicles assigned for visitors including riding elephants, if any and their deployment, drinking water, rest rooms, garbage disposal, attended and self guided services in the field, visitor feed back on the quality of wilderness experience. Details of numbers of visitors/ tourists(both domestic and overseas) coming in the last 3 years and the revenue earned may be compiled.

5.3 Are research/ monitoring related trends systematically evaluated and routinely reported and used to improve management?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no systematic evaluation or routine reporting of trends.	Poor			Elephant and Tiger census is being carried out. Elephant number is on increasing trend. One book on vertebrate fauna of Hadgarh WLS by HK Sahoo and others has been published in 2012. There is no involvement of any outside institution in research and documentation
Some evaluation and reporting undertaken but neither systematic nor routine.	Fair	✓		
Systematic evaluation and routine reporting of management related trends undertaken.	Good			
Systematic evaluation and comprehensive reporting of trends undertaken and attempts made at course corrections as relevant.	Very good			

* Not all site attract projects and researchers and with exceptions, little research takes place on the site own steam because of systemic limitations. However, monitoring of some critical issues is expected e.g. population of tiger, co-predators and prey with insights into their demography and distribution (some opportunistic sampling by sightings, signs and spatial distribution during assessment would be extremely useful in terms of expert impression and as a pulse), monitoring incidence of livestock grazing, fires, weeds, sources of water, a variety of illegal activities typically associated with the reserve, wildlife health (e.g. epidemics, immunization of livestock) regeneration and change in vegetation, visitors and their activities, offence cases, ex-gratia payments etc. Details of number of research projects in the last 3 years, institutions involved, salient outcomes may be collected and used in awarding scores.

5.4 Is there a systematic maintenance schedule and funds in place for management of infrastructure/assets?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic inventory or maintenance schedule.	Poor			Although various registers and records are being maintained, there are no systematic schedules and funding patterns for asset maintenance.
Inventory maintenance is adhoc and so is the maintenance schedule.	Fair	✓		
Systematic inventory provides the basis for maintenance schedule but funds are inadequately made available.	Good			
Systematic inventory provides the basis for maintenance schedule and adequate funds are made available.	Very good			

6. Outcomes

6.1 Are populations of threatened species especially key faunal species declining, stable or increasing?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threatened/ endangered species populations declining.	Poor			Elephant population is on increasing trend.
Some threatened/ endangered species populations increasing, most others stable.	Fair			
Most threatened/ endangered species populations increasing, most others stable.	Good	✓		
All threatened/ endangered species populations either increasing or stable.	Very good			

* This needs to practically relate to the natural ecosystem potential rather than being driven merely by numbers and visibility. The assessment score may be elaborated under remarks. Comments on the population trends may be made under Remarks.

6.2 Have the threats to the site being reduced/ minimized or is there an increase?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats to the Site have not abated but have enhanced.	Poor			Threats are being minimized by having regular antipoaching measures.. Camps.in Khatkhata to Dalki forest has been renovated to help access to antipoaching patrols. Pitana watch tower is also one such example.
Some threats to the Site have abated, others continue their presence	Fair	✓		
Most threats to the Site have abated. The few remaining are vigorously being addressed	Good			
All threats to the Site have been effectively contained and an efficient system is in place to deal with any emerging situation	Very good			

6.3 Are the expectations of visitors generally met or exceeded?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Expectations of visitors generally not met.	Poor			Generally met with.
Expectations of many visitors are met.	Fair	✓		
Expectations of most visitors are met.	Good			
Good expectations of most visitors are met.	Very good			

* Is there any system of receiving/ analyzing visitor feedback?

6.4 Are local communities supportive of PA management?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Local communities are hostile.	Poor			To some extent by 18 SHGs.
Some are supportive.	Fair	✓		
Most locals are supportive of PA management.	Good			
All local communities supportive of PA management.	Very good			

* There could be many reasons for disenchantment. It could be real because of managerial neglect or the managerial efforts could be appropriate but there could be local elements/organizations who would like to keep the dis-affectation simmering for their own ulterior motives. Likewise success could be entirely because of the efforts of managers or they might be fortunate in striking partnerships with credible NGOs. Assessment may take the prevailing causes into account.

MEE Score Card

Framework Element Number	Framework Element Name	Number of Questions (a)	Maximum Mark per question (b)	Total (a x b)	Marks obtained for the Element	Overall Score
1.	Context	03	10	30	17.5	56%
2.	Planning	09	10	90	50	
3.	Inputs	05	10	50	30	
4.	Process	05	10	50	27.5	
5.	Outputs	04	10	40	20	
6.	Outcomes	04	10	40	22.5	
Total		30		300	167.5	

7. DEBRIGARH WILDLIFE SANCTUARY, ODISHA

MEE Year (2015-16)

Management Strengths

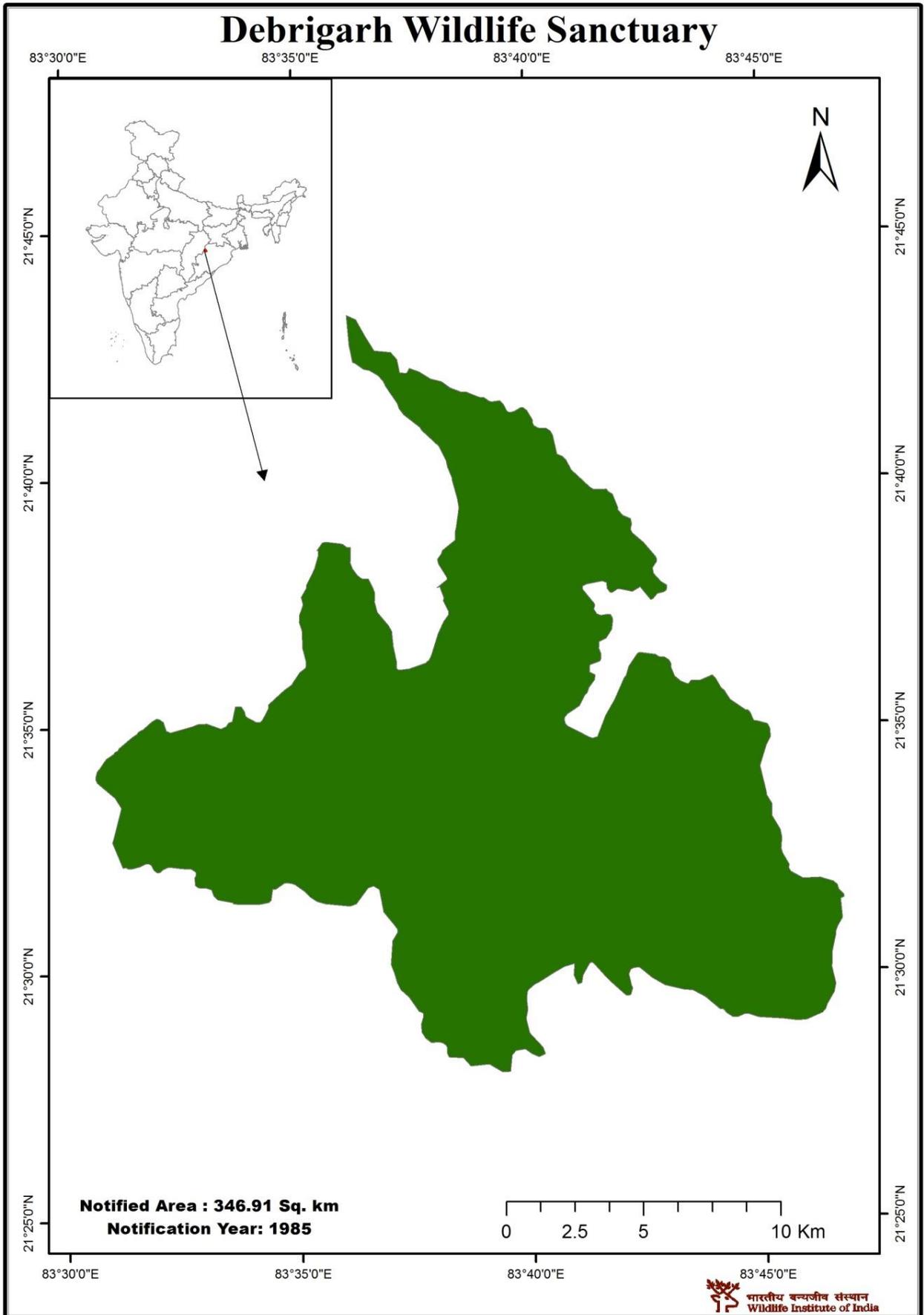
1. The sanctuary abuts the Hiraikud reservoir and forms a very valuable catchment of the Mahanadi river basin.
2. The sanctuary has only two villages inside it, and there are two more villages just on its fringes. The two villages inside the sanctuary are Debrigarh and Jhagadabehera. Debrigarh has already been vacated by its people. The recognition of their rights under the FRA has been completed, and all the families have alternate places of living. They are holding on to their property in this village to get compensation. The CWLW said that the sanctioning of compensation is in the final stage and for all practical purposes this village can be taken as vacated. Jhagadabehera has 39 families, and a sincere attempt is being made by the management to relocate these families from the sanctuary. There are two villages at the fringes of the sanctuary, Lambipalli and Mundokatti. There is no immediate proposal to relocate them.
3. Through Dechua RF, of Baragah District, and the forests of adjoining Chhattisgarh state, this sanctuary is connected to Sunabeda Sanctuary. Despite the fact that the connectivity is through some human-dominated areas, Elephants do use it as a corridor for their movements.
4. There are 12 anti-poaching camps located strategically in Kamgaon and Lakhanpur Ranges of the sanctuary. Though 21% of the frontline staff positions are vacant, the management of the sanctuary has recruited 80 daily wages staff members and strengthened the patrolling force. There is a good system of protection of the forests. Also, forest fires are kept under check.
5. The management also focuses on checking the areas below transmission lines outside the sanctuary so as to prevent farmers from drawing power illegally and connecting it to their solar fence to protecting the crops from Wild Pigs and other wild animals. Such checking outside the southern boundary of the sanctuary, where there are many villages, is quite intense.
6. The road maintenance work in the sanctuary is very good. As far as possible, side drains are provided on both sides of the roads and there are hardly any borrow pits in the forest area. Causeways and culverts are also maintained well. This maintenance helps the mobility of the protection staff. Tourists are also happy moving in the designated area.
7. The sanctuary is free of encroachments.

Management Weaknesses

1. There are 74 villages within 5 km of the boundary of the sanctuary. The communities residing in these villages depend on the forests of the sanctuary for their requirements of timber, fuel wood, fodder, bamboo, etc. Some miscreants residing in these villages are involved in hunting and poaching of wild animals.
2. The area between the highest flood level and usual maximum submergence is tree growth. In fact these are as good tree growth as in the sanctuary. The management says that these areas are in the administrative control of the Water Resources Department. The tourism infrastructure at Barkhandia has been established in one such area. Although it is technically outside the sanctuary, it disturbs the peace and tranquility of the sanctuary. The approach road is through the sanctuary. It provides for 14-bed accommodation, a dining place, etc. and is being run by the management of the sanctuary. There are rumours that similar infrastructure is to be created in other pockets and that the infrastructure at Barkhandia will be expanded. This should not be allowed.
3. There is water scarcity in summer in the hilly areas away from the reservoir. All the ponds constructed are close to the high flood level of the reservoir. Thus the density of wild animals such as the Sambhar, Gaur, Chausingha and Chital etc is high in areas abutting the reservoir. The management should create water holes in the higher ridges and remote locations of the hilly terrain.
4. Planting of fruit-bearing species is done on the bunds of all the artificially created water holes. Though tree guards have been provided, many of these plants have not grown well. Better seedlings and *Ficus* cuttings need to be planted.
5. There is no research and monitoring of the status of wild animals. Action must be taken to rope in some researchers (NGOs and universities) to carry out periodical censuses of important animal species.
6. The ecosensitive zone on the northwestern periphery of the sanctuary is restricted to only 2 km as against 5 km in other areas. It has been done to see that Dongri Lime stone mine, which is sold to ACC cement, can function smoothly.
7. The presence of industries to the north and northwest of the sanctuary, in Bargah and Jarsuguda districts, results in untreated pollutants being discharged in the River Mahanadi, which also pollutes the water in the reservoir.

Actionable Points

1. The expansion of tourism infrastructure and construction of new tourism complexes adjoining the sanctuary should be prohibited.
2. Some SMC works of loose boulders check dams be planned and implemented in remote hilly areas away from reservoir. Some of these water holes may have water even in summer. Some of the creeks transport water to interior locations in the rainy season. Check dams should be built across the creeks in consultation with the Water Resources Department.
3. Except the Range Officer Hiraakud, no other member of the front line staff has received any training in wildlife management. Short-duration courses (on sign surveys, censuses, the use of camera traps, data analysis, etc.) can be organized so that the staff are conversant with wildlife management. The services of NGOs and university experts may also be sought.
4. The industries discharging untreated sewage and pollutants may be educated so that they run their STPs and discharge only treated pollutants into rivers and water bodies.
5. The protection staff are already patrolling outside the sanctuary to check the illegal drawing of power to protect crops against Wild Pigs. This patrolling is a very good practice and must be continued. Other PAs in the country should also follow it.
6. There is a practice of constructing rectangular water ponds of size 40 m × 30 m × 3 m irrespective of the terrain and natural drainage of the area. No doubt this is successful, but a simpler structure can reduce the cost. The flow of water can be obstructed by a check dam of appropriate size with a waste weir. All the inlet channels will remain open, and there will be sufficient inflow.



1. Context

1.1 Are the values of the site well documented, assessed and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Values not systematically documented, assessed or monitored.	Poor		Management plan of Debrigarh Wildlife Sanctuary 2016-17 to 2025-26. Para 1.3 page-2	The sanctuary has species diversity; the undulating terrain is interspersed with miscellaneous forests, extensive meadows harboring variety of carnivores, herbivores animals. The vegetation is of mixed dry deciduous forest with bamboos. The important species are Bija, Sisso, Asan, Haland, Ainla, Harida, Bahada and quality III sal. The important animals are Leopard, Sloth Bear, Indian Wolf, Hyena, Wild dog, Gaur, Spotted deer, Nilgai, Sambhar, Four horned antelope, Porcupines etc. People from Sambalpur, Burla, Hirakud & Bolangir come to reservoir for recreation. The sanctuary is abetting this reservoir and forms a very valuable catchment. The sanctuary harbors variety of flora and fauna and is ecological integrity of the nation. Most values are systematically identified, assessed and monitored.
Values generally identified but not systematically assessed and monitored.	Fair			
Most values systematically identified and assessed and monitored.	Good	✓		
All values systematically identified and assessed and monitored.	Very good			

*Values would also include geo-morphological, historico-cultural and faunal and floral species.

1.2 Are the threats to site values well documented and assessed?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats not systematically documented or assessed.	Poor		Para 3.12 page 23 of Management Plan enumerates threat to wildlife. Para 3.6.2, 3.6.3, 3.6.4 & 3.6.5 of page 16 & 17 of Management Plan	All the threats to habitat and wildlife such as illicit felling, forest fire, hunting, disease spreading from domestic cattle, heavy inflow of tourist, illegal fishing, discharge of pollutants from industries located in Jharsuguda site in Mahanadi catchment. Issues relating to forest protection are enumerated in Para 6.6.2 & 6.6.3 where hunting, poaching, illegal cutting of trees, illegal removing of NWFP, grazing, forest fire and encroachment of illegal activities are described. All threats are systematically identified and assessed.
Threats generally identified but not systematically assessed.	Fair			
Most threats systematically identified and assessed.	Good			
All threats systematically identified and assessed.	Very good	✓		

* This assessment should be based on number, nature and extent of threats. Threats within and outside PA should both be considered. Impacts, if any on the population abundance of key species may be indicated in the remarks.

1.3 Is the site free from human and biotic interference?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
The site has extensive human and biotic interference.	Poor		Appendix – 23, 24 & 26 page 114, 115 & 117 of Management Plan	All the four villages inside the sanctuary are listed in Appendix 23 of the Management Plan and the cattle population in the villages including Goats, Poultry and dogs are provided in Appendix-24 of the Management Plan. Further, there are 74 villages within 5 kms radius from the sanctuary boundary and these villages are listed in Appendix – 26 of the management plan. The sanctuary has little human and biotic interference as there are only four villages inside. However villages outside sanctuary, especially on the southern boundary do have dependency on the sanctuary..
The site has some human and biotic interference.	Fair			
The site has little human and biotic interference.	Good	✓		
The site has no human and biotic interference.	Very good			

*This assessment should be based on existence of human settlements/ villages; livestock grazing, cultivation, encroachments etc, resource extraction/ livelihood dependence of local communities and should reflect the overall interference due to all the above factors. Number and size of human settlements/ enclaved villages and their impacts on the site may be indicated in the Remarks.

2. Planning

2.1 Is the site properly identified (NP/WLS) and categorized (in terms of zonation) to achieve the objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not identified correctly or categorized.	Poor		Para 6.3 page 31 to 36 of Management Plan	The sanctuary has been divided in four zones namely Core Zone, Buffer or multiple zone, Tourism Zone(overlapping) & Administrative Zone. The sanctuary notification was made in 1985, which provided for only 51 Sq Kilometer area under Core zone. The latest Management Plan has earmarked the entire 353 sq. kilometer area under core zone of the sanctuary. In addition, area in the strip of 5 km from the boundary of the sanctuary all round except along ACC Dungri limestone mines is recently notified by the Govt. of India as Eco-sensitive zone. The width of Eco sensitive Zone is restricted to 2 km in ACC Dungri lime stone mine area.
Site identified correctly but not categorized.	Fair			
Site identified correctly but not systematically categorized.	Good	✓		
Site identified correctly and systematically categorized with proper zonation plans.	Very good			

Management prescriptions for various zones (Core, Buffer, Tourism etc) may be carefully assessed.

2.2 Does the site have a comprehensive Management Plan?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No relevant Management Plan in place.	Poor		Management Plan 2016-17 to 2025-26	Sanctuary has comprehensive management plan approved by Chief Wildlife Warden vide Memo No.3346 Dt.28.04.2016.
Management Plan exist but not comprehensive.	Fair			
Site has a comprehensive Management Plan.	Good	✓		
Site has a comprehensive, science based Management Plan prepared through a participatory process.	Very good			

Is the Management Plan consistent with WII Guidelines or not? The extent to which the concerns of the stakeholders, if any have been incorporated in the Management Plan may be commented upon.

2.3 Is the Management Plan routinely and systematically updated?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No process in place for systematic review and update of Management Plan.	Poor			Management Plan has been recently updated. It is in operation from the current financial year. Usually these Plans are for ten years and there is no system of updating it during this period. However if there is any urgency to implement any particular scheme it is implemented with prior approval of Chief Wild Life Warden.
Management Plan sometimes updated in adhoc manner.	Fair			
Management Plan routinely and systematically updated.	Good	✓		
Management Plan routinely, systematically and scientifically updated through a participatory process.	Very good			

2.4 Does the site safeguards the threatened biodiversity values?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Sites does not safeguard the threatened biodiversity values.	Poor		Para 12.4 of Management plan page 36 to 46 of Management Plan.	The management plan clearly prescribes theme plan for restoration of Habitat which includes restoration of meadows, restoration of bamboo clumps, weed eradication, planting and sowing of fruit species, soil moisture conservation work, fire control, restoration of salt licks, relocation of forest villages, rescue and rehabilitation of straying wild animals The prescription helps in safeguarding all threatened biodiversity values.
Sites safeguards a few threatened biodiversity values.	Fair			
Sites safeguards a large number of threatened biodiversity values.	Good			
Sites safeguards all threatened biodiversity values.	Very good	✓		

* Remarks need to elaborate on the kind of safeguards and how they work or are intended to work

2.10

Are stakeholders given an opportunity to participate in planning?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little, if any opportunity for stakeholder participation in planning.	Poor		Discussion with DFO	Stakeholders participate in planning limited works relating to Eco tourism initiatives, relocation of villages etc..
Stakeholders participate in some planning.	Fair	✓		
Stakeholders participate in most planning processes.	Good			
Stakeholders routinely and systematically participate in all planning processes.	Very good			

* The result of participation must show in the field and not merely reported as a routine exercise. Further, is there a system/scope of putting the draft Management Plan in Public Domain in place?

2.6 Are habitat restoration programmes systematically planned and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Habitat restoration programmes are entirely adhoc.	Poor		Para 12.4.1 of management plan from page 36 to 42	The programs relating to habitat improvement is implemented in the sanctuary after due planning. Annually, areas are identified for meadows development, weed eradication, water hole construction and maintenance. Also old salt licks are restored by applying rock salt and common salt mixed with clay soil. Habitat improvement works in respect of bamboo clumps is also planned, which includes removal of stumps, thinning dense entangled bamboos etc. Soil and moisture conservation works like construction of check dams, gully plug and contour bunds of major nallas are planned and implemented. Further water conservation through renovation of water holes and game tanks are planned and implemented. Fire control planning, awareness training, fire line tracing, fire fighting with special squads, erecting 1.5 feet high stone wall around the contour up to 440 running feet to prevent jumping of fire etc are planned and implemented.
Limited planning and monitoring programmes are in place for habitat restoration.	Fair			
Habitat restoration programmes are generally well planned and monitored.	Good			
Habitat restoration programmes are thoroughly planned and monitored.	Very good	✓		

* This assessment should be primarily based on habitat management programmes in relation to habitats for species that are threatened (IUCN categories), are habitat specialists, subjected to seasonal movements, wide ranging with emphasis on the breeding and rearing habitat and may include factors such as food, water, shelter (all connotations).Habitat structure, composition, unique patches of vegetation and sensitive sites, sources of water and their distribution are integral. Corridors within buffer zone are critically important. For example, all riparian habitats. Have these been addressed? Is their a planning process in place? What is the extent of 'invasive species in the Site? Are there any measures to reduce/ remove them? Have these been successful?

2.7 Does the site has an effective protection strategy?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Site has no protection strategy.	Poor		Para 12.4.2 page 41 to 45 of Management Plan	Enough planning has been done for protection of wildlife and habitats. Anti-poaching protection camps, boundary maintenance, improving access to sanctuary through new road construction and repair of old roads and extraction paths for surveillance and monitoring, repair of old bridges and culverts etc. are planned and implemented. Improvement and use of boats, provision of modern gadgets for crime control, provision for crime cell and prosecution cell, are helpful for protection of forests and wildlife. There are 12 Anti poaching camps located in both the ranges of the sanctuary which are provided the trained permanent staff of beat guard/ forester and assisted by 3 to 4 daily wages workers, who take up patrolling of forest in their designated jurisdiction. Sanctuary has a comprehensive and very effective protection strategy. The detail of offence cases booked by the staff during last 3 years is shown in the table below this Para.
Site has an adhoc protection strategy.	Fair			
Site has a comprehensive protection strategy but is not very effective.	Good			
Site has a comprehensive and very effective protection strategy.	Very good	✓		

* This assessment takes *inter-alia* into account the nature of threats, the number and location of patrolling camps and foot and mobile patrolling, needs that relate to available manpower, terrain difficulties, practicability of area coverage, readiness to contain specific threats with necessary support and facilities. Is there any coordination with other wings of the Forest Department/ Police/ Customs etc? Are these effective?

Number of forest Wildlife Offences in last 3 years and their present status.

Name of the Division	Year	No. of Wildlife cases booked		Total	Species killed	No. of offender arrested	Present status of the case
		UD	OR				
1	2	3	4	5	6	7	8
Hirakud Wildlife Division, Sambalpur	2013-14	0	0	0	0	0	
	2014-15	1	1	2	Sambar -1; Leopard cub-1	1	Under trial
	2015-16	1	6	7	Sambar-7; Wildboar-1	16	Under trial

2.8 Has the site been effective in the mitigation of human-wildlife conflicts?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Human-wildlife conflicts are rampant.	Poor			Wildlife straying in human habitations within the sanctuary is uncommon. However straying of wild boars in the agricultural fields in the villages along the southern periphery of the sanctuary is common and these conflict cases are dealt in adjoining Bargarh Forest Division. The management of the sanctuary constantly keep a vigil on the electric lines passing through these areas especially along the southern periphery of the sanctuary and ensures that no farmer hooks the overhead live wire for drawing illegal power through solar fence (usually provided for protection of crops) so as to prevent electrocution of wild boar and other wild animals. The management is effective in mitigating all human-wildlife conflicts.
Site has been able to mitigate few human-wildlife conflicts.	Fair			
Site has been able to mitigate many human-wildlife conflicts.	Good			
Site has been able effective in mitigating all human-wildlife conflicts.	Very good	✓		

* Judgment needs to consider staff training, capabilities, equipment, logistics, local attitude and politics (negatively aided and/or abetted), assistance of relevant agencies (e.g. police. Local administration, Local people themselves) PR, follow-up actions and monitoring. Details of compensation paid for human injury/ death and property damage in the last 3 year may be collected.

2.9 Is the site integrated into a wider ecological network landscape following the principles of the ecosystem approach?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not integrated into a wider network/ landscape.	Poor			The sanctuary is connected to Dechuan RF, Jhanja Pahad RF, Arwal RF of Bargarh Forest Division which is also connected to some forest area of Chhatisgarh state. The forests of Chhatisgarh state is connected to Sunabeda Wildlife Sanctuary of Odisha State. Thus, there is a corridor connecting all the above mentioned forests for the movement of long ranging wild animals. Working plan of Bargarh Forest Division has also provided wildlife conservation working circle (overlapping) which focuses on the conservation of wildlife. Site is generally quite well integrated into a network/ landscape.
Some limited attempts to integrate the site into a network/ landscape.	Fair			
Site is generally quite well integrated into a network/ landscape.	Good	✓		
Site is fully integrated into a wider network/ landscape.	Very good			

* Assessment needs to consider the scope of opportunities on the landscape scale that exist. Consider whether any attempts have been made and what are these? Have all the important corridors been identified? What actions are planned/implemented for their security? Have the Forest Working Plans and Forest Development Corporation Plans within the identified landscapes taken cognizance of such new requirement? What kind of relationship exists with the District Administration and other Line Departments? Does the Site get any funds from these agencies?

3. Inputs

3.1 Are personnel adequate, well organized and deployed with access to adequate resources on the site

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Few, if any, personnel explicitly allocated for PA management.	Poor		Discussion with DFO and verification records in his office.	The sanctuary management has the strength of 100 staff, of which, 79 places are filled up and 21 position are vacant. Besides these, there are 80 daily wages employees located at different anti poaching camp engaged in protection of forest and wildlife. The details of staff strength and the vacancy position are shown in a table below these para. All these personnel are allocated towards achievement of specific management objectives.
Some personnel explicitly allocated for PA management but not systematically linked to management objectives.	Fair			
Some personnel explicitly allocated towards achievement of specific management objectives.	Good	✓		
Adequate personnel explicitly allocated towards achievement of specific management objectives.	Very good			

* This assessment should *inter-alia* be based on number of personnel allocated for attainment of PA objectives at the Range, Round, Beat and Patrolling camps levels or as relevant to the needs (sanctioned posts *vis- a- vis* existing personnel and needs beyond the sanctioned strengths. It is possible that posts have last been sanctioned several years back that do not now account for the current needs)

Staff position with special reference to vacancies of front line forest staff and age Profile

Sl No.	Category of the Post	Age profile	Sanctioned strength	Men in Position	Vacancy Position.
1	2	3	4	5	6
1	DFO	53(1 No.)	1	1	0
2	ACF	53(1 No.)	1	1	0
3	Forest Ranger	41 to 50(4 Nos.)	5	4	1
4	F.E.S		1	0	1
5	V.A.S		1	0	1
6	Head Clerk		1	1	0
	TOTAL GRADE-B		8	5	3
7	Jr.Actt.		5	5	0
9	Jr. Steno		1	0	1
10	Dy.Ranger	52(1No.)	2	1	1
11	Forester	51 to 60(8Nos) & 31 to 40 (9Nos)	21	17	4
12	Junior Clerk		7	5	2
13	Driver(LV)		1	1	0
14	Lunch Driver		1	1	0
15	Forest Guard	51 to 60(3Nos) & 41 to 50 (2 Nos) & 21 to 30 (33Nos)	48	38	10
	TOTAL GRADE-C		86	68	18
16	Office Peon		1	1	0
17	Office Chokidar		1	1	0
18	Boat Man		1	1	0
19	Animal Keeper		1	1	0
	TOTAL GRADE-D		4	4	0
	GRAND TOTAL		100	79	21

3.2 Are resources (vehicle, equipment, building etc.) adequate, well organised and managed with access to adequate resources?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Few, if any, resources explicitly allocated for PA management.	Poor		Appendix-35, 36 & 37 page 126 – 128 of Management Plan. Discussion with DFO and consultation with field staff.	The list of vehicle, building is provided in appendix 35 to 37 of management plan. These are nearly sufficient for the requirement of the management of the sanctuary. The road maintenance has been done very well which helps the mobility of the staff.. During the discussion with DFO, it is found that two or three more building may be needed to fulfill the requirement. Also two more vehicles are necessary for the movement of the staff for the patrolling of the forest. List of VHF, GPS, fire blowers, Camera Trap available with the management is shown in the table below this Para. Some more fire blowers would be necessary for the requirement of the management.
Some resources explicitly allocated for PA management but not systematically linked to management objectives.	Fair			
Some resources explicitly allocated towards achievement of specific management objectives.	Good	✓		
Adequate resources explicitly allocated towards achievement of specific management objectives.	Very good			

* These form a variety of resources. These may be segregated into immovable (structures) and movable categories and each further may be considered under the essential and desirable categories. It is best to start with what are the minimum needs to attain each objective, what is available and manner of use/deployment. The proportions of the 'essentials' and 'desirables' along the importance gradient of objectives would serve as pointers for score categories. Specific remarks would be vitally important.

List of Field Equipment

1)SOLAR STREET LIGHT

Quantity in Nos.	Name of Scheme
5 nos	CAMPA APO 2011-12
Installation Charges	
3 nos	CAMPA APO 2011-12
Installation Charges	
10 nos	CAMPA APO 2011-12
Installation Charges	
15 nos	CAMPA APO 2012-13
Installation Charges	
10 nos	
Installation Charges	State Plan-2014-15
6 nos	
Installation Charges	
5 nos	State Plan -2016-17
Installation Charges	
4 nos	State Plan -2016-17
Installation Charges	
58 nos.	

2) SOLAR HOME LIGHT

Quantity in Nos.	Name of Scheme
2 nos	CAMPA APO 2011-12
installation charges	
6 nos	CAMPA APO 2011-12
installation charges	
1 no	CAMPA APO 2011-12
installation charges	
3 nos	13th FC Non Plan and State Plan-2014-15.
installation charges	
9 nos	State Plan -2016-17
Installation Charges	
21 nos	

3) SOLAR LANTERN

Quantity in Nos.	Name of Scheme
Solar Lantern - 1 nos	13th FC Non Plan-2014-15

4) CUDDERBACK CAMERA TRAP

Quantity in Nos.	Name of Range
16 nos	Kamgaon WL Range
9 no	Lakhanpur WL Range
4 nos.	Sambalpur WL Range
29 nos	

5) KIT BAGS

Quantity in Nos.	Name of Scheme
Kit Bag -100 nos	CAMPA APO 2013-14

6) REFLECTIVE JACKET

Quantity in Nos.	Name of Scheme
Reflective Jacket -100 nos	CAMPA APO 2013-14

7) LED SEARCH LIGHT

Quantity in Nos.	Name of Scheme
LED Search Light -7 nos	CAMPA APO 2014-15

8) NIGHT VISION GOOGLE

Quantity in Nos.	Name of Scheme
Night Vision Google -2 nos	CAMPA APO 2014-15

9) SEARCH LIGHT SHARP SHOOTER

Quantity in Nos.	Name of Scheme
Search Light Sharp Shooter -1 no	CAMPA APO 2014-15

10) LIFE JACKET

Quantity in Nos.	Name of Scheme
Life Jacket -48 pairs	CAMPA APO 2014-15
Life Jacket -48 pairs	State Plan Scheme 2015-16

11) GPS SETS

Quantity in Nos.	Name of Scheme
GPS Set- 29 nos.	CAMPA APO 2014-15

12) BINOCULARS

Quantity in Nos.	Name of Scheme
Binocular- 7 nos.	CAMPA APO 2014-15

13) MISTH BLOWER

Quantity in Nos.	Name of Scheme
Misth Blower- 6 nos.	CAMPA APO 2014-15
Misth Blower- 10	CAMPA APO 2015-16

3.3 Are resources (human and financial) linked to priority actions and are funds released timely?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Resource allocation is adhoc, funds are inadequate and seldom released in time and not utilized.	Poor		Discussion with DFO and verification of records	Human and financial resources are sufficient. However the fund received during the current financial year is bit inadequate. It is necessary to maintain the fund flow at the level of two previous years.. Fund received during last three years from the central as well as state are shown in the table below these Para.
Some specific allocation for management of priority action. Funds are inadequate and there is some delay in release, partially utilized.	Fair			
Comprehensive planning and allocation that meets the most important objectives. Generally funds released with not much delay and mostly utilized.	Good	✓		
Comprehensive planning and allocation of resources for attainment of most objectives. Funds generally released on-time and are fully utilized.	Very good			

*Obtain details of funds released by MoEF and their utilization by site in the last 3 years and indicate them under 'Remarks'. Also comment on the problems associated with funds and their mitigation.

Sl. No	Head of Account	Allotment & Expenditure year wise					
		2014-15		2015-16		2016-17	
		Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure
1	2	3	4	5	6	7	8
1	22-2406-02-110-2313-20002 (Central Plan) Integrated Development of Wildlife Habitat	21.91100	21.91100	21.91330	21.91330	26.69000	17.91707
2	22-2406-01-101-2556-78124-908- (13th FC Non Plan) Grants for creation of Capital Assets- Raising of Sapling	4.00000	4.00000	-	-	-	-
3	22-2406-01-101-2556-78378-918- (13th FC Non Plan) Protection of Working Plan Circle- Increasing Green Cover in the State-Raising of Sapling	7.73400	7.73400	-	-	-	-
4	22-2406-01-102-2829-20002 (State Plan) Increasing Green Cover in the State- Raising of Sapling under Agro Forestry and Maint. of Bomboo Plantation	6.00500	6.00500	-	-	-	-
5	22-2406-01-102-3024-21168 (State Plan) Management of Plantation-Raising of Sapling (T.O.F.)	-	-	3.75000	3.75000	-	-
6	22-2406-02-110-1571-20002 (State Plan) Wildlife Protection & Conservation Measure those for Black Buck & Fresh Water Turtles	23.21000	23.21000	49.33000	49.33000	-	-
7	22-2406-02-110-2006-78317 (State Plan) One time ACA- Eco-tourism in Wildlife Sanctuary	5.00000	5.00000	-	-	-	-
8	22-2406-02-110-2314-20002 (State Plan) Elephant Management Project	-	-	13.03520	13.03520	-	-
9	22-2406-02-110-2316-20002 (State Plan) Development of Eco-tourism	-	-	-	-	115.00000	31.40941
10	22-2406-02-110-2557-22043-908 (13th FC Non Plan) Grant in aid (Non-Salary) for Preservation of Forest Wealth	41.42250	41.42250	-	-	-	-
11	22-2406-02-110-3128-20002 (State Plan) Wildlife Protection & Conservation Measure those for Black Buck & Fresh Water Turtles	-	-	-	-	43.75000	15.54472
12	22-2406-02-110-3173-20002 (State Plan) Elephant Management Project	-	-	-	-	19.00000	7.95800
13	22-2406-02-789-3128-20002 (State Plan) Wildlife Protection & Conservation Measure those for Black Buck & Fresh Water Turtles	-	-	-	-	3.00000	2.90800
14	22-2406-02-796-2006-78317 (State Plan) One time ACA- Eco-tourism in Wildlife Sanctuary	20.00000	20.00000	-	-	-	-

15	22-2406-02-796-2314-20002 (State Plan) Elephant Management Project	-	-	7.10000	7.10000	-	-
16	22-2406-02-796-3128-20002 (State Plan) Wildlife Protection & Conservation Masure those for Black Buck & Fresh Water Turtles	-	-	-	-	14.95000	9.62256
17	22-2406-02-796-3173-20002 (State Plan) Elephant Management Project	-	-	-	-	3.30000	1.61528
TOTAL		129.28250	129.28250	95.12850	95.12850	225.69000	86.97504

3.4 What level of resources is provided by NGOs?

Assessment criteria*				
Condition*	Category*	(Tick ✓)	Reference document(s)	Remarks
NGOs contribute nothing for the management of the site.	Poor	✓	Discussion with DFO.	No financial or any other support is received from any NGO group.
NGOs make some contribution to management of the site but opportunities for collaboration are not systematically explored.	Fair			
NGOs contributions are systematically sought and negotiated for the management of some site level activities.	Good			
NGOs contributions are systematically sought and negotiated for the management of many site level activities.	Very good			

Details of contributions(cash/kind) made by the NGOs in the last 3 years may be collected.

3.5 Does PA manager considers resources (human and financial) to be sufficient?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Resources insufficient for most tasks.	Poor		Discussion with DFO	The management has been getting adequate financial allotment during past several years. However during the current financial year the central budget is bit slashed down as a result little inadequacy is experienced. Though there is 21% vacancy in the staff strength, the management has been engaging daily workers for a accompanying Foresters and Forest Guards in the patrolling of the sanctuary.
Resources sufficient for some tasks.	Fair			
Resources sufficient for most tasks.	Good	✓		
Resources are in excess for most tasks.	Very good			

4. Process

4.1 Does the site have trained manpower resources for effective PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Very few trained officers and frontline staff in the site.	Poor		Discussion with DFO and verification of records.	Recruitment of Forest Guards and Foresters was suspended for nearly two decades and is re-started for last four five years. As a result, all of them do not have places in Training schools. Many of these staff are directly posted to Beats and sections without training. They are likely to be provided training in a phased manner. A list of newly recruited FGs and Foresters, who are yet to receive their Foundational Training, is shown in the table below this Para.
Few trained officers and frontline staff, who are posted in the site.	Fair			
A large number of trained officers and frontline staff are posted in the site.	Good	✓		
All trained managers and frontline staff posted in the site.	Very good			

* Indicate % of trained staff in various categories. i.e. Higher Management: ACF/ DCF/ CF/ CCF; Frontline Staff: Range Officer; Beat Officer; Forest Guard; Casual Daily Labour (CDL); Others.

Untrained Forester

1.	Miss. Sunita Soreng
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Untrained Forest Guards

1.	Sri Krushna Seth
2.	Smt. Meetarani Mohapatra
3.	Sri Dushmanta Tripathy
4.	Sri Manoj Gond
5.	Ku. Rashmita Behera
6.	Sri Rohita Bag
7.	Sri Sanjay Kerketa

4.2 Is PA staff performance management linked to achievement of management objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No linkage between staff performance management and management objectives.	Poor			The main job of the staff at cutting edge level is to protect the forests and wildlife and to improve the condition of the habitat. All of them are engaged for this purpose which is helpful in achieving the objectives. Good performers are rewarded at the State level on Forestry Day. It is state Forestry award, which is granted at the state level on the recommendation of the DFO in charge of the management of the sanctuary. List of personnel awarded during past years are provided in the Para below this table.
Some linkage between staff performance management and management objectives, but not consistently or systematically assessed.	Fair			
Performance management for most staff is directly linked to achievement of relevant management objectives.	Good	✓		
Performance management of all staff is directly linked to achievement of relevant management objectives.	Very good			

*Has the PA staff received award/ appreciation from any agency in the last 3 years?

SI No.	Name of the staff	Award Name	Year
1.	Sri Nilanchal Jena, Forester	State Forestry Award	2016
2.	Sri Bhubaneswar Muduli, FG	Recommended for the same award	2017
3.	Sri Dipak Pradhan, FG	-do-	2017
4.	Miss. Sabitri Khadia, FG	-do-	2017

4.3 Is there effective public participation in PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no public participation in PA management.	Poor		Discussion with DFO	Involvement of public in planning and implementing works in the sanctuary is missing. However some co-operation is sought from some members of the public for intelligence gathering, forest fire fighting and eco-tourism initiatives.
Opportunistic public participation in some aspects of PA management.	Fair	✓		
Systematic public participation in most aspects of PA management.	Good			
Comprehensive and systematic public participation in all important aspects of PA management.	Very good			

* Participation would include Conservation & awareness programmes, Census operations, Intelligence gathering, Forest fire control etc.

4.4 Is there a responsive system for handling complaints and comments about PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic approach to handling complaints.	Poor		Discussion with DFO	There is a provision for RTI where in all information relating to sanctuary can be accessed.. Some times the complain against the works done by staff /purchases made by them are referred to collector Bargarh/ Sambalpur.. These complaints are finally referred to the DFO wildlife management for necessary action. The management is also planning to open the complaint register and put complaint boxes at all range offices as well as division office.
Complaints handling system operational but not responsive to individual issues and limited follow up provided.	Fair			
Coordinated system logs and responds effectively to most complaints.	Good	✓		
All complaints systematically logged in coordinated system and timely response provided with minimal repeat complaints.	Very good			

* Number of queries made and response thereof under the Right to Information (RTI), Act in the last 3 years may be compiled.

4.5 Does PA management address the livelihood issues of resource dependent communities especially of women?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No livelihood issues are addressed by PA management.	Poor		Discussion with DFO	As explained, there are only four villages inside the sanctuary and management is making all efforts to see that these villages are relocated. Further there are 74 villages all round within 5 kms from the boundary of the sanctuary. The communities in these villages are depending upon the sanctuary for bamboo, timber, firewood etc requirement. The management has established 12 EDCs on the fringes of the sanctuary. Though these EDCs are not very active, management is making efforts to see that their participation in preventing illegal activities is enhanced. Very few members of the community are provided employment in habitat restoration works and Eco tourism initiatives.
Few livelihood issues are addressed by PA management.	Fair	✓		
Substantial livelihood issues are addressed by PA management.	Good			
Livelihood issues of resource dependent communities especially women are addressed effectively by PA managers.	Very good			

5. Output

5.1 Is adequate information on PA management publicly available?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no information on PA management publicly available.	Poor		Discussion with DFO and verification of records	Several detail regarding the sanctuary is available in the website of forest department, wildlife wing and also tourism department. Many leaflets, Broachers are available which decimates information regarding the sanctuary.
Publicly available information is general and has limited relevance to management accountability and the condition of public assets.	Fair			
Publicly available information provides detailed insight into major management issues for most PAs or groups of PAs.	Good	✓		
Comprehensive reports are routinely provided on management and condition of public assets in all PAs or groups of PAs.	Very good			

* Does the Site has a website? If yes, is it comprehensive, well-managed and periodically updated?

5.2 Are visitor services (tourism and interpretation) and facilities appropriate for the relevant protected area category?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Visitor services and facilities are at odds with relevant PA category and/or threaten PA values.	Poor		Interaction with visitors, discussion with staff and observation of visitors on the response register. At the tourist entry gate the register are maintained at Dhodrokusum.	At Barakhandia, there is a Eco-tourism complex with 14 bedded accommodation and facilities for dining etc. During the peak season the tourists occupy the facilities fully and enjoy the wilderness experience. The road from Dhodrokusum to Chourasimal is opened for tourist between 6 am to 6 pm with a break from 12 noon to 2 pm. The road and the tourist buildings are maintained well. Response of tourist is recorded in the register. It is found that tourists have appreciated the facilities and have enjoyed the experience. Details of visitors during last 3 years and revenue realized are provided in the table below this Para.
Visitor services and facilities generally accord with relevant PA category and don't threaten PA values.	Fair			
All visitor services and facilities accord with relevant PA category and most enhance PA values.	Good			
All visitor services and facilities accord with relevant PA category and enhance PA values.	Very good	✓		

* Include the existence and quality of visitor and interpretation centers, including skills and capabilities of personnel manning these, site related publications, films, videos; arrangements of stay (including places serving refreshments and food owned and managed by site), watch towers and hides including safety factors, vehicles assigned for visitors including riding elephants, if any and their deployment, drinking water, rest rooms, garbage disposal, attended and self guided services in the field, visitor feed back on the quality of wilderness experience. Details of numbers of visitors/ tourists(both domestic and overseas) coming in the last 3 years and the revenue earned may be compiled.

Details of visitors during last 3 years:-

Year	No. of visitors	Amount collected (in Rs.)
2013-14	5141	108833
2014-15	3920	92845
2015-16	5822	149235
2016-17 up to December-16	3987	172015

5.3 Are research/ monitoring related trends systematically evaluated and routinely reported and used to improve management?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no systematic evaluation or routine reporting of trends.	Poor		Discussion with DFO and verification of records	Animal sighting register is maintained at the camps of the ranges. The sighting of sambar, Gaur, Leopard, Chital chousingha, Sloth bear have been recorded. Then the camera trap photos have revealed the presence of wild dogs. Camera trap photos have also confirmed the presence of many wild animals mention above. There is no research / monitoring exercise taken up to conclude the status of wild animals. However it can be concluded from the sighting register that there is an increasing trend of threatened faunal species.
Some evaluation and reporting undertaken but neither systematic nor routine.	Fair	✓		
Systematic evaluation and routine reporting of management related trends undertaken.	Good			
Systematic evaluation and comprehensive reporting of trends undertaken and attempts made at course corrections as relevant.	Very good			

* Not all site attract projects and researchers and with exceptions, little research takes place on the site own steam because of systemic limitations. However, monitoring of some critical issues is expected e.g. population of tiger, co-predators and prey with insights into their demography and distribution (some opportunistic sampling by sightings, signs and spatial distribution during assessment would be extremely useful in terms of expert impression and as a pulse), monitoring incidence of livestock grazing, fires, weeds, sources of water, a variety of illegal activities typically associated with the reserve, wildlife health (e.g. epidemics, immunization of livestock) regeneration and change in vegetation, visitors and their activities, offence cases, ex-gratia payments etc. Details of number of research projects in the last 3 years, institutions involved, salient outcomes may be collected and used in awarding scores.

5.4 Is there a systematic maintenance schedule and funds in place for management of infrastructure/assets?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic inventory or maintenance schedule.	Poor		Discussion with DFO and verification of records	As such there is no maintenance schedule for the maintenance of the infrastructure. However, depending upon the availability of fund in a particular year, DFO fixes the priority for the maintenance of office and residential building. Some times the there is a inadequacy of fund for maintenance of DFO/ACF quarter while the residential buildings of staff in remote area are given priority for maintenance.
Inventory maintenance is adhoc and so is the maintenance schedule.	Fair			
Systematic inventory provides the basis for maintenance schedule but funds are inadequately made available.	Good	✓		
Systematic inventory provides the basis for maintenance schedule and adequate funds are made available.	Very good			

6. Outcomes

6.1 Are populations of threatened species especially key faunal species declining, stable or increasing?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threatened/ endangered species populations declining.	Poor		Sighting register at different camps	As explained in para 5.3 there is no census figures for the wild animal in the sanctuary. However sighting of wildlife register is maintained in different AP camp reveal that the population of several faunal threaded species are either stable or increasing.
Some threatened/ endangered species populations increasing, most others stable.	Fair			
Most threatened/ endangered species populations increasing, most others stable.	Good	✓		
All threatened/ endangered species populations either increasing or stable.	Very good			

* This needs to practically relate to the natural ecosystem potential rather than being driven merely by numbers and visibility. The assessment score may be elaborated under remarks. Comments on the population trends may be made under Remarks.

6.2 Have the threats to the site being reduced/ minimized or is there an increase?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats to the Site have not abated but have enhanced.	Poor		Discussion with DFO, ACF & Other staff.	There is no encroachment in the sanctuary. Also the illicit felling and poaching is kept fairly in check. Instances of forest fire, which is on account of MFP(Kendu Leaves, /Sal Seeds, Mahula) collectors is also kept in control. The efforts of the management is to be appreciated.. The management is making efforts to relocate villages and have intensified patrolling on the southern boundary of the sanctuary. The threats will be kept in check.
Some threats to the Site have abated, others continue their presence	Fair			
Most threats to the Site have abated. The few remaining are vigorously being addressed	Good	✓		
All threats to the Site have been effectively contained and an efficient system is in place to deal with any emerging situation	Very good			

6.3 Are the expectations of visitors generally met or exceeded?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Expectations of visitors generally not met.	Poor		Visitors register maintained at Dhodrokusum & Barakhandia.	Yes, The visitors are satisfied with the facilities created for tourism. Their expectations are fully met.
Expectations of many visitors are met.	Fair			
Expectations of most visitors are met.	Good			
Good expectations of most visitors are met.	Very good	✓		

* Is there any system of receiving/ analyzing visitor feedback?

6.4 Are local communities supportive of PA management?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Local communities are hostile.	Poor		Discussion with DFO	Some local communities are supporting the management, while there are many on the southern boundary of the sanctuary who are indifferent.
Some are supportive.	Fair	✓		
Most locals are supportive of PA management.	Good			
All local communities supportive of PA management.	Very good			

* There could be many reasons for disenchantment. It could be real because of managerial neglect or the managerial efforts could be appropriate but there could be local elements/organizations who would like to keep the dis-affectation simmering for their own ulterior motives. Likewise success could be entirely because of the efforts of managers or they might be fortunate in striking partnerships with credible NGOs. Assessment may take the prevailing causes into account.

MEE Score Card

Framework Element Number	Framework Element Name	Number of Questions (a)	Maximum Mark per question (b)	Total (a x b)	Marks obtained for the Element	Overall Score
1.	Context	03	10	30	25	75%
2.	Planning	09	10	90	75	
3.	Inputs	05	10	50	32.5	
4.	Process	05	10	50	32.5	
5.	Outputs	04	10	40	30	
6.	Outcomes	04	10	40	30	
Total		30		300	225	

8. KOTAGARH WILDLIFE SANCTUARY, ODISHA

MEE Year (2015-16)

Management Strengths

1. The habitat is the catchment area of several streams, which are tributaries of important rivers, namely the Rahul and Chauldhua. The water is used for irrigation, power and drinking.
2. The biological diversity of the sanctuary is rich, which is a very strong reason for providing protection.
3. Part of the sanctuary is situated in the Kotagarh–Chandrapur elephant corridor, which is a very important corridor for the movement of elephants between Kalahandi and Raigarh. Plenty of bamboo is available in the area, and it provides food to elephants and other ungulates. Thus, instances of human–elephant conflict are minimal.
4. Although there are no statutory compulsions, an area of 1254 km², including 266 revenue villages in 414 km² around the sanctuary, has been declared the buffer zone of the sanctuary. This is a positive commitment on the part of the state of Odisha in helping conservation. Mainstreaming wildlife in the buffer area will help conservation further.
5. Young persons from the local Kuttia Kondh tribe are recruited in protection force of the sanctuary. They have mustered local support, which helps with the management.
6. The elephant corridor plan has been mapped on the basis of experience relating to the movements of elephants. This will help track down elephants and minimize human–elephant conflict.

Management Weaknesses

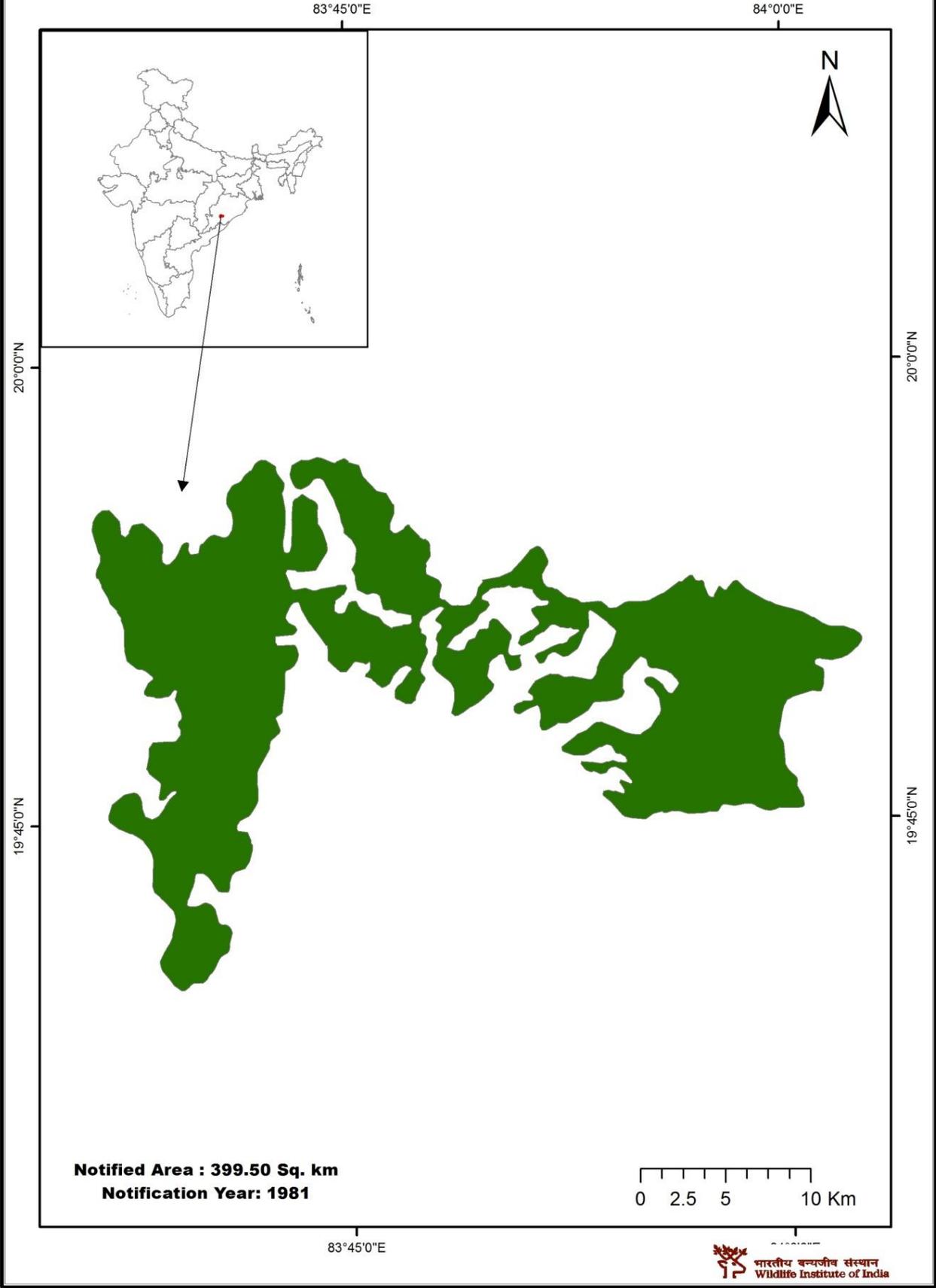
1. The presence of 65 revenue villages in the sanctuary, occupying nearly one third of the geographical area of the core, is a very big threat to conservation. Although some of these villages are covered by EDCs, a lot of effort needs to be put in to extend the coverage. Alternative livelihood options are to be provided to all the needy families in these 65 villages. In addition to these villages, there are several unauthorized encroachments in the sanctuary. They are all claiming titles under the Forest Rights Act. So far, 2172 cases have been granted, and the sword is still hanging over the Forest Department. The maps provided with the titles are simple polygons without reference points in the Forest Block marked. Quite often, the land occupied by the title holder on the ground does not tally with the map.
2. The forest–tribal interface in Kandhamal District gives rise to many conflicts. We are continuously losing forests, and the titles granted to the tribals are not linked with any development. The political leaders in the tribal hamlets decide the forest area to be cleared and crops to be grown. After clearing the trees, the men folk guard the area, and the women folk transport the cut wood, including firewood. Often, the forest protection forces are silent spectators.
3. Habitat development work, such as meadow/grassland development, is not provided for in the management plan. Thus such work has not been taken up. Mid-course correction of the plan may be necessary.
4. Podu cultivation is still in practice in many areas of the sanctuary.

Actionable Points

1. The water holes constructed in the hilly terrain of the sanctuary were found to be technically faulty. Proper dams/bunds are to be built to obstruct seasonal/perennial flow, with appropriate waste weirs for discharging the overflow. Raising bunds on the remaining three sides is not desirable as they will obstruct the inflow. Having terraces on all four sides is suitable for water holes on nearly flat ground, especially in villages. During our visit to a water hole in Dadang, in Tumulibundh Range, the above-mentioned fault was noticed. This was discussed on 22 June at Bhubaneswar with the CWLW, who promised to ensure that such faults do not recur.
2. Grassland development needs to be taken up near water holes to help conserve the ungulate population.
3. Local miscreants damage watch towers and lay the blame on Naxalites. There has to be a system of regular monitoring and repair of the damaged structures.
4. The protection staff of the Forest Department may be covered by insurance against attacks by wild animals/Naxalites.
5. The final notification of the sanctuary is pending with the state of Odisha. This may be expedited.
6. The core and buffer areas of the sanctuary are administered by three Range Forest Officers working under the territorial DFO. The focus on wildlife is lost at the division level. It would be proper to create a post of Assistant Conservator of Forests exclusively for the management of the sanctuary. The Assistant Conservator of Forests would report to the same DFO, which would help coordination.
7. Tiger reserves have “Tiger Foundations” as required under the provisions of the Wildlife (Protection) Act 1972. Thus even if the release of funds is delayed for some reason, payment of wages to the protection staff is not delayed. It is necessary to create a state-level trust for all wildlife sanctuaries and national Parks, where any donations of money can be parked and utilized for payment of wages and meeting other emergency expenditures. This will go a long way in helping conservation.

8. Starting fires in the forests is a regular practice among the tribals. They do this to clear the trees for podu cultivation. The Forest Department must put in adequate efforts to reverse this trend.
9. The management has sent a proposal to the Government of Odisha to relocate five villages, in which there are 75 families, from the core area of the sanctuary. The villages and families have been identified, and they have accepted the proposal, subject to proper compensation being awarded. The state may act on the proposal quickly.
10. Trained staff is an asset to the management. The staff should be trained in the use of modern wildlife management techniques, wildlife laws and handling modern equipment such as GPS, camera traps and range finders as well as documentation methodology.
11. Incentives and rewards should be initiated to boost the morale of the field staff. The staff should be sent to other PAs for interactions.
12. The universities of the state, institutes and NGOs should be encouraged to take up research and documentation in the PA, which is located in the Eastern Ghats.
13. There is great potential for ecotourism and nature tourism. These activities should be started to seek community support for conservation.

Kotagarh Wildlife Sanctuary



1. Context

1.1 Are the values of the site well documented, assessed and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Values not systematically documented, assessed or monitored.	Poor		Revised Management Plan for the period 2012-2021, Report of DFO	1. Eight Values of the Sanctuary are identified in Management Plan (Pages 161-162). These are Landscape Connectivity, Elephant Corridor, Biodiversity, Socio-Cultural-religious, Ethnobotanical etc. These values are documented and monitored in the division, as stated by DFO. No document was made available to confirm the monitoring.
Values generally identified but not systematically assessed and monitored.	Fair			
Most values systematically identified and assessed and monitored.	Good	✓		
All values systematically identified and assessed and monitored.	Very good			

*Values would also include geo-morphological, historico-cultural and faunal and floral species.

1.2 Are the threats to site values well documented and assessed?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats not systematically documented or assessed.	Poor		Revised Management Plan, DFO Report	1. The threats relating to forest and wildlife management are identified. The insurgency in the Sanctuary is the biggest threat and Forest staff do not find easy to take up patrolling at their will. (Page no.61 of the Management Plan)
Threats generally identified but not systematically assessed.	Fair			
Most threats systematically identified and assessed.	Good	✓		
All threats systematically identified and assessed.	Very good			

* This assessment should be based on number, nature and extent of threats. Threats within and outside PA should both be considered. Impacts, if any on the population abundance of key species may be indicated in the remarks.

1.3 Is the site free from human and biotic interference?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
The site has extensive human and biotic interference.	Poor		Revised Management plan and report of DFO	1. There are 65 villages in the core area of the sanctuary. These villages are predominantly of local tribe population. 2. The human population in the sanctuary consists of 2135 SCs, 10245 STs and 3467 others totaling up to 15847. 3. The size of household varies from 08 to 274. 4. All the villages have complete dependency on forests for grazing, firewood,
The site has some human and biotic interference.	Fair	✓		
The site has little human and biotic interference.	Good			
The site has no human and biotic interference.	Very good			

				MFP collection, timber requirement etc. 5. The local tribes have sacred grove where protection of forest is ensured by them. 6. In addition, these households have many cattle, which again put pressure on the forests.
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C*This assessment should be based on existence of human settlements/ villages; livestock grazing, cultivation, encroachments etc, resource extraction/ livelihood dependence of local communities and should reflect the overall interference due to all the above factors. Number and size of human settlements/ enclaved villages and their impacts on the site may be indicated in the Remarks.

2. Planning

2.1 Is the site properly identified (NP/WLS) and categorized (in terms of zonation) to achieve the objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not identified correctly or categorized.	Poor		Revised Management Plan, DFO report	1. The sanctuary was notified in December 1981 2. The entire PA is declared as core zone consisting of 399.5 Sq.Kms(269,5 Sq.Kms of 10 blocks of forests +129.99 SqKms of 65 revenue villages) 3. Buffer zone covering 2 to 10 kms around the sanctuary covering an area of 1254.218 sq .kms is proposed for notification. This Zone has 21 blocks of forest and remaining revenue villages. 4. The planning of all the zones viz, core , buffer, tourism. Elephant corridor and landscape have been incorporated in the revised management plan.
Site identified correctly but not categorized.	Fair			
Site identified correctly but not systematically categorized.	Good			
Site identified correctly and systematically categorized with proper zonation plans.	Very good	✓		

Management prescriptions for various zones (Core, Buffer, Tourism etc) may be carefully assessed.

2.2 Does the site have a comprehensive Management Plan?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No relevant Management Plan in place.	Poor		Revised approved Management plan and DFO report.	The old MP (2008-09 to 2017-18) was revised on WII guidelines and revised MP (2011-12 to 2020-21) was approved by CWLW, Odisha, which is now operational. 2 The concerns of stakeholders have been taken care through eco-development, eco-tourism, villagers participation in management etc..
Management Plan exist but not comprehensive.	Fair			
Site has a comprehensive Management Plan.	Good			
Site has a comprehensive, science based Management Plan prepared through a participatory process.	Very good	✓		

Is the Management Plan consistent with WII Guidelines or not? The extent to which the concerns of the stakeholders, if any have been incorporated in the Management Plan may be commented upon.

2.3 Is the Management Plan routinely and systematically updated?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No process in place for systematic review and update of Management Plan.	Poor		Revised MP and DFO report	The current management plan is operational since 2011-12. No updating has been made. However the efforts of the management will have to be appreciated, as they revised earlier plan during it's currency.
Management Plan sometimes updated in adhoc manner.	Fair	✓		
Management Plan routinely and systematically updated.	Good			
Management Plan routinely, systematically and scientifically updated through a participatory process.	Very good			

2.4 Does the site safeguards the threatened biodiversity values?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Sites does not safeguard the threatened biodiversity values.	Poor		Revised MP,DFO report and interaction with staff, NGOs	1. The theme plans have been prepared and being implemented as per revised MP. The safe guards include-Protection and improvement of habitat, reduction of dependency on forests through income generation of EDC, Patrolling camps, coordination with stake holders and govt. agencies.
Sites safeguards a few threatened biodiversity values.	Fair			
Sites safeguards a large number of threatened biodiversity values.	Good	✓		
Sites safeguards all threatened biodiversity values.	Very good			

* Remarks need to elaborate on the kind of safeguards and how they work or are intended to work

2.11 Are stakeholders given an opportunity to participate in planning?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little, if any opportunity for stakeholder participation in planning.	Poor		DFO report and documents, interaction with NGO, Panchayat, SDM, Baliguda	1. PA level coordination committee is constituted involving dist .administration, dist. Police administration, local NGO, Local doctor, Honorary wildlife warden and panchayat on date 2/4/2014. 2 Three NGOs are involved in planning and implementation of Eco-development Scheme, 3. Coordination with Panchayat in convergence of all dev. Schemes. 4. Involvement of EDC in Fire protection and anti-poaching measures, EPT construction, WHS development. 5. The draft management plan is not available in public domain.
Stakeholders participate in some planning.	Fair			
Stakeholders participate in most planning processes.	Good	✓		
Stakeholders routinely and systematically participate in all planning processes.	Very good			

* The result of participation must show in the field and not merely reported as a routine exercise. Further, is there a system/scope of putting the draft Management Plan in Public Domain in place?

2.6 Are habitat restoration programme systematically planned and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Habitat restoration programmes are entirely adhoc.	Poor		DFO report, APO of last 3 years, Field visits	1. Habitat management for Elephants in core and corridor has been carried out. Meadow development over 80 Ha is taken up, weed removal over 103 Ha, are carried out, although the same is not provided in Management Plan. It is reported that 17 waterbodies are created and renovated in last 3 years. There are technical faults in the construction of water bodies and CWLW has promised to correct the same. 2. Implementation of grass land development will have to be brought in next revision of Management plan. Other habitat improvement works are already provided. 3. The site selection of few water bodies should be on watershed basis and natural rivulets and streams should be dammed to impound water, duly providing waste weir for overflow. Construction of ponds by providing bunds all four sides is technically unsuitable for areas with slopes. 4. Weed removal in meadows will have to be implemented with more sincerity.
Limited planning and monitoring programmes are in place for habitat restoration.	Fair			
Habitat restoration programmes are generally well planned and monitored.	Good	✓		
Habitat restoration programmes are thoroughly planned and monitored.	Very good			

* This assessment should be primarily based on habitat management programmes in relation to habitats for species that are threatened (IUCN categories), are habitat specialists, subjected to seasonal movements, wide ranging with emphasis on the breeding and rearing habitat and may include factors such as food, water, shelter (all connotations). Habitat structure, composition, unique patches of vegetation and sensitive sites, sources of water and their distribution are integral. Corridors within buffer zone are critically important. For example, all riparian habitats. Have these been addressed? Is there a planning process in place? What is the extent of 'invasive species in the Site? Are there any measures to reduce/ remove them? Have these been successful?

2.7 Does the site have an effective protection strategy?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Site has no protection strategy.	Poor		DFO report, MP, discussion with field staff, Field and range office visits	.The PA has- 1. Ten anti-poaching gates at strategic locations. 2. One anti-poaching squad in each of three ranges in the jurisdiction of the sanctuary. Each squad consists of 10 local persons 3. One firefighting squad in each range is also provided for effective fire control. 4. The management has cultivated very good information network for protection of forests from illicit cutting and fire and wild animals from poaching. 5. Elephant anti depredation squad, anti-smuggling & anti-poaching squads are in place. EPT is also constructed in villages. 6. There is a coordination committee at DFO level to sort out issues with other line departments, panchayat raj institution and civil society.. 7. The terrain is undulating and presence of insurgency in the area hampers the implementation of all components mentioned above.
Site has an adhoc protection strategy.	Fair			
Site has a comprehensive protection strategy but is not very effective.	Good	✓		
Site has a comprehensive and very effective protection strategy.	Very good			

* This assessment takes *inter-alia* into account the nature of threats, the number and location of patrolling camps and foot and mobile patrolling, needs that relate to available manpower, terrain difficulties, practicability of area coverage, readiness to contain specific threats with necessary support and facilities. Is there any coordination with other wings of the Forest Department/ Police/ Customs etc? Are these effective?

2.8 Has the site been effective in the mitigation of human-wildlife conflicts?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Human-wildlife conflicts are rampant.	Poor		Interaction with SDM,APO,DF O report, Field Visit and community Interaction	1. The crop raiding by Elephants is manageable and does not create hue and cry in the public. As per APO the crop compensation paid in only TTumidibandha and Belghar ranges Year 2012-13 95000.00- Nil 13-14 131053 99198 14-15 42222780 5453 2. One human death in Belghar range outside PA has taken place and the compensation is paid as per state govt. norm. 3. Elephant habitat is good and very few incidence of movement of elephants outside the forest is reported. Most of the crop raiding was found to be inside the PA and in villages of core area. 4. The coordination with civil, police and other line depts. Is good.
Site has been able to mitigate few human-wildlife conflicts.	Fair			
Site has been able to mitigate many human-wildlife conflicts.	Good	✓		
Site has been able effective in mitigating all human-wildlife conflicts.	Very good			

* Judgment needs to consider staff training, capabilities, equipment, logistics, local attitude and politics (negatively aided and/or abetted), assistance of relevant agencies (e.g. police. Local administration, Local people themselves) PR, follow-up actions and monitoring. Details of compensation paid for human injury/ death and property damage in the last 3 year may be collected.

2.9 Is the site integrated into a wider ecological network landscape following the principles of the ecosystem approach?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not integrated into a wider network/ landscape.	Poor		Corridor Management Plan-Kotagarh-Chandrapur Elephant Corridor by R.C.Sethi,(2009) Revised Management plan, DFO report, Interaction with Dr.U.K.Das and Dr. C.Sar, Research officers attached to RCCF& PCCF offices.	1. Kootagarh-Chandrapur Corridor between Kotagarh—Lakhari Valley WLS covering two districts and four tehsils Total-217 Kms approx...is identified corridor for the movement of elephants. 2. The PA falls under Nayagarh-Andhra Pradesh landscape connectivity. 3. The corridor plans are yet to be included in working plan/ Forest Development Corporation Plans. 4. There is separate corridor development funding from state plan, which helps in ant depredation.
Some limited attempts to integrate the site into a network/ landscape.	Fair			
Site is generally quite well integrated into a network/ landscape.	Good	✓		
Site is fully integrated into a wider network/ landscape.	Very good			

* Assessment needs to consider the scope of opportunities on the landscape scale that exist. Consider whether any attempts have been made and what are these? Have all the important corridors been identified? What actions are planned /implemented for their security? Have the Forest Working Plans and Forest Development Corporation Plans within the identified landscapes taken cognizance of such new requirement? What kind of relationship exists with the District Administration and other Line Departments? Does the Site get any funds from these agencies?

3. Inputs

3.1 Are personnel adequate, well organized and deployed with access to adequate resources in the site?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Few, if any, personnel explicitly allocated for PA management.	Poor		MP, DFO Report, Field Visit, Interaction with field staff	1. There is no vacancy in front line staff at field level. 2. As PA is part of a territorial division, the staff also looks after other works. The focus on Wildlife is lost. It is suggested to create exclusive Wildlife subdivision under the control of Baliguda division. 3 Anti-poaching, anti-depredation squads are exclusive for the sanctuary. 4. Personnel are adequate as stated by DFO.
Some personnel explicitly allocated for PA management but not systematically linked to management objectives.	Fair			
Some personnel explicitly allocated towards achievement of specific management objectives.	Good	✓		
Adequate personnel explicitly allocated towards achievement of specific management objectives.	Very good			

* This assessment should *inter-alia* be based on number of personnel allocated for attainment of PA objectives at the Range , Round, Beat and Patrolling camps levels or as relevant to the needs (sanctioned posts *vis- a- vis* existing personnel and needs beyond the sanctioned strengths. It is possible that posts have last been sanctioned several years back that do not now account for the current needs)

3.2 Are resources (vehicle, equipment, building etc.) adequate, well organized and managed with access to adequate resources?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Few, if any, resources explicitly allocated for PA management.	Poor		MP, DFO report, Field visits	1. The patrolling is done in hired vehicles, It is better to provide Government vehicles, because of sensitivity of working on intelligence collection. 2. Watch towers, check gates, office infra-structures are in good condition. 3. Monitoring equipment like GPS, Field cameras and camera trap etc may be provided. 4. Training in modern day monitoring and documentation is required to Wildlife staff working in the sanctuary.
Some resources explicitly allocated for PA management but not systematically linked to management objectives.	Fair			
Some resources explicitly allocated towards achievement of specific management objectives.	Good	✓		
Adequate resources explicitly allocated towards achievement of specific management objectives.	Very good			

* These form a variety of resources. These may be segregated into immovable (structures) and movable categories and each further may be considered under the essential and desirable categories. It is best to start with what are the minimum needs to attain each objective, what is available and manner of use/deployment. The proportions of the 'essentials' and 'desirables' along the importance gradient of objectives would serve as pointers for score categories. Specific remarks would be vitally important.

3.3 Are resources (human and financial) linked to priority actions and are funds released timely?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Resource allocation is adhoc, funds are inadequate and seldom released in time and not utilized.	Poor		APO, DFO report	The three ranges Kotagarh, Tumudibandha and Belghar are in administrative jurisdiction of the sanctuary and receive funding from state and central plan. The fund release and utilization is timely. The following are the state and central plan funds received in the sanctuary 2012-13-State Plan-Rs.6329545.00, Central Plan-Rs.2464000.00 2013-14- SP-Rs.5121234.00 CP-Rs.7601234.00 2014-15 SP-Rs.5344143.00 CP-Rs.2295600.00
Some specific allocation for management of priority action. Funds are inadequate and there is some delay in release, partially utilized.	Fair			
Comprehensive planning and allocation that meets the most important objectives. Generally funds released with not much delay and mostly utilized.	Good			
Comprehensive planning and allocation of resources for attainment of most objectives. Funds generally released on-time and are fully utilized.	Very good	✓		

*Obtain details of funds released by MoEF and their utilization by site in the last 3 years and indicate them under 'Remarks'. Also comment on the problems associated with funds and their mitigation.

3.4 What level of resources is provided by NGOs?

Assessment criteria*				
Condition*	Category*	(Tick ✓)	Reference document(s)	Remarks
NGOs contribute nothing for the management of the site.	Poor		DFO report and interaction with NGOs.	1. The three NGOs namely PRDATA, IGASA and CYSD provide support for microplanning of EDC, Training and capacity building on income generation and SHG formation and forward linkage. 2. No NGO has provided any contribution in any form to this sanctuary.
NGOs make some contribution to management of the site but opportunities for collaboration are not systematically explored.	Fair	✓		
NGOs contributions are systematically sought and negotiated for the management of some site level activities.	Good			
NGOs contributions are systematically sought and negotiated for the management of many site level activities.	Very good			

Details of contributions(cash/kind) made by the NGOs in the last 3 years may be collected.

3.5 Does PA manager considers resources (human and financial) to be sufficient?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Resources insufficient for	Poor		DFO report,	1. DFO says that three multipurpose vehicles

most tasks.			Interaction with field staff	and 6 two wheelers needed for patrolling. Once these vehicles are provided, the hiring of private vehicles will be suspended. 2. Communication and monitoring equipment, modern soft wares for computerization, wildlife health care, tranquillization equipment and field survey documentation are required for tackling any emergency in the sanctuary.
Resources sufficient for some tasks.	Fair	✓		
Resources sufficient for most tasks.	Good			
Resources are in excess for most tasks.	Very good			

4. Process

4.1 Does the site have trained manpower resources for effective PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Very few trained officers and frontline staff in the site.	Poor		DFO report, Interaction with field staff.	1. One Forest Guard and two Foresters are trained in tranquillization. 2. The local level trainings are conducted for staff on tiger, Elephant and general census. 3. The daily wage staff work in squads established for fighting illicit felling, poaching, fire and depredation of elephants. These personnel require regular training.
Few trained officers and frontline staff, who are posted in the site.	Fair	✓		
A large number of trained officers and frontline staff are posted in the site.	Good			
All trained managers and frontline staff posted in the site.	Very good			

* Indicate % of trained staff in various categories. i.e. Higher Management: ACF/ DCF/ CF/ CCF; Frontline Staff: Range Officer; Beat Officer; Forest Guard; Casual Daily Labour (CDL); Others.

4.2 Is PA staff performance management linked to achievement of management objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No linkage between staff performance management and management objectives.	Poor		DFO report, Interaction with staff.	1. 26 Forest guards and 13 Foresters, who worked in the sanctuary, have been recently promoted. 2. One Forest Guard, who has singlehandedly rescued a Barking deer, is recommended for award. 3. Field staff are staying in their designated quarters, despite the presence of Naxalites in the area.
Some linkage between staff performance management and management objectives, but not consistently or systematically assessed.	Fair			
Performance management for most staff is directly linked to achievement of relevant management objectives.	Good	✓		
Performance management of all staff is directly linked to achievement of relevant management objectives.	Very good			

*Has the PA staff received award/ appreciation from any agency in the last 3 years?

4.3 Is there effective public participation in PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no public participation in PA management.	Poor		DFO report, Interaction with	1. Community participates whenever their services are

Opportunistic public participation in some aspects of PA management.	Fair	✓	staff and field visits.	requisitioned.. They come forward on their own in emergency situations like passing on intelligence, extinguishing fire etc. 2.The local villagers participate in census etc.
Systematic public participation in most aspects of PA management.	Good			
Comprehensive and systematic public participation in all important aspects of PA management.	Very good			

* Participation would include Conservation & awareness programmes, Census operations, Intelligence gathering, Forest fire control etc.

4.4 Is there a responsive system for handling complaints and comments about PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic approach to handling complaints.	Poor		DFO report, Range and field office visits	1. Complaint and suggestion boxes are placed in offices. 2. Complaint register is maintained and action initiated is recorded and reviewed.. .3. There is no quarry asked through RTI in last three years.
Complaints handling system operational but not responsive to individual issues and limited follow up provided.	Fair			
Coordinated system logs and responds effectively to most complaints.	Good	✓		
All complaints systematically logged in coordinated system and timely response provided with minimal repeat complaints.	Very good			

* Number of queries made and response thereof under the Right to Information (RTI), Act in the last 3 years may be compiled.

4.5 Does PA management address the livelihood issues of resource dependent communities especially of women?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No livelihood issues are addressed by PA management.	Poor		DFO report, field visit and interaction with villagers	1. The PA is preparing Eco-Development plans with the help of NGOs. 8 plans have been prepared and others are in pipeline. 2. The training on income generation and livelihood are being conducted through hand holding of NGOs. 3. The marketing of local produce is being carried out with NGOs. 4. The women were trained and provided with sewing machine in 8 EDC.
Few livelihood issues are addressed by PA management.	Fair			
Substantial livelihood issues are addressed by PA management.	Good	✓		
Livelihood issues of resource dependent communities especially women are addressed effectively by PA managers.	Very good			

5. Output

5.1 Is adequate information on PA management publicly available?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference	Remarks

			document(s)	
Little or no information on PA management publicly available.	Poor		DFO report, Office visits.	1. There is no separate web site of the sanctuary. However, informations pertaining to the sanctuary is included in the state wildlife web site 2. Brochures, handbills, signage in local languages are printed.
Publicly available information is general and has limited relevance to management accountability and the condition of public assets.	Fair	✓		
Publicly available information provides detailed insight into major management issues for most PAs or groups of PAs.	Good			
Comprehensive reports are routinely provided on management and condition of public assets in all PAs or groups of PAs.	Very good			

* Does the Site has a website? If yes, is it comprehensive, well-managed and periodically updated?

5.2 Are visitor services (tourism and interpretation) and facilities appropriate for the relevant protected area category?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Visitor services and facilities are at odds with relevant PA category and/or threaten PA values.	Poor		DFO report, Field visits, Visit to rest houses.	1. Forest rest houses with all relevant facilities are available in PA. 2. There is potential for eco-tourism and nature tourism with many wilderness sites in the sanctuary. 3. An Interpretation center in Belghar range with proper display is available. 3. However tourists have not visited the sanctuary during last three years because of Naxalite activities and Kandhamal riots.
Visitor services and facilities generally accord with relevant PA category and don't threaten PA values.	Fair	✓		
All visitor services and facilities accord with relevant PA category and most enhance PA values.	Good			
All visitor services and facilities accord with relevant PA category and enhance PA values.	Very good			

* Include the existence and quality of visitor and interpretation centers, including skills and capabilities of personnel manning these, site related publications, films, videos; arrangements of stay (including places serving refreshments and food owned and managed by site), watch towers and hides including safety factors, vehicles assigned for visitors including riding elephants, if any and their deployment, drinking water, rest rooms, garbage disposal, attended and self guided services in the field, visitor feed back on the quality of wilderness experience. Details of numbers of visitors/ tourists(both domestic and overseas) coming in the last 3 years and the revenue earned may be compiled.

5.3 Are research/ monitoring related trends systematically evaluated and routinely reported and used to improve management?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no systematic evaluation or routine reporting of trends.	Poor		DFO report, Interaction with RCCF, interaction with Dr.U.K.Das and Dr. S.K.Sar, Research Officers attached to state and RCCF office.	1. The departmental research team has produced reports on landscape connectivity, spatial distribution of elephants and corridor of Elephants involving PA. 2. The PA has documented sacred groves, list of Butterfly and distribution pattern of herbivores. 3. The PA conducts census of Elephants, Tigers and co-predators. 4. No university or organization is involved in research and documentation. 5. The newspapers have covered the activities like cattle immunization camps, medical camps, EDC activities.
Some evaluation and reporting undertaken but neither systematic nor routine.	Fair			
Systematic evaluation and routine reporting of management related trends undertaken.	Good	✓		
Systematic evaluation and comprehensive reporting of trends undertaken and attempts made at course corrections as relevant.	Very good			

* Not all site attract projects and researchers and with exceptions, little research takes place on the site own steam because of systemic limitations. However, monitoring of some critical issues is expected e.g. population of tiger, co-predators and prey with insights into their demography and distribution (some opportunistic sampling by sightings, signs and spatial distribution during assessment would be extremely useful in terms of expert impression and as a pulse), monitoring incidence of livestock grazing, fires, weeds, sources of water, a variety of illegal activities typically associated with the reserve, wildlife health (e.g. epidemics, immunization of livestock) regeneration and change in vegetation, visitors and their activities, offence cases, ex-gratia payments etc. Details of number of research projects in the last 3 years, institutions involved, salient outcomes may be collected and used in awarding scores.

5.4 Is there a systematic maintenance schedule and funds in place for management of infrastructure/assets?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic inventory or maintenance schedule.	Poor		APO, DFO report, visits	1. The fund was provided for maintenance of 8.1 Kms road and purchase of one marshal vehicle for the sanctuary.in last three years. 2. The Infra-structure support is inadequate and should be strengthened.
Inventory maintenance is ad hoc and so is the maintenance schedule.	Fair	✓		
Systematic inventory provides the basis for maintenance schedule but funds are inadequately made available.	Good			
Systematic inventory provides the basis for maintenance schedule and adequate funds are made available.	Very good			

6. Outcomes

6.1 Are populations of threatened species especially key faunal species declining, stable or increasing?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threatened/ endangered species populations declining.	Poor		DFO report, Field visit, interaction with field staff and local villagers	1. The PA conducts census for elephants, tigers, predators and collects direct and indirect evidences. 2. Register is maintained in RO & DFO offices 3. The population of Elephants increased from 17 to 34 in three years. The presence of one tiger and 4 Leopards was recorded in 2013-14 censuses. Sloth Bear are found in good numbers. 4. The Field staff, patrolling staff and villagers confirmed the presence of Chital, Barking Deer, Sambar, Porcupine, Malabar giant squirrel, pangolin in PA. 5. Elephants, Sloth bear and other prey species are increasing, as found during enquiry with staff and villagers.
Some threatened/ endangered species populations increasing, most others stable.	Fair			
Most threatened/ endangered species populations increasing, most others stable.	Good	✓		
All threatened/ endangered species populations either increasing or stable.	Very good			

* This needs to practically relate to the natural ecosystem potential rather than being driven merely by numbers and visibility. The assessment score may be elaborated under remarks. Comments on the population trends may be made under Remarks.

6.2 Have the threats to the site being reduced/ minimized or is there an increase?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats to the Site have not abated but have enhanced.	Poor		MP, DFO report, Field staff interaction, field visits	1. The management of sanctuary is impacted by Naxalites. The staff could not patrol the jungle at their will. 2. The threats on poaching of wild animals, firefighting, habitat destruction etc are being tackled by EDCs and community participation, and there is very little success 3. There is a small beginning of education and awareness in controlling Podu cultivation. 4. Rights of settlement under FRA is completed and 2172 titles are issued covering 5696.55 acres of land in 54 villages. However some cases, which are rejected, are still under review. The sword is still hanging on Forest department.
Some threats to the Site have abated, others continue their presence	Fair	✓		
Most threats to the Site have abated. The few remaining are vigorously being addressed	Good			
All threats to the Site have been effectively contained and an efficient system is in place to deal with any emerging situation	Very good			

6.3 Are the expectations of visitors generally met or exceeded?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Expectations of visitors generally not met.	Poor		DFO report, Field visit.	1. There is no visitor to the sanctuary due to fear of insurgency. However local school students visit the Interpretation center during wildlife week.
Expectations of many visitors are met.	Fair	✓		
Expectations of most visitors are met.	Good			
Good expectations of most visitors are met.	Very good			

* Is there any system of receiving/ analyzing visitor feedback?

6.4 Are local communities supportive of PA management?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Local communities are hostile.	Poor		Field visits, Interaction with villagers, community leaders	1. Local community is supportive of PA management because of eco-Development initiatives, income generation activities and employment generation of local youths through PA management. 2. The hand holding mechanism through NGOs in income generation and in marketing of local products have increased the credibility of PA.
Some are supportive.	Fair			
Most locals are supportive of PA management.	Good	✓		
All local communities supportive of PA management.	Very good			

* There could be many reasons for disenchantment. It could be real because of managerial neglect or the managerial efforts could be appropriate but there could be local elements/organizations who would like to keep the dis-affectation simmering for their own ulterior motives. Likewise success could be entirely because of the efforts of managers or they might be fortunate in striking partnerships with credible NGOs. Assessment may take the prevailing causes into account.

MEE Score Card

Framework Element Number	Framework Element Name	Number of Questions (a)	Maximum Mark per question (b)	Total (a x b)	Marks obtained for the Element	Overall Score
1.	Context	03	10	30	20	68.33%
2.	Planning	09	10	90	70	
3.	Inputs	05	10	50	35	
4.	Process	05	10	50	32.5	
5.	Outputs	04	10	40	22.5	
6.	Outcomes	04	10	40	25	
Total		30		300	205	

8. LAKHARI VALLEY WILDLIFE SANCTUARY, ODISHA

MEE Year (2015-16)

Management Strengths

1. Although there are no statutory compulsions, the state of Odisha has declared an area of 371 km² around the core area of the sanctuary a buffer area because of its commitment to mainstreaming wildlife concerns. An extent of 118 km² of this buffer is forest area, and the rest consists of villages, generally situated on the eastern boundary of the sanctuary. There is scope to form EDCs in these villages, which may help conservation in due course.
2. Four EDCs have already been formed in villages in the core area of the sanctuary. These EDCs cover all six revenue villages in the core area. A non-formal education programme in these villages is supported by the Forest Department. Several other income-generating activities are also supported by the EDCs.
3. The sanctuary provides the catchment area of three rivers, namely the Rama, Ghodaghat and Bahuda. There are three dams, one on each of the three rivers, have been constructed for which serve the purpose of generating hydroelectric power and for irrigation. Livelihood is also available to fishermen in adjoining villages on the eastern boundary.
4. The biological diversity of the sanctuary is rich, which is a very strong reason for providing protection.
5. The sanctuary is connected to forest areas in the important elephant corridor between Kalahandi and Raigarh. Thus, there is scope for the resident elephants of the sanctuary to migrate. The location of the sanctuary is also useful for the movements of carnivores.
6. Most of the field staff, including women members, are young, energetic and motivated. They are fit enough to take up aggressive patrolling and deal with smugglers and poachers. It is the responsibility of the DFO, ACF and RFO to maintain the fitness of the staff. It is necessary to organize regular drills, running, climbing hills and other physical exercises so as to keep them fit.

Management Weaknesses

1. Apart from six revenue villages, the core area of the sanctuary has 30 unauthorized villages, in which nearly 500 families live. They cultivate encroached forest land. Eighty-one titles were granted under the Forest Rights Act recently in eight of the unauthorized villages. The cattle of these families graze in the sanctuary. Illegal removal of trees, hunting and left-wing extremism make the protection more difficult. This leads to degradation of the habitat and is an impediment to conservation.
2. There are delays in the release of funds, which in turn delays the payment of wages to the protection staff. This results in a lack of enthusiasm for protection.
3. Habitat improvement works such as grassland/meadow development are not provided for in the management plan. Thus, these have not been undertaken.
4. Settlement of rights under the Forest Rights Act is in progress, in which the Forest Department has a very limited role to play. Illegal encroachers have a tendency to clear more forests and occupy more area for titles.
5. The entire sanctuary is under the administrative control of a Range Forest Officer, who works under a territorial DFO. The coordination issues have been properly sorted out, but at the level of the forest division, the focus on wildlife has been lost.
6. The field staff are not trained in wildlife management, monitoring and legal issues.
7. The infrastructure for wildlife monitoring and protection needs to be improved further.

Actionable Points

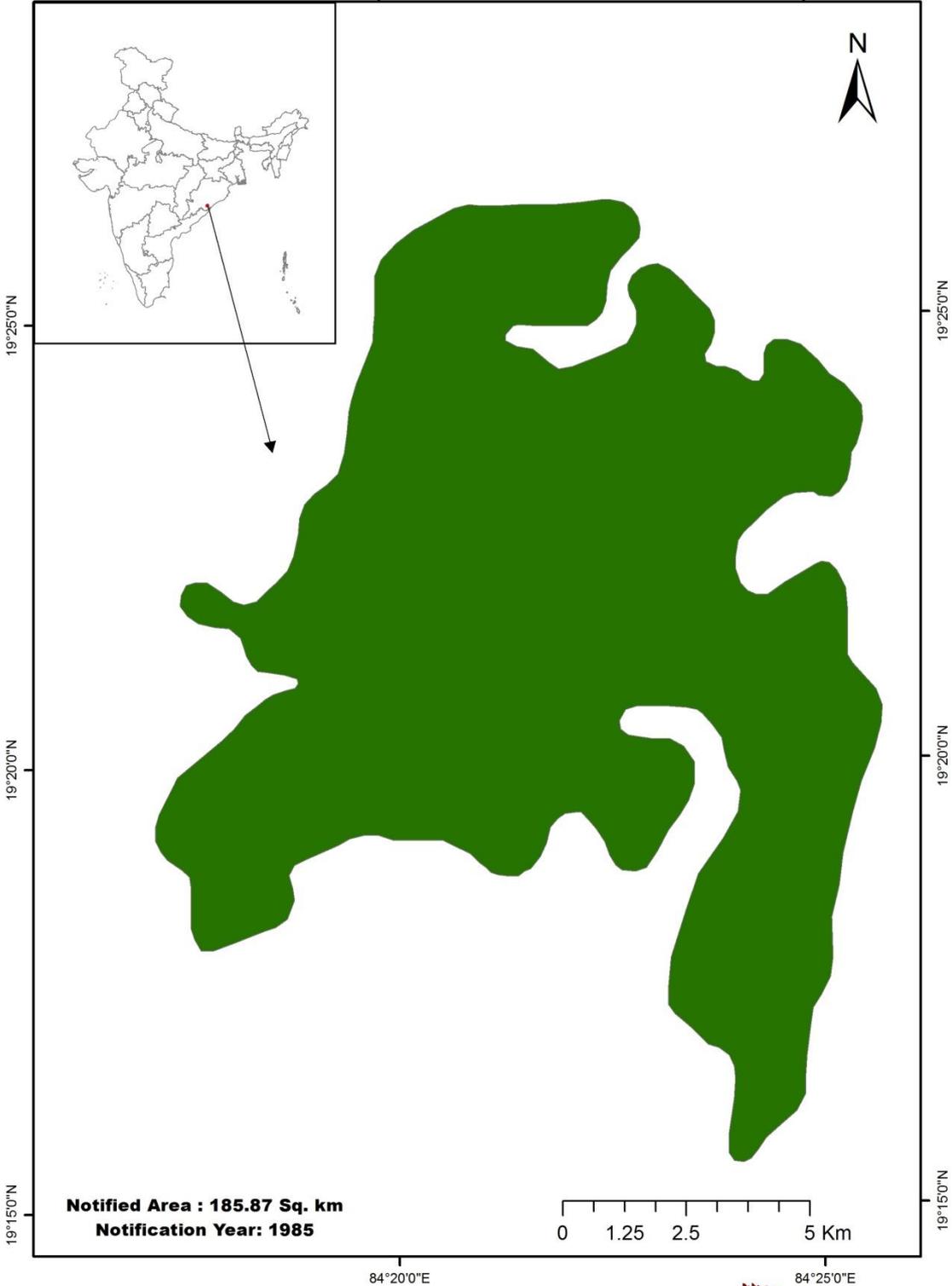
1. Many roads in the core area of the sanctuary need to be repaired. It is learnt that Naxalites may not object to these repairs as the people residing in the sanctuary want the roads to be improved.
2. Grassland development needs to be taken up close to water holes for conservation of the ungulate population.
3. Timely release of funds may be ensured so that wages are paid to the protection staff on time. This is likely to enhance their performance.
4. The management plan of the sanctuary envisages that Rs.14 crore is to be spent on the conservation of this sanctuary during the plan period of 10 years. This will help establish conservation plots for research on the biodiversity of the area, create meadows, provide support to the EDCs in minimizing the dependence on forests, provide equipment such as GPS and camera traps, etc. This should be prioritized.
5. Not many research papers have been published on the forests and biodiversity of areas in the Eastern Ghats.
6. Sometimes the staff members of the sanctuary are ill-equipped as regards winter clothing, raincoats, boots/gumboots, etc. The CWLW should ensure that these facilities are provided to the staff. The monitoring wildlife and the transport facilities provided for patrolling should be on par with tiger reserves.

7. Borrow pits were found to have been excavated on the sides of the forest roads for providing earth for maintenance. Spreading fresh earth on these roads before the monsoon makes them slushy. It is advised that the earth excavated from the side drains be spread on the road and heavy rollers be employed to compact it.
8. Water holes constructed in the hilly terrain of the sanctuary were found to be technically faulty. Proper dams/bunds are to be provided to obstruct the perennial/seasonal flow with appropriate waste weirs for discharging the overflow. Putting up bunds on the other three sides is not desirable as it obstructs the inflow. Providing terraces on all four sides is suitable only for ponds on nearly flat ground, especially in villages.
9. The final notification of the sanctuary is pending with the state of Odisha. The notification may be expedited.
10. . It is better to create a post of ACF Wildlife. This officer can be given exclusive control of the sanctuary and buffer area and may be asked to report to same DFO, in the interest of coordination.
11. The management plan should be updated according to the present requirements and approved. Wildlife management planning, corridor and landscape connectivity planning, providing enhanced visitor services through ecotourism and nature tourism and climate change planning are also suggested.
12. The constitution of the steering committee at the state level and the coordination committee at the DFO level should be according to the Wildlife Protection Act 1972.
13. A wildlife trust should be created for all the sanctuaries of the state so that there is better fund flow and assistance is received from other agencies. The funds can be utilized for all emergency services and timely payment of wages to the protection staff.

Lakhari Valley Wildlife Sanctuary

84°20'0"E

84°25'0"E



 भारतीय वन्यजीव संस्थान
Wildlife Institute of India

1. Context

1.1 Are the values of the site well documented, assessed and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Values not systematically documented, assessed or monitored.	Poor		Management Plan is for the period 2011-12 to 2020-21, which is being followed. However, local management could not produce records suggesting that the Plan is approved by the competent Authority.	The management plan has identified many values without providing proper description. This can be referred in appendix of MP. The PA is significant in- 1.Landscape connectivity(Eastern Ghat landscape) 2. a major corridor of Elephants 3.Very rich habitat and flora. 4.Rich biodiversity including Mouse deer, Malabar giant squirrel, Elephants 5. Watershed of two major rivers. 6.Presence of religious sites
Values generally identified but not systematically assessed and monitored.	Fair	✓		
Most values systematically identified and assessed and monitored.	Good			
All values systematically identified and assessed and monitored.	Very good			

*Values would also include geo-morphological, historico-cultural and faunal and floral species.

1.2 Are the threats to site values well documented and assessed?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats not systematically documented or assessed.	Poor		Management Plan, field visit and interaction with concerned persons.	Threats are identified (Pages 29-32)of MP .Insurgency, grazing, unregulated MFP collection, encroachment etc are major threat. Elephant depredation is on the increase. Tigers are not reported in any of the estimation exercise in the past. However, threats outside PA are not properly dealt.
Threats generally identified but not systematically assessed.	Fair			
Most threats systematically identified and assessed.	Good	✓		
All threats systematically identified and assessed.	Very good			

* This assessment should be based on number, nature and extent of threats. Threats within and outside PA should both be considered. Impacts, if any on the population abundance of key species may be indicated in the remarks.

1.3 Is the site free from human and biotic interference?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
The site has extensive human and biotic interference.	Poor	✓	Management Plan, Field visit	6 nos. of revenue villages and 36 nos of encroachment villages; consisting of 535 Household and approx.. 2510 population of tribal. 31 families in encroached villages are
The site has some human and biotic interference.	Fair			

The site has little human and biotic interference.	Good			provided with land title under FRA and many more applications are pending at various stages for grant of title. Complete dependency of the villagers on sanctuary forest for grazing, livelihood and sustenance. Besides this, there are many more villages on the fringes, which exert undue pressure on the sanctuary.
The site has no human and biotic interference.	Very good			

*This assessment should be based on existence of human settlements/ villages; livestock grazing, cultivation, encroachments etc, resource extraction/ livelihood dependence of local communities and should reflect the overall interference due to all the above factors. Number and size of human settlements/ enclaved villages and their impacts on the site may be indicated in the Remarks.

2. Planning

2.1 Is the site properly identified (NP/WLS) and categorized (in terms of zonation) to achieve the objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not identified correctly or categorized.	Poor		Management Plan, Appendices-4,5,6.	Although there is no statutory compulsion, the policy of the state to notify buffer Zone surrounding the sanctuary, is a welcome step. The entire sanctuary is declared as core. These Zones are identified and categorized as follows; 1.core zone-174.95 Sq.Kms (entire sanctuary) 2,Buffer zone-371 Sq.Kms(10 kms around) 3.Tourism zone-117.084 Sq.Kms(except central part of PA)
Site identified correctly but not categorized.	Fair			
Site identified correctly but not systematically categorized.	Good	✓		
Site identified correctly and systematically categorized with proper zonation plans.	Very good			

Management prescriptions for various zones (Core, Buffer, Tourism etc) may be carefully assessed.

2.2 Does the site have a comprehensive Management Plan?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No relevant Management Plan in place.	Poor		Management Plan	The MP is prepared on WII guideline and concern of stake holders have been incorporated in the form of Eco-Development and eco-tourism initiatives. The programme and budget have been proposed. However state Government has not made sufficient budget available as per plan. The plan is under operation pending approval.
Management Plan exist but not comprehensive.	Fair			
Site has a comprehensive Management Plan.	Good	✓		
Site has a comprehensive, science based Management Plan prepared through a participatory process.	Very good			

Is the Management Plan consistent with WII Guidelines or not? The extent to which the concerns of the stakeholders, if any have been incorporated in the Management Plan may be commented upon.

2.3 Is the Management Plan routinely and systematically updated?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No process in place for systematic review and update of Management Plan.	Poor	✓	Discussion with PCCF, Wildlife and DFO, Paralakhemundi forest Division	No review and updating of Management Plan has been taken up so far.
Management Plan sometimes updated in adhoc manner.	Fair			
Management Plan routinely and systematically updated.	Good			
Management Plan routinely, systematically and scientifically updated through a participatory process.	Very good			

2.4 Does the site safeguards the threatened biodiversity values?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Sites does not safeguard the threatened biodiversity values.	Poor		Management plan, Interaction with DFO and field visit	The site safeguards large number of threatened biodiversity values 1. protection through squads-6 nos inside PA and 4 nos in buffer 2. Habitat Management including grassland 3. Fire management through EDC 4. Creation of water holes through Water harvesting structures. 5. Seeking community support through eco development and eco-tourism
Sites safeguards a few threatened biodiversity values.	Fair			
Sites safeguards a large number of threatened biodiversity values.	Good	✓		
Sites safeguards all threatened biodiversity values.	Very good			

* Remarks need to elaborate on the kind of safeguards and how they work or are intended to work

2.12 Are stakeholders given an opportunity to participate in planning?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little, if any opportunity for stakeholder participation in planning.	Poor		MP, interaction with villages, NGOs, Community leaders	Livelihood planning and eco-development plan preparation through NGOs and community participation are in vogue. Hony. Wildlife warden supports in anti-poaching operations and elephant anti depredation works. The draft management plan is not available in public domain.
Stakeholders participate in some planning.	Fair			
Stakeholders participate in most planning processes.	Good	✓		
Stakeholders routinely and systematically participate in all planning processes.	Very good			

* The result of participation must show in the field and not merely reported as a routine exercise. Further, is there a system/scope of putting the draft Management Plan in Public Domain in place?

2.6 Are habitat restoration programme systematically planned and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Habitat restoration programmes are entirely adhoc.	Poor		MP, records from DFO and field visit.	The PA comprise of forests of Sal and its associates. The bamboo and other palatable species. Including native grasses constitute the habitat. Elephants being the flagship species in this PA. The water holes created suffer from technical infirmities. Water pond design for plain land is implemented in hilly areas, which is incorrect. What is required is to obstruct the perineal source of water with proper waste weir and clean up all the inflows. The grasslands are not maintained. The plantation raised in core and buffer areas are of teak, Cassia samia, Acacia auriculiforms, Eucalyptus etc, which are unpalatable to wild animals. Thus Plan needs regular updating for wildlife management. Lantana and Eupatorium are mostly on the fringes. The weed removal programme is being implemented with little success.
Limited planning and monitoring programmes are in place for habitat restoration.	Fair	✓		
Habitat restoration programmes are generally well planned and monitored.	Good			
Habitat restoration programmes are thoroughly planned and monitored.	Very good			

* This assessment should be primarily based on habitat management programmes in relation to habitats for species that are threatened (IUCN categories), are habitat specialists, subjected to seasonal movements, wide ranging with emphasis on the breeding and rearing habitat and may include factors such as food, water, shelter (all connotations).Habitat structure, composition, unique patches of vegetation and sensitive sites, sources of water and their distribution are integral. Corridors within buffer zone are critically important. For example, all riparian habitats. Have these been addressed? Is their a planning process in place? What is the extent of 'invasive species in the Site? Are there any measures to reduce/ remove them? Have these been successful?

2.7 Does the site has an effective protection strategy?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Site has no protection strategy.	Poor		MP Interaction with staff & DFO, Field visit	The PA has undulating terrain with steep valleys and hills. Nearly 60% area is not accessible by road. 1. Patrolling is done through 10 (6 in core +4 in buffer) protection squads in core & buffer. 2. Foot patrolling in core is also planned and followed 3. Presence of insurgency is a very big impediment for the movement of staff. 4. The strength of field staff is adequate. 5. The cooperation is sought from dist. and police department on emergencies. There is no coordination committee exclusive for PA.
Site has an adhoc protection strategy.	Fair			
Site has a comprehensive protection strategy but is not very effective.	Good	✓		
Site has a comprehensive and very effective protection strategy.	Very good			

* This assessment takes *inter-alia* into account the nature of threats, the number and location of patrolling camps and foot and mobile patrolling, needs that relate to available manpower, terrain difficulties, practicability of area coverage, readiness to contain specific threats with necessary support and facilities. Is there any coordination with other wings of the Forest Department/ Police/ Customs etc? Are these effective?

2.8 Has the site been effective in the mitigation of human-wildlife conflicts?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Human-wildlife conflicts are rampant.	Poor		Interaction with DFO, Field staff and Field visit	1. Crop compensation payment is regular. 2. Two incident of injuries/death reported in 2015 outside PA (Buffer zone). Compensation payment is in the process. 3. EDCs are partly functional, but are found to be cooperative. 4. Local administration also extends cooperation. 5. The infra-structure support exclusively for this PA is inadequate.
Site has been able to mitigate few human-wildlife conflicts.	Fair			
Site has been able to mitigate many human-wildlife conflicts.	Good	✓		
Site has been able effective in mitigating all human-wildlife conflicts.	Very good			

* Judgment needs to consider staff training, capabilities, equipment, logistics, local attitude and politics (negatively aided and/or abetted), assistance of relevant agencies (e.g. police. Local administration, Local people themselves) PR, follow-up actions and monitoring. Details of compensation paid for human injury/ death and property damage in the last 3 year may be collected.

2.9 Is the site integrated into a wider ecological network landscape following the principles of the ecosystem approach?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not integrated into a wider network/ landscape.	Poor		Management Plan, Interaction with RCCF, Berhampur, DFO & field staff, NGOs, Dr.U.K.Das and Dr.Chanchal Sar, Research officer with RCCF,Berhampur.	1. The PA is part of greater landscape connectivity from Chhattisgarh to Andhra Pradesh of Eastern Ghat. 2. Efforts are being made to identify and map the connectivity from RCCF office, Berhampur. 3The PA has the connectivity with Berhampur Forest Division through Belapada beat to Ghodahada dam and Gaida forest for Elephant movement and carnivore movement. 4. PA is also connected to Ghumusur South forest division with hills & valleys. Elephant and carnivore movements are recorded. 5. The PA is also used by migratory birds and local migratory fruit bats. 6. The corridors are under the process of identification and conservation strategy in working plans, EDC and dist. Plans are yet to be brought out.
Some limited attempts to integrate the site into a network/ landscape.	Fair			
Site is generally quite well integrated into a network/ landscape.	Good	✓		
Site is fully integrated into a wider network/ landscape.	Very good			

* Assessment needs to consider the scope of opportunities on the landscape scale that exist. Consider whether any attempts have been made and what are these? Have all the important corridors been identified? What actions are planned/implemented for their security? Have the Forest Working Plans and Forest Development Corporation Plans within the identified landscapes taken cognizance of such new requirement? What kind of relationship exists with the District Administration and other Line Departments? Does the Site get any funds from these agencies?

3. Inputs

3.1 Are personnel adequate, well organized and deployed with access to adequate resources in the site?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Few, if any, personnel explicitly allocated for PA management.	Poor		Interaction with DFO, Field staff, DFO office report	1. There is no exclusive management of PA by a Wildlife division/ subdivision. It is the part of a territorial Forest Division, Paralekhemundi. The Chandragiri Range falls under the sanctuary. This range manages the sanctuary with one range officer, one forester and 18 FGs. There is no vacancy as per sanctioned post. Sorting out coordination issues is big advantage for the sanctuary being part of a territorial division, however the focus on wildlife will be better addressed if sanctuary is managed exclusively in a Wildlife subdivision/ division.
Some personnel explicitly allocated for PA management but not systematically linked to management objectives.	Fair			
Some personnel explicitly allocated towards achievement of specific management objectives.	Good	✓		
Adequate personnel explicitly allocated towards achievement of specific management objectives.	Very good			

* This assessment should *inter-alia* be based on number of personnel allocated for attainment of PA objectives at the Range , Round, Beat and Patrolling camps levels or as relevant to the needs (sanctioned posts *vis- a- vis* existing personnel and needs beyond the sanctioned strengths. It is possible that posts have last been sanctioned several years back that do not now account for the current needs)

3.2 Are resources (vehicle, equipment, building etc.) adequate, well organized and managed with access to adequate resources?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Few, if any, resources explicitly allocated for PA management.	Poor	✓	Report from DFO, Ranges and visit to ranges and field.	1 Range office is well equipped with computer facility. 2. There is no exclusive vehicle for patrolling. Field accessories like camera, GPS, Range Finder etc. are wanting. No monitoring equipment are not available for field staff.
Some resources explicitly allocated for PA management but not systematically linked to management objectives.	Fair			
Some resources explicitly allocated towards achievement of specific management objectives.	Good			
Adequate resources explicitly allocated towards achievement of specific management objectives.	Very good			

* These form a variety of resources. These may be segregated into immovable (structures) and movable categories and each further may be considered under the essential and desirable categories. It is best to start with what are the minimum needs to attain each objective, what is available and manner of use/deployment. The proportions of the 'essentials' and 'desirables' along the importance gradient of objectives would serve as pointers for score categories. Specific remarks would be vitally important.

3.3 Are resources (human and financial) linked to priority actions and are funds released timely?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Resource allocation is adhoc, funds are inadequate and seldom released in time and not utilized.	Poor		APOs, DFO and Field staff interaction	Central Plan 2011-12—Revalidated-Rs.336000.00 2012-13-Rs.2485000.00 2013-14-Rs.2281000.00 2014-15-Rs.2506700.00 The fund releases are delayed, and the management has to get it revalidated. Also the fund is not sufficient for priority items like protection ,habitat augmentation ,water facility etc.
Some specific allocation for management of priority action. Funds are inadequate and there is some delay in release, partially utilized.	Fair	✓		
Comprehensive planning and allocation that meets the most important objectives. Generally funds released with not much delay and mostly utilized.	Good			
Comprehensive planning and allocation of resources for attainment of most objectives. Funds generally released on-time and are fully utilized.	Very good			

*Obtain details of funds released by MoEF and their utilization by site in the last 3 years and indicate them under 'Remarks'. Also comment on the problems associated with funds and their mitigation.

3.4 What level of resources is provided by NGOs?

Assessment criteria*

Condition*	Category*	(Tick ✓)	Reference document(s)	Remarks
NGOs contribute nothing for the management of the site.	Poor		DFO report and field visit observation	Three NGOs namely LIPICA, IGASA and ALC INDIA are associated with EDC micro plan preparation, Livelihood promotion, SHG formation and capacity building for villagers. There is no NGO involved on researches, documentation, awareness creation or any other issues relating to forests and wildlife.
NGOs make some contribution to management of the site but opportunities for collaboration are not systematically explored.	Fair	✓		
NGOs contributions are systematically sought and negotiated for the management of some site level activities.	Good			
NGOs contributions are systematically sought and negotiated for the management of many site level activities.	Very good			

Details of contributions(cash/kind) made by the NGOs in the last 3 years may be collected.

3.5 Does PA manager considers resources (human and financial) to be sufficient?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Resources insufficient for most tasks.	Poor		DFO report, Interaction in the field.	The human resource is more or less ok but financial resource is meager. More fund is required for monitoring, habitat improvement and other wildlife management intervention, patrolling etc.
Resources sufficient for some tasks.	Fair	✓		
Resources sufficient for most tasks.	Good			
Resources are in excess for most tasks.	Very good			

4. Process

4.1 Does the site have trained manpower resources for effective PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Very few trained officers and frontline staff in the site.	Poor	✓	Interaction with DFO, field staff and field visit	The Range officer has four years' experience of working in Simlipal Tiger reserve. One FG is trained in crocodile breeding. There is no formal wildlife trained staff. There is one Vet. Doctor attached with Deer Park of the Forest department located at TaptaPani..
Few trained officers and frontline staff, who are posted in the site.	Fair			
A large number of trained officers and frontline staff are posted in the site.	Good			
All trained managers and frontline staff posted in the site.	Very good			

* Indicate % of trained staff in various categories. i.e. Higher Management: ACF/ DCF/ CF/ CCF; Frontline Staff: Range Officer; Beat Officer; Forest Guard; Casual Daily Labour (CDL); Others.

4.2 Is PA staff performance management linked to achievement of management objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No linkage between staff performance management and management objectives.	Poor		MP, DFO report and field visit	The staff posted In PA (Chadragirirange) is engaged in various management functions like Patrolling, habitat Management, EDC activities and monitoring .One FG got appreciation for rescue of sloth bear cub.
Some linkage between staff performance management and management objectives, but not consistently or systematically assessed.	Fair			
Performance management for most staff is directly linked to achievement of relevant management objectives.	Good	✓		
Performance management of all staff is directly linked to achievement of relevant management objectives.	Very good			

*Has the PA staff received award/ appreciation from any agency in the last 3 years?

4.3 Is there effective public participation in PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no public participation in PA management.	Poor		Interaction with stake holders, DFO report, Field visit,	Dr.A.Ramkar, Hony. Wildlife warden and Panchayats are involved in awareness creation, and assisting management in anti-smuggling/ poaching drive. EDC are also involved in fire control..
Opportunistic public participation in some aspects of PA management.	Fair			
Systematic public participation in most aspects of PA management.	Good	✓		
Comprehensive and systematic public participation in all important aspects of PA management.	Very good			

* Participation would include Conservation & awareness programmes, Census operations, Intelligence gathering, Forest fire control etc.

4.4 Is there a responsive system for handling complaints and comments about PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic approach to handling complaints.	Poor		Range visit, DFO and staff interaction	The complaint and suggestion boxes are available in range offices, Mostly verbal complaints and are taken care off. There is no coordinated approach of dealing with written complaints, as no connected documents were produced by the management.
Complaints handling system operational but not responsive to individual issues and limited follow up provided.	Fair	✓		
Coordinated system logs and responds effectively to most complaints.	Good			
All complaints systematically logged in coordinated system and timely response provided with minimal repeat complaints.	Very good			

* Number of queries made and response thereof under the Right to Information (RTI), Act in the last 3 years may be compiled.

4.5 Does PA management address the livelihood issues of resource dependent communities especially of women?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No livelihood issues are addressed by PA management.	Poor		Field visit, interaction with EDC, NGOs and forest staff	The micro plans of EDCs have addressed the issue. The women livelihood activities have been initiated. NGOs are involved in handholding process.
Few livelihood issues are addressed by PA management.	Fair			
Substantial livelihood issues are addressed by PA management.	Good	✓		
Livelihood issues of resource dependent communities especially women are addressed effectively by PA managers.	Very good			

5. Output

5.1 Is adequate information on PA management publicly available?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no information on PA management publicly available.	Poor		DFO interaction and state gov. sites on internet	1. The PA has no web site. 2. The information on PA is available on state web sites of forest dept. and tourism dept. 3. Some brochures were printed by the management..
Publicly available information is general and has limited relevance to management accountability and the condition of public assets.	Fair	✓		
Publicly available information provides detailed insight into major management issues for most PAs or groups of PAs.	Good			
Comprehensive reports are routinely provided on management and condition of public assets in all PAs or groups of PAs.	Very good			

* Does the Site has a website? If yes, is it comprehensive, well-managed and periodically updated?

5.2 Are visitor services (tourism and interpretation) and facilities appropriate for the relevant protected area category?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Visitor services and facilities are at odds with relevant PA category and/or threaten PA values.	Poor	✓	DFO report and interaction with staff	1. There is no visitor facility in PA. 2. Taptapani, which is also tourist attraction on account of sulphur bath, has good tourist facility run by tourism dept. It can also cater the need for the visitors in the sanctuary. 3. Insurgency is responsible for lesser tourism in the area. Some visitors do not like to take chances. 4. Three religious sites in PA attract local visitors. 5. The area has tremendous scope for eco-tourism and nature tourism.
Visitor services and facilities generally accord with relevant PA category and don't threaten PA values.	Fair			
All visitor services and facilities accord with relevant PA category and most enhance PA values.	Good			
All visitor services and facilities accord with relevant PA category and enhance PA values.	Very good			

* Include the existence and quality of visitor and interpretation centers, including skills and capabilities of personnel manning these, site related publications, films, videos; arrangements of stay (including places serving refreshments and food owned and managed by site), watch towers and hides including safety factors, vehicles assigned for visitors including riding elephants, if any and their deployment, drinking water, rest rooms, garbage disposal, attended and self guided services in the field, visitor feed back on the quality of wilderness experience. Details of numbers of visitors/ tourists(both domestic and overseas) coming in the last 3 years and the revenue earned may be compiled.

5.3 Are research/ monitoring related trends systematically evaluated and routinely reported and used to improve management?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no systematic evaluation or routine reporting of trends.	Poor		DFO report and interaction with RCCF office.	1. The PA conducts Elephant census and tiger census during state surveys. 2. Assessment of fauna and flora is provided in the management Plan. 3. The protection squads also report about the wildlife presence and habitat information to Range officer. 4. Research officers are available at state level as well as circle level. Although their jurisdiction is vast, yet they carry out documentation on elephant corridor and connectivity and research other important issues having state wide ramification.
Some evaluation and reporting undertaken but neither systematic nor routine.	Fair	✓		
Systematic evaluation and routine reporting of management related trends undertaken.	Good			
Systematic evaluation and comprehensive reporting of trends undertaken and attempts made at course corrections as relevant.	Very good			

* Not all site attract projects and researchers and with exceptions, little research takes place on the site own steam because of systemic limitations. However, monitoring of some critical issues is expected e.g. population of tiger, co-predators and prey with insights into their demography and distribution (some opportunistic sampling by sightings, signs and spatial distribution during assessment would be extremely useful in terms of expert impression and as a pulse), monitoring incidence of livestock grazing, fires, weeds, sources of water, a variety of illegal activities typically associated with the reserve, wildlife health (e.g. epidemics, immunization of livestock) regeneration and change in vegetation, visitors and their activities, offence cases, ex-gratia payments etc. Details of number of research projects in the last 3 years, institutions involved, salient outcomes may be collected and used in awarding scores.

5.4 Is there a systematic maintenance schedule and funds in place for management of infrastructure/assets?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic inventory or maintenance schedule.	Poor		DFO report and field visit	Funds provided are inadequate and wildlife concern in core and buffer are not addressed adequately.
Inventory maintenance is adhoc and so is the maintenance schedule.	Fair	✓		
Systematic inventory provides the basis for maintenance schedule but funds are inadequately made available.	Good			
Systematic inventory provides the basis for maintenance schedule and adequate funds are made available.	Very good			

6. Outcomes

6.1 Are populations of threatened species especially key faunal species declining, stable or increasing?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threatened/ endangered species populations declining.	Poor		DFO reports ,Field visits and interaction with field staff, treckers.	1. There is no census done for herbivores. 2. The elephant population estimation h=shoe trend on increasing side from 16 to 21 in five years. 3. As per field staff, Sambhar and sloth bear population is increasing and visible everywhere in PA. 4..Villagers confirm the presence of mouse deer, pangolin and Malabar giant squirrel 5. A vast area of sanctuary is inaccessible and there is no village inside.
Some threatened/ endangered species populations increasing, most others stable.	Fair	✓		
Most threatened/ endangered species populations increasing, most others stable.	Good			
All threatened/ endangered species populations either increasing or stable.	Very good			

* This needs to practically relate to the natural ecosystem potential rather than being driven merely by numbers and visibility. The assessment score may be elaborated under remarks. Comments on the population trends may be made under Remarks.

6.2 Have the threats to the site being reduced/ minimized or is there an increase?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats to the Site have not abated but have enhanced.	Poor		DFO report, interaction with villagers and staff.	1. The initiation of EDC activities on income generation, crop development, marketing and forward linkages of MFP have increased the local community participation in protection and help in management to some extent 2. The insurgency is the biggest threat to PA, which is beyond the scope of the Forest Department. 3. Human and cattle population in core and buffer is ever increasing threat to the sanctuary.
Some threats to the Site have abated, others continue their presence	Fair	✓		
Most threats to the Site have abated. The few remaining are vigorously being addressed	Good			
All threats to the Site have been effectively contained and an efficient system is in place to deal with any emerging situation	Very good			

6.3 Are the expectations of visitors generally met or exceeded?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Expectations of visitors generally not met.	Poor	✓	DFO report	The tourism in the PA is low key due to insurgency. However it has the great potential to develop visitor services through eco and nature tourism.
Expectations of many visitors are met.	Fair			
Expectations of most visitors are met.	Good			
Good expectations of most visitors are met.	Very good			

* Is there any system of receiving/ analyzing visitor feedback?

6.4 Are local communities supportive of PA management?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Local communities are hostile.	Poor		Field visit, Interaction with EDC, Villagers, Panchayat representatives	Most of the locals are supportive of PA management. The EDC management, timely compensation payment, involvement of panchayats, Vet care of cattle etc. are some of the major initiatives, which has attracted local communities.
Some are supportive.	Fair			
Most locals are supportive of PA management.	Good	✓		
All local communities supportive of PA management.	Very good			

* There could be many reasons for disenchantment. It could be real because of managerial neglect or the managerial efforts could be appropriate but there could be local elements/organizations who would like to keep the dis-affectation simmering for their own ulterior motives. Likewise success could be entirely because of the efforts of managers or they might be fortunate in striking partnerships with credible NGOs. Assessment may take the prevailing causes into account.

MEE Score Card

Framework Element Number	Framework Element Name	Number of Questions (a)	Maximum Mark per question (b)	Total (a x b)	Marks obtained for the Element	Overall Score
1.	Context	03	10	30	15	55.8%
2.	Planning	09	10	90	60	
3.	Inputs	05	10	50	25	
4.	Process	05	10	50	30	
5.	Outputs	04	10	40	17.5	
6.	Outcomes	04	10	40	20	
Total		30		300	167.5	

10. KAPILASH WILDLIFE SANCTUARY, ODISHA

MEE Year (2016-17)

Management Strengths

1. The sanctuary is situated along with other forests of Dhenkanal Division. Together with these forests it provides connectivity between two important Tiger reserves, Simlipal and Satkosia, of the state of Odisha. Of course, the connectivity to Simlipal is through Hathgarh Sanctuary.
2. The forests of the sanctuary are in the catchment of the River Brahmani. It must be protected at all costs.
3. A 125 km² area of the sanctuary is contiguous, barring only two villages inside, which were ringed out at the time of notification. The two villages are Bania and Kolha. But the sanctuary is surrounded by many villages.
4. Transmission lines going through the forest division are potential threats of electrocution of Elephants and other wild animals. NTPC has started laying cables for transmission of power, and some of the transmission lines are likely to be replaced by cables in due course. This may reduce the instances of illegal drawing of power by some farmers, which may reduce the electrocution of wild animals.
5. The communities in some villages offer prayers to Elephants. One such village is Sarisapada, situated on the fringe of the sanctuary, in which the villagers do not claim compensation or ex gratia payment for damage inflicted by wild Elephants. The attitude and mind set of the people are positive, which should be utilized to spread the message of conservation in other villages.
6. All the rectangular water ponds created are along the periphery of the sanctuary where the area is gently sloping. There is water scarcity in remote areas of the higher slopes in summer. The management has been taking up the construction of a series of check dams using loose boulders across the streams originating from the tops of the hills. This is a very good initiative that should be continued for many such streams originating from the tops of the hills.
7. There is a system of stopping the traffic on NH 55 near Gadasila and Meromandoli villages, of Dhenkanal Range, to allow Elephants to cross the road. Also, there is a practice of sending messages to the railway control room at Khurda, which responds favourably and slows down the trains at a particular hour, whenever Elephants cross the railway line.

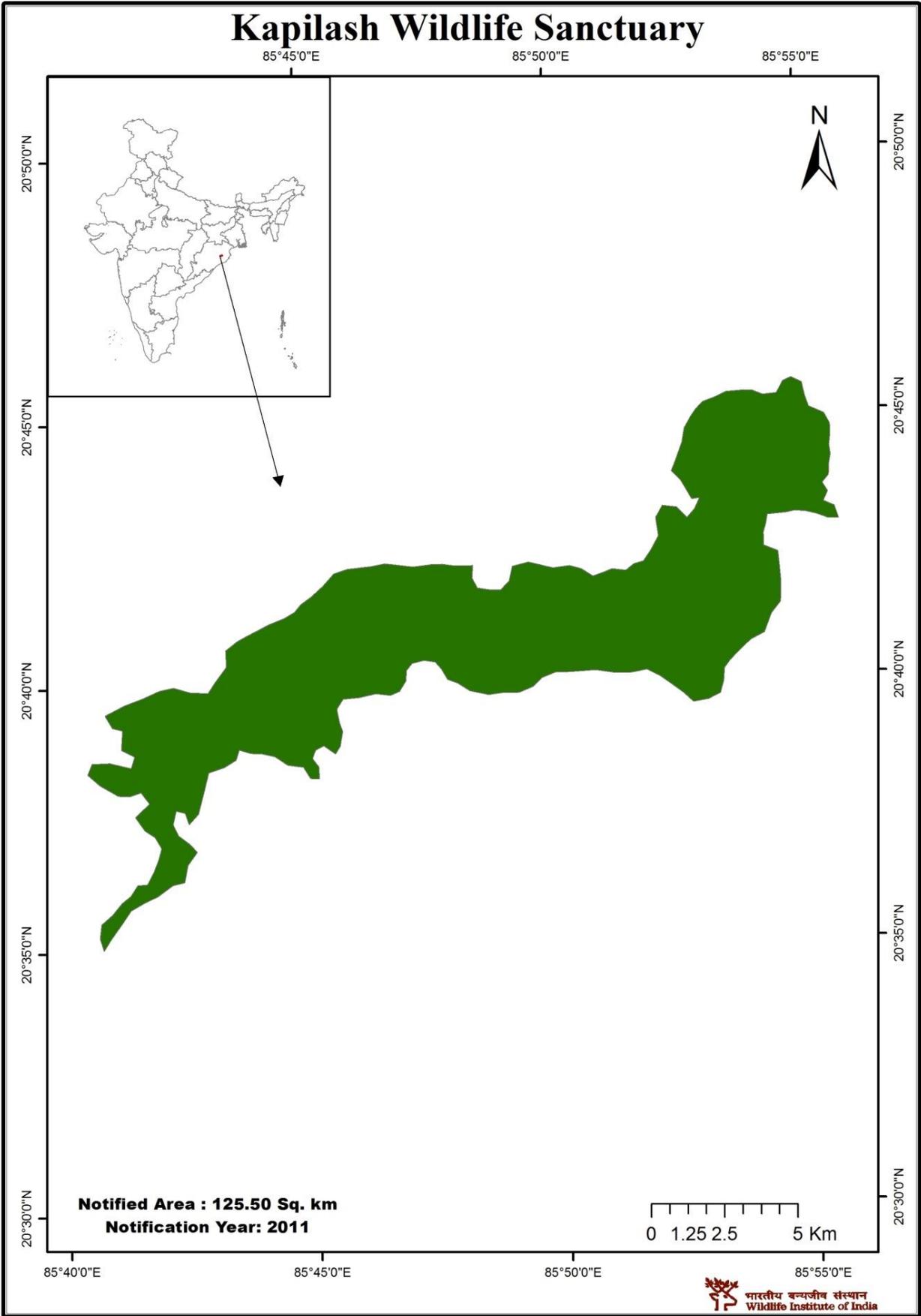
Management Weaknesses

1. The communities in the villages surrounding the sanctuary are heavily dependent on forests. They extract timber, firewood, poles and grasses from the sanctuary. Cattle are also found grazing in the sanctuary in large numbers. The regeneration of the forests is threatened.
2. Water holes and salt licks created in the sanctuary are also used by domestic cattle visiting the sanctuary. Foot and mouth disease is likely to be transmitted to wild animals because of this.
3. Regali canals (Canals under the Regali Project on the Brahmani) all over Dhenkanal District have fragmented the corridors of Elephants and other wild animals. Power Industries in Dhenkanal and Hindol ranges have also added to the fragmentation. Heavy traffic on NH 55 and rail traffic on the Cuttack–Talcher line have made matters worse. This has resulted in intense human–wild Elephant conflict over the last 7–8 years. This has impacted the lives of wild animals in the sanctuary. As if this were not enough, another railway line is coming up between Talcher and Sukinda. Stage I clearance has already been granted under the Forest (Conservation) Act, 1980.
4. A large numbers of collieries in Talcher and several power Industries in Dhenkanal and Hindol ranges have been polluting the River Brahmani.
5. There is a serious threat of poaching of Elephants for tusks in Hindol Range. The area is adjacent to Attagarh Forest Division, where many poachers reside.
6. The sanctuary management is spread over three ranges of Dhenkanal Division. In addition to the sanctuary, the three Range Forest Officers have to manage the Reserve Forest areas also. However, the Foresters and Forest Guards have exclusive jurisdiction over the sanctuary. The posts of one Forester and two Beat Guards in the sanctuary are vacant. However, the management has employed 25 daily wage watchers for protection duty as well as for anti-depredation of wild Elephants.
7. The staff members working in the sanctuary have not been provided training in subjects related to wildlife management.

Actionable Points

1. Some ecodevelopment works are being carried out in the fringe villages, but this is not enough. During the visit to Ramkrishnapur village, in Dhenkanal Range, it was found that the villagers do not have LPG connections and depend upon the sanctuary for their fire wood requirements. It is high time that the dependence of the communities on the forests is reduced.

2. SMC works of check dams and gully plugs should be attempted in areas on steep slopes. This is the only method of storing water in remote areas. The construction of rectangular water ponds of dimensions 40 m × 30 m × 3 m will only work in gently sloping areas. Several such water ponds have been constructed on the fringes of the sanctuary and close to habitations. This will draw wild animals to the fringes of the sanctuary and will be a cause of increased conflict.
3. The team visited a bamboo plantation raised in 2016–2017 in two blocks of extent 15 ha and 5 ha in the sanctuary, near Kolha village. Growing plantations in wildlife areas is very difficult. No fencing has been provided this year and as a result all the bamboo seedlings are browsed. Even village cattle are found to be roaming in this plantation. More sincere attempt should be made in growing such plantations.
4. More underpasses across NH 55 and the railway line should be considered. The structures provided for elephants to cross the canals should be modified after doing some experimental research appropriately to best facilitate elephant movement.
5. Industries and collieries should be prevented from discharging untreated flows into the River Brahmani.
6. Vacancies should be filled up and the staff members working in the sanctuary should be provided short training programmes on subjects related to wildlife management.



1. Context

1.1 Are the values of the site well documented, assessed and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Values not systematically documented, assessed or monitored.	Poor		Para 1.3 of Management plan (MP) of Kapilash Wildlife sanctuary, Dhenkanal District 2013-14 to 2022-23 Appendix-1 of MP Pages - 102 to 104	The statement of Significance on page-06 of MP indicates that the area is hilly and interspersed with plain land, rock & cliff. The hill is famous for presence of Lord Chandrasekhar at the top, which attracts several pilgrims. The biodiversity of Kapilash contain variety of medicinal plants, butterflies & enchanting Forest area, which offers great scope for developing dynamic biodiversity conservation in human dominated landscape. The list of values of Sanctuary is enumerated in appendix 01 of MP. The following are the values; Biological values showing endangered plants & animals, such as presence of Elephant, leopard, sloth bear, pangolin, Mouse deer, wolf, etc. Ecological values as the forests of the sanctuary being in Mahanadi River basin. Physical attributes with rock features Medicinal values Religious value due to Kapilash temple etc.
Values generally identified but not systematically assessed and monitored.	Fair			
Most values systematically identified and assessed and monitored.	Good	✓		
All values systematically identified and assessed and monitored.	Very good			

*Values would also include geo-morphological, historico-cultural and faunal and floral species.

1.2 Are the threats to site values well documented and assessed?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats not systematically documented or assessed.	Poor		Para-3.12 page -31 of MP	The summery of threats is listed in Para 3.12. Some of the threats are reproduced as under; Sagging electric lines due to improper maintenance resulting in electrocution of elephants Farmers drawing illegal power from overhead electric lines to protect agriculture field. This, sometimes results in electrocution of elephants & other wild animals. Water scarcity during summer
Threats generally identified but not systematically assessed.	Fair			
Most threats systematically identified and assessed.	Good	✓		
All threats systematically identified and assessed.	Very good			

				months Forest fire Poaching & hunting of wild animals for meat Disturbance for wild animals in the Sanctuary due to traffic on major roads passing through it. Presence of illegal arms Cattle from the villages in and around sanctuary. Habitat destruction by villagers for their fuel, timber as well as for lively hood Existence of weeds.
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* This assessment should be based on number, nature and extent of threats. Threats within and outside PA should both be considered. Impacts, if any on the population abundance of key species may be indicated in the remarks.

1.3 Is the site free from human and biotic interference?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
The site has extensive human and biotic interference.	Poor		Appendix-47 Page- 180 of MP	There are 307 villages in & around sanctuary, which includes two villages namely Kolha & Bania being the enclosures in the notified sanctuary. The sanctuary extends over 03 districts & number of villages in each of districts is shown below; Dist. Village Dhenkanal 184 Cuttack 100 Jajpur 23 Thus, the site has some extensive human & Biotic interference. The live stock dependent on the sanctuary is shown in the table below the Para.
The site has some human and biotic interference.	Fair	✓		
The site has little human and biotic interference.	Good			
The site has no human and biotic interference.	Very good			

*This assessment should be based on existence of human settlements/ villages; livestock grazing, cultivation, encroachments etc, resource extraction/ livelihood dependence of local communities and should reflect the overall interference due to all the above factors. Number and size of human settlements/ enclaved villages and their impacts on the site may be indicated in the Remarks.

1. Number of livestock of villages in and around Protected Area:-

Sl. No.	Village	Live stock population						Total
		Bullock	Cow	Calf	Heifer	Goat	Sheep	
1	2	3	4	5	6	7	8	9
1	Sorisiapada	12	27	15	10	102	-	166
2	Bhanragoda	49	23	19	08	86	-	185
3	Bania	131	147	85	94	463	04	924
4	Similia	48	43	38	15	60	10	214
5	Ragadisahi	30	58	29	26	31	-	174
6	Kurumatangar	420	422	127	205	672	45	1891
7	Achhanda	415	410	125	207	680	40	1877

8	Khajuria	407	442	120	212	639	43	1863
9	Sankhua	413	414	127	205	669	41	1869
	G.Total	1925	1986	685	982	3402	183	9163

2. Planning

2.1 Is the site properly identified (NP/WLS) and categorized (in terms of zonation) to achieve the objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not identified correctly or categorized.	Poor		Appendix-05 Page No.125 of MP	The zones are constituted by Compartments & shown in appendix -05. Entire 125.5 Sq Kilometer area of the sanctuary in core zone. The area within 10 KM of radius is the buffer Zone of the sanctuary. The statement in the appendix is shown in table below this para.
Site identified correctly but not categorized.	Fair			
Site identified correctly but not systematically categorized.	Good	✓		
Site identified correctly and systematically categorized with proper zonation plans.	Very good			

Management prescriptions for various zones (Core, Buffer, Tourism etc) may be carefully assessed.

Sl. No.	Zone category	Area in Sq. Kms.	Compartment No.	Remarks
1	Core Zone	125.50	1 to 4 of Dhenkanal Range, 5 to 23 & 27 of Kapilash Range, 24 to 26 & 28 of Sadangi Range	Entire area of the Sanctuary
2	Buffer Zone			Covers an extent of 10 Kms. of radius from the boundary of the protected area
3	Administrative Zone			This zone overlaps both Core and Buffer Zone area

2.2 Does the site have a comprehensive Management Plan?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No relevant Management Plan in place.	Poor		MP	The sanctuary has MP for the period 2012-13 to 2022-23, which is also approved by CWLW, Odisha, Bhubaneswar vide his Memo No.6827/3-WL-224/2014 dt.06.09.2014
Management Plan exist but not comprehensive.	Fair			
Site has a comprehensive Management Plan.	Good	✓		
Site has a comprehensive, science based Management Plan prepared through a participatory process.	Very good			

Is the Management Plan consistent with WII Guidelines or not? The extent to which the concerns of the stakeholders, if any have been incorporated in the Management Plan may be commented upon.

2.3 Is the Management Plan routinely and systematically updated?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No process in place for systematic review and update of Management Plan.	Poor			Management Plan has been recently updated. It is in operation from the year 2013-14. Usually these Plans are for ten years and there is no system of updating it during it's currency. However, if there is any urgency to implement any particular scheme in the Sanctuary, it is implemented with prior approval of Chief Wild Life Warden.
Management Plan sometimes updated in adhoc manner.	Fair	✓		
Management Plan routinely and systematically updated.	Good			
Management Plan routinely, systematically and scientifically updated through a participatory process.	Very good			

2.4 Does the site safeguards the threatened biodiversity values?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Sites does not safeguard the threatened biodiversity values.	Poor			The MP lays down the objective of safeguarding all threatened biodiversity species. Elaborate strategies are drawn chapter -06 of MP.
Sites safeguards a few threatened biodiversity values.	Fair			
Sites safeguards a large number of threatened biodiversity values.	Good	✓		
Sites safeguards all threatened biodiversity values.	Very good			

* Remarks need to elaborate on the kind of safeguards and how they work or are intended to work

2.13 Are stakeholders given an opportunity to participate in planning?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little, if any opportunity for stakeholder participation in planning.	Poor		Para 6.4.9 page 61 & 62 of MP	The stake holders are provided several opportunities for planning the labor intensive works through EDCs. Some of the EDCs have shown positive
Stakeholders participate in some planning.	Fair	✓		
Stakeholders participate in most planning processes.	Good			
Stakeholders routinely and systematically participate in all planning processes.	Very good			

				response. One EDC, Harekrushnapur (Bana sarankhyna samiti) has been honoured with Bijupattnaik award for exemplary contribution in forest protection & wildlife conservation in the year 2015-16
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* The result of participation must show in the field and not merely reported as a routine exercise. Further, is there a system/scope of putting the draft Management Plan in Public Domain in place?

2.6 Are habitat restoration programmes systematically planned and monitored?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Habitat restoration programmes are entirely adhoc.	Poor		Page 60 & 61 Para-6.4.7 of MP	The following strategies are adopted to improve the habitat for animals. (a)Improvement of meadows and grass land (b) Eradication of weeds (c) Development of water bodies & water harvesting structure. (d) Development of salt licks. (e) Soil & moisture conservation.
Limited planning and monitoring programmes are in place for habitat restoration.	Fair			
Habitat restoration programmes are generally well planned and monitored.	Good	✓		
Habitat restoration programmes are thoroughly planned and monitored.	Very good			

* This assessment should be primarily based on habitat management programmes in relation to habitats for species that are threatened (IUCN categories), are habitat specialists, subjected to seasonal movements, wide ranging with emphasis on the breeding and rearing habitat and may include factors such as food, water, shelter (all connotations).Habitat structure, composition, unique patches of vegetation and sensitive sites, sources of water and their distribution are integral. Corridors within buffer zone are critically important. For example, all riparian habitats. Have these been addressed? Is their a planning process in place? What is the extent of 'invasive species in the Site? Are there any measures to reduce/ remove them? Have these been successful?

2.7 Does the site have an effective protection strategy?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Site has no protection strategy.	Poor		Para-6.4 Page-54 to 60 of MP	Strategies to control illicit felling of trees, poaching, creation of anti poaching & anti smuggling squads, controlling movement through check post, repairing roads causeway & culverts, for better mobility, providing communication network, fire protection plan, controlling encroachments of forest land, control of collection of NWFP items, Control of grazing and pasture development, controlling illegal quarry operation etc.
Site has an adhoc protection strategy.	Fair			
Site has a comprehensive protection strategy but is not very effective.	Good	✓		
Site has a comprehensive and very effective protection strategy.	Very good			

* This assessment takes *inter-alia* into account the nature of threats, the number and location of patrolling camps and foot and mobile patrolling, needs that relate to available manpower, terrain difficulties, practicability of area coverage, readiness to contain specific threats with necessary support and facilities. Is there any coordination with other wings of the Forest Department/ Police/ Customs etc? Are these effective?

2.8 Has the site been effective in the mitigation of human-wildlife conflicts?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Human-wildlife conflicts are rampant.	Poor		Discussion with DFO & verification of records	Kapilash sanctuary is managed by territorial DFO, Dhenkanal. The Division has eight ranges & all ranges are infested with Wild elephants. The forests are fragmented across the Division & there have been several industries established in elephant movement corridors during past one decade. The development of industries in Hindol & Denkanal ranges has increased the conflict. During the same period construction of irrigation canal in the division has made the matter worse. Elephants herd crossing NH55 & Cuttack Talcher Railway line is very common and management has to be alert in handling it. These efforts are also documented. Further some of the forests of the Division including Kapilash
Site has been able to mitigate few human-wildlife conflicts.	Fair			
Site has been able to mitigate many human-wildlife conflicts.	Good	✓		
Site has been able effective in mitigating all human-wildlife conflicts.	Very good			

				<p>sanctuary is in migratory route of elephant between Similipal & Satakosia. Nearly a dozen human death inflicted by elephants and almost the same number of elephant deaths are reported annually for past five-six years in Dhenkanal division.</p> <p>The compensation paid for elephant & human death in respect of Kapilash sanctuary, which is 15% of all forests of Dhenkanal division, is shown in the table below this Para</p>
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Year of Depredation	Crop Damage			House Damage	Human Kill			Human Injury		Death of Elephant
	No of cases	Area (in Ac)	Amount Paid (in Rs)	No	Amount Paid (in Rs)	No	Amount Paid (in Rs)	No	Amount Paid (in Rs)	No
1	2	3	4	5	6	7	8	9	10	11
2014-15	205	66.8192	7,60,432.00	-	-	-	-	-	-	(One)01 (Female) 60 years & 1 (Male Baby)= 2 nos.
2015-16	91	26.3316	2,75,371.00	-	-	01 (by wild Boar)	3,00,000.00	-	-	-
2016-17	160	25.6507	2,61,256.00	-	-	01 (by elephant)	3,00,000.00	-	-	2 (One adult Female 30 years & 05 years calf)
Total	456	118.8015	12,97,059.00			02	6,00,000.00			03

* Judgment needs to consider staff training, capabilities, equipment, logistics, local attitude and politics (negatively aided and/or abetted), assistance of relevant agencies (e.g. police. Local administration, Local people themselves) PR, follow-up actions and monitoring. Details of compensation paid for human injury/ death and property damage in the last 3 year may be collected.

2.9 Is the site integrated into a wider ecological network landscape following the principles of the ecosystem approach?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Site not integrated into a wider network/ landscape.	Poor		Verification of records.	The sanctuary is part of Dhenkanal territorial Division. The working plan of Division provides a detail chapter on conservation & management wildlife in overlapping working circle. Further the Division has to focus on Wildlife management in view of increased conflicts with Human. The Division also provides connectivity for long ranging wild animals between Satakosia & Similipal via Hadagada sanctuary of Keonjhar Wildlife division.
Some limited attempts to integrate the site into a network/ landscape.	Fair			
Site is generally quite well integrated into a network/ landscape.	Good	✓		
Site is fully integrated into a wider network/ landscape.	Very good			

* Assessment needs to consider the scope of opportunities on the landscape scale that exist. Consider whether any attempts have been made and what are these? Have all the important corridors been identified? What actions are planned/ implemented for their security? Have the Forest Working Plans and Forest Development Corporation Plans within the identified landscapes taken cognizance of such new requirement? What kind of relationship exists with the District Administration and other Line Departments? Does the Site get any funds from these agencies?

3. Inputs

3.1 Are personnel adequate, well organised and deployed with access to adequate resources in the site?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Few, if any, personnel explicitly allocated for PA management.	Poor		Discussion with DFO & verification of records	Out of five Foresters for the sanctuary there is vacancy of one Forester. Further out of eleven Forest Guards, there are two vacancies. Also to assist these staff in their protection duty & elephant anti depredation squads, Twenty five Nos. of daily wages watchers are provided. The protection staffs have access to two vehicles, four GPS, two VHF sets, One revolver & sufficient cartridges, One fire blowers. However they would require
Some personnel explicitly allocated for PA management but not systematically linked to management objectives.	Fair	✓		
Some personnel explicitly allocated towards achievement of specific management objectives.	Good			
Adequate personnel explicitly allocated towards achievement of specific management objectives.	Very good			

				some more equipment for the effective discharge of their duty. The profile of the staff in three ranges of the sanctuary is shown in the table below this Para.
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* This assessment should *inter-alia* be based on number of personnel allocated for attainment of PA objectives at the Range , Round, Beat and Patrolling camps levels or as relevant to the needs (sanctioned posts *vis- a- vis* existing personnel and needs beyond the sanctioned strengths. It is possible that posts have last been sanctioned several years back that do not now account for the current needs)

Staff position with special reference to vacancies of frontline forest staff and age profile:-

Details list of staff position :

DHENKANAL RANGE

Sl No.	Name of the Range/ Section / Beat	Name of Staff	Designation	Age	Remarks
1	2	3	4	5	6
1	Dhenkanal Range	Bibhuti Bhusan Pattnaik	Range Officer	53	
2	Baladiabandha Section	Subash Ch. Sahoo	Forester	41	
3	Baladiabhandha Beat	Prasant Ku. Nayak	Forest Guard	48	
4	Kurumtangar Beat	Pranati Roul	Forest Guard	30	

KAPILASH RANGE

Sl No.	Name of the Range/ Section / Beat	Name of Staff	Designation	Age	Remarks
1	2	3	4	5	6
1	Kapilash Range	Darshnia Bhoi	Range Officer	48	
2	Sorisiapada Section	P.K. Panigrahi	Forester	56	
3	Deogaon Section	Arya Ranjan Sahu	Forester	34	
4	Chatighar Section	-	-		Vacant
5	Sorisiapada Beat	Upendra Ku Nayak	Forest Guard	54	
6	Deogaon Beat	Sibaram Behera	Forest Guard	42	
7	Biradia Beat	Madhusmita Pati	Forest Guard	32	
8	Mahisiakada Beat	Gayatri Behera	Forest Guard	24	
9	Chatighar Beat A	Kanhu Ch. Behera	Forest Guard	35	
10	Chatighar Beat B	-	-	-	Vacant
11	Bania Beat A	Jharana Das	Forest Guard	26	

SADANGI RANGE

Sl No.	Name of the Range/ Section / Beat	Name of Staff	Designation	Age	Remarks
1	2	3	4	5	6
1	Sadangi Range	Bibhudananda Mishra	Range Officer I/C	50	
2	Khankira Section	Amar Prasad Nanda	Forester	54	
3	Khankira Beat	-	-	-	Vacant
4	Mundamari Beat	Benudhar Behera	Forest Guard	25	
5	Chhotatentuli Beat	Tarunsen Pattnaik	Forest Guard	47	

ABSTRACT

Name of Range	Total Range Officer	Total Forester	Total Forest Guard	Vacant	Total
Dhenkanal	1 No.	1 No.	2 Nos.	-	4 Nos.
Kapilash	1 No.	2 Nos.	6 Nos.	2 Nos.	11 Nos.
Sadangi	1 No.	1 No.	2 Nos.	1 No.	5 Nos.
Total	3 Nos.	4 Nos.	10 Nos.	3 Nos.	20 Nos.

3.2 Are resources (vehicle, equipment, building etc.) adequate, well organised and managed with access to adequate resources?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Few, if any, resources explicitly allocated for PA management.	Poor		Discussion with DFO & verification of records	There is shortage of vehicles, equipment & buildings for the management of this sanctuary. There are four vehicles already provided for management & it is found that four additional vehicles are required for upgrading protection & anti-depredation works in & around this sanctuary. Further the sanctuary requires two additional buildings for ranges, five buildings for section head quarters & six buildings for beat guards. The management also additionally requires eight GPSs, four camera traps, ten fire blowers, three guns, ten VHF walkie talkie & two VHF stationary sets for base stations. Range wise availability of vehicles, equipment & buildings are shown in the table below the Para.
Some resources explicitly allocated for PA management but not systematically linked to management objectives.	Fair	✓		
Some resources explicitly allocated towards achievement of specific management objectives.	Good			
Adequate resources explicitly allocated towards achievement of specific management objectives.	Very good			

* These form a variety of resources. These may be segregated into immovable (structures) and movable categories and each further may be considered under the essential and desirable categories. It is best to start with what are the minimum needs to attain each objective, what is available and manner of use/deployment. The proportions of the 'essentials' and 'desirables' along the importance gradient of objectives would serve as pointers for score categories. Specific remarks would be vitally important.

2. List of vehicles, fields equipments, buildings etc.:-

Position of vehicles

Range	Place	No. of vehicle engaged
Sadangi	Chhotatentuli	1 No.
Kapilash	Kapilash	1 No.
Dhenkanal	Kurumtangar	1 No.

Position of field equipments (VHF etc.)

Range	Place	Remarks
Sadangi	Chhotatentuli	1 No. station with walkie-talkie
Kapilash	Kapilash	-do-
	Chatighar	-do-

List of Buildings

Range	Place	Meant for the staff
Sadangi	Chotatentuli	F.G Qtrs.
	Khankira	Forester's Qtrs.
Kapilash	Kapilash	New Range Office Building at Kapilash
	Kapilash	Forest Guard Qtrs.
	Chatighara	Beat House
	Sorisiapada	Beat House

3.3 Are resources (human and financial) linked to priority actions and are funds released timely?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Resource allocation is adhoc, funds are inadequate and seldom released in time and not utilized.	Poor		Discussion with DFO & verification of records	In view of heavy human elephant conflict in the Division in general & sanctuary in particular, system is in place to resolve the conflict & take suitable action for conservation. The resources are utilized for the objectives, as indicated above. The amount released during last three years is shown in the table below this Para.
Some specific allocation for management of priority action. Funds are inadequate and there is some delay in release, partially utilized.	Fair			
Comprehensive planning and allocation that meets the most important objectives. Generally funds released with not much delay and mostly utilized.	Good	✓		
Comprehensive planning and allocation of resources for attainment of most objectives. Funds generally released on-time and are fully utilized.	Very good			

*Obtain details of funds released by MoEF and their utilization by site in the last 3 years and indicate them under 'Remarks'. Also comment on the problems associated with funds and their mitigation.

Year	Name of Scheme	Funds received	Funds utilized	Remarks
2014-15	2406-Fry & WL Non Plan	1117000	1117000	Detail list enclosed
	2406-Fry & WL State Plan	327000	327000	
	CAMPA APO-2013-14	4757000	4597000	
	Total	6201000	6041000	
2015-16	2406-Fry & WL Non Plan	225000	225000	
	2406-Fry & WL State Plan	3135720	3135720	
	CAMPA APO-2014-15	4000000	3844005	
	Total	7360720	7204725	
2016-17 up to 12/16	2406-Fry & WL State Plan	4592000	2935277	
	CAMPA APO-2015-16	660000	480000	
	Total	5252000	3415277	

3.4 What level of resources is provided by NGOs?

Assessment criteria*				
Condition*	Category*	(Tick ✓)	Reference document(s)	Remarks
NGOs contribute nothing for the management of the site.	Poor	✓	Discussion with DFO & verification of records	No NGO provides any support for the sanctuary management.
NGOs make some contribution to management of the site but opportunities for collaboration are not systematically explored.	Fair			
NGOs contributions are systematically sought and negotiated for the management of some site level activities.	Good			
NGOs contributions are systematically sought and negotiated for the management of many site level activities.	Very good			

Details of contributions(cash/kind) made by the NGOs in the last 3 years may be collected.

3.5 Does PA manager considers resources (human and financial) to be sufficient?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Resources insufficient for most tasks.	Poor		Discussion with DFO & verification of records	More funds are required for infrastructure development of the sanctuary. Presently management receives Rs.65 lakhs annually. Looking at the inadequacy of the resources, it is found that the animal requirement of fund should be stepped up to Rs125 lakhs. This would help in procuring equipment, constructing buildings, strengthening protection duty and monitoring the outcome.
Resources sufficient for some tasks.	Fair	✓		
Resources sufficient for most tasks.	Good			
Resources are in excess for most tasks.	Very good			

4. Process

4.1 Does the site have trained manpower resources for effective PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Very few trained officers and frontline staff in the site.	Poor		Discussion with DFO & verification of records	The recruitment of Foresters & Forest guards has taken place in recent four-five years and the persons are directly posted without imparting any training. In view of limited availability of seats in the training schools, they will be sent for training in a phased manner. Also none of the staff of any category is trained in subjects relating to Wildlife management. Expert should be invited to conduct short duration training for front line staff in the range head quarters.
Few trained officers and frontline staff, who are posted in the site.	Fair	✓		
A large number of trained officers and frontline staff are posted in the site.	Good			
All trained managers and frontline staff posted in the site.	Very good			

* Indicate % of trained staff in various categories. i.e. Higher Management: ACF/ DCF/ CF/ CCF; Frontline Staff: Range Officer; Beat Officer; Forest Guard; Casual Daily Labour (CDL); Others.

4.2 Is PA staff performance management linked to achievement of management objectives?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No linkage between staff performance management and management objectives.	Poor		Discussion with DFO & verification of records	The staffs of the Division are sometimes engaged in holding the traffic on NH55 to provide passage for the herd of elephants. Similarly the assistance of Railway control room is sought to slow down the trains between Dhenkanal and Talcher. This requires a very high level of commitment and sincerity on part of the concerned forest staff. Some of them have done exemplary works in the field of wildlife conservation. Although DFO Dhenkanal recommended the name of a staff by name Amar Prasad Nada, Forester, Sadangi range along with several other officials of the Division for Bijupattanik award for wildlife
Some linkage between staff performance management and management objectives, but not consistently or systematically assessed.	Fair	✓		
Performance management for most staff is directly linked to achievement of relevant management objectives.	Good			
Performance management of all staff is directly linked to achievement of relevant management objectives.	Very good			

				conservation during 62 nd wildlife week celebration on 5 th October, 2016, but the same was not be accepted at the state level.
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*Has the PA staff received award/ appreciation from any agency in the last 3 years?

4.3 Is there effective public participation in PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no public participation in PA management.	Poor		Discussion with DFO & verification of records	The communities living in and around the sanctuary participate in forest fire control, elephant anti-depredation, patrolling in the forests & several forestry works implemented for habitat improvement. The man-days generated in PA for last three years is shown in the table below this Para.
Opportunistic public participation in some aspects of PA management.	Fair			
Systematic public participation in most aspects of PA management.	Good	✓		
Comprehensive and systematic public participation in all important aspects of PA management.	Very good			

* Participation would include Conservation & awareness programmes, Census operations, Intelligence gathering, Forest fire control etc.

Number man-days of employment generated by the PA over the last 3 years:-

Year	Name of scheme	Man-days generated
2014-15	2406-Fry & WL Non Plan	1714
	2406-Fry & WL State Plan	654
	CAMPA APO-2013-14	2000
	Total	4368
2015-16	2406-Fry & WL Non Plan	450
	2406-Fry & WL State Plan	8395
	CAMPA APO-2014-15	10395
	Total	19240
2016-17 up to 12/16	2406-Fry & WL State Plan	8840
	CAMPA APO-2015-16	960
	Total	9800
	G.Total	33408

4.4 Is there a responsive system for handling complaints and comments about PA management?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic approach to handling complaints.	Poor		Discussion with DFO & verification of records	The people use RTI channel for obtaining details relating to the management & taking any action as deemed fit. One such case of asking for elephant corridor & area of Kapilash RF is available on records and is shown to MEE team in Dhenkanal division office. The supply of information is still under process. There is no complaint box/ complaint register in any of the ranges and also in the division office.
Complaints handling system operational but not responsive to individual issues and limited follow up provided.	Fair	✓		
Coordinated system logs and responds effectively to most complaints.	Good			
All complaints systematically logged in coordinated system and timely response provided with minimal repeat complaints.	Very good			

* Number of queries made and response thereof under the Right to Information (RTI), Act in the last 3 years may be compiled.

4.5 Does PA management addresses the livelihood issues of resource dependent communities especially of women?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No livelihood issues are addressed by PA management.	Poor		Discussion with DFO & verification of records	The management has taken up some activities supporting local livelihood. The some of the details available in the table below this Para.
Few livelihood issues are addressed by PA management.	Fair	✓		
Substantial livelihood issues are addressed by PA management.	Good			
Livelihood issues of resource dependent communities especially women are addressed effectively by PA managers.	Very good			

Details of activities for supporting local livelihoods:-

Distribution of vegetable, Horticulture & Agro Forestry seedling raised and health camps & immunization of cattle programme have been carried out.

Name of activities	Place	Nos.
Agro Forestry seedling	Chhanabolua	25000 raised & distributed
Fruit bearing Distribution	Chhanabolua	10000 raised & 8579 nos. distributed
Health camp	Baladiabandah, Chhotatentuli, Khankira & Deogan	4 nos. health camp
Immunization of Cattle Programme	Kurumutangar of Dhenkanal Range & Sorisiapada of Kapilash Range	2 nos. cattle programme

5. Output

5.1 Is adequate information on PA management publicly available?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no information on PA management publicly available.	Poor			The sanctuary is listed in sate web site for wildlife as well as tourism. Some publicity materials in the form of pomp lets , Posters etc. are available in the Division. Also there are signage fixed at strategic locations, showing the necessity of the protection of the sanctuary.
Publicly available information is general and has limited relevance to management accountability and the condition of public assets.	Fair	✓		
Publicly available information provides detailed insight into major management issues for most PAs or groups of PAs.	Good			
Comprehensive reports are routinely provided on management and condition of public assets in all PAs or groups of PAs.	Very good			

* Does the Site has a website? If yes, is it comprehensive, well-managed and periodically updated?

5.2 Are visitor services (tourism and interpretation) and facilities appropriate for the relevant protected area category?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Visitor services and facilities are at odds with relevant PA category and/or threaten PA values.	Poor			There are no tourist infrastructures available in and around the sanctuary. However, several pilgrims visit Kapilash temple located near the sanctuary. The right of way for the temple is through the sanctuary. Further there is no interpretation center established in the sanctuary.
Visitor services and facilities generally accord with relevant PA category and don't threaten PA values.	Fair	✓		
All visitor services and facilities accord with relevant PA category and most enhance PA values.	Good			
All visitor services and facilities accord with relevant PA category and enhance PA values.	Very good			

* Include the existence and quality of visitor and interpretation centers, including skills and capabilities of personnel manning these, site related publications, films, videos; arrangements of stay (including places serving refreshments and food owned and managed by site), watch towers and hides including safety factors, vehicles assigned for visitors including riding elephants, if any and their deployment, drinking water, rest rooms, garbage disposal, attended and self guided services in the field, visitor feedback on the quality of wilderness experience. Details of numbers of visitors/ tourists (both domestic and overseas) coming in the last 3 years and the revenue earned may be compiled.

5.3 Are research/ monitoring related trends systematically evaluated and routinely reported and used to improve management?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Little or no systematic evaluation or routine reporting of trends.	Poor		Discussion with DFO	One scientist named Dr. Susil Dutta, Indian Institute of Science; Benguluru has conducted study relating to floral & faunal diversity in Kapilash Sanctuary. WTI has conducted studies on elephant corridors in the landscape and has concluded the findings. Three such corridors
Some evaluation and reporting undertaken but neither systematic nor routine.	Fair	✓		
Systematic evaluation and routine reporting of management related trends undertaken.	Good			
Systematic evaluation and comprehensive reporting of trends undertaken and attempts made at course corrections as relevant.	Very good			

				<p>pass through Dhenkanal Division, but none goes through the sanctuary.</p> <p>The Indian Institute of Sciences, Bengaluru is conducting studies relating to carrying capacity of elephants in the state of Odisha. The study has also covered Dhenkanal Division.</p> <p>DFO has not found any usefulness of these studies in improving management.</p>
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* Not all site attract projects and researchers and with exceptions, little research takes place on the site own steam because of systemic limitations. However, monitoring of some critical issues is expected e.g. population of tiger, co-predators and prey with insights into their demography and distribution (some opportunistic sampling by sightings, signs and spatial distribution during assessment would be extremely useful in terms of expert impression and as a pulse), monitoring incidence of livestock grazing, fires, weeds, sources of water, a variety of illegal activities typically associated with the reserve, wildlife health (e.g. epidemics, immunization of livestock) regeneration and change in vegetation, visitors and their activities, offence cases, ex-gratia payments etc. Details of number of research projects in the last 3 years, institutions involved, salient outcomes may be collected and used in awarding scores.

5.4 Is there a systematic maintenance schedule and funds in place for management of infrastructure/assets?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
No systematic inventory or maintenance schedule.	Poor		MP Page-85, discussion with the DFO & verification of records.	Maintenance schedule is provided in Chapter 11, Page-85 of Management Plan. However the corresponding budgets have not been provided for implementing the works as per schedule.
Inventory maintenance is adhoc and so is the maintenance schedule.	Fair			
Systematic inventory provides the basis for maintenance schedule but funds are inadequately made available.	Good	✓		
Systematic inventory provides the basis for maintenance schedule and adequate funds are made available.	Very good			

6. Outcomes

6.1 Are populations of threatened species especially key faunal species declining, stable or increasing?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threatened/ endangered species populations declining.	Poor			Population of key faunal species like elephants and other herbivores are stable.
Some threatened/ endangered species populations increasing, most others stable.	Fair			
Most threatened/ endangered species populations increasing, most others stable.	Good	✓		
All threatened/ endangered species populations either increasing or stable.	Very good			

* This needs to practically relate to the natural ecosystem potential rather than being driven merely by numbers and visibility. The assessment score may be elaborated under remarks. Comments on the population trends may be made under Remarks.

6.2 Have the threats to the site being reduced/ minimized or is there an increase?

Assessment criteria				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Threats to the Site have not abated but have enhanced.	Poor		Discussion with DFO.	Management has coordinated with the Electricity department and succeeded in avoiding electrocution of elephants. Forest fire is minimized for last two years. Similarly poaching and hunting have also come down. However, status of grazing, illicit felling of trees for fuel wood, etc has remained unchanged.
Some threats to the Site have abated, others continue their presence	Fair			
Most threats to the Site have abated. The few remaining are vigorously being addressed	Good	✓		
All threats to the Site have been effectively contained and an efficient system is in place to deal with any emerging situation	Very good			

6.3 Are the expectations of visitors generally met or exceeded?

Assessment criteria*				
Condition	Category*	(Tick ✓)	Reference document(s)	Remarks
Expectations of visitors generally not met.	Poor		Discussion with the DFO	Since there is no tourism infrastructure, like places of halt, safari, etc, the question of expectation of visitors does not arise. Further, visitors to Kapilash temple remain satisfied.
Expectations of many visitors are met.	Fair			
Expectations of most visitors are met.	Good	✓		
Good expectations of most visitors are met.	Very good			

* Is there any system of receiving/ analyzing visitor feedback?

6.4 Are local communities supportive of PA management?

Assessment criteria*				
Condition	Category	(Tick ✓)	Reference document(s)	Remarks
Local communities are hostile.	Poor		Discussion with DFO	During the interaction with the local communities, the team found that many of them who specially availed benefits like LPG connection, also resorted to dairy farming and consequent stall feeding. Such communities are supportive of sanctuary management.
Some are supportive.	Fair			
Most locals are supportive of PA management.	Good	✓		
All local communities supportive of PA management.	Very good			

* There could be many reasons for disenchantment. It could be real because of managerial neglect or the managerial efforts could be appropriate but there could be local elements/organizations who would like to keep the dis-affectation simmering for their own ulterior motives. Likewise success could be entirely because of the efforts of managers or they might be fortunate in striking partnerships with credible NGOs. Assessment may take the prevailing causes into account.

MEE Score Card

Framework Element Number	Framework Element Name	Number of Questions (a)	Maximum Mark per question (b)	Total (a x b)	Marks obtained for the Element	Overall Score
1.	Context	03	10	30	20	62.5%
2.	Planning	09	10	90	62.5	
3.	Inputs	05	10	50	25	
4.	Process	05	10	50	27.5	
5.	Outputs	04	10	40	22.5	
6.	Outcomes	04	10	40	30	
Total		30		300	187.5	