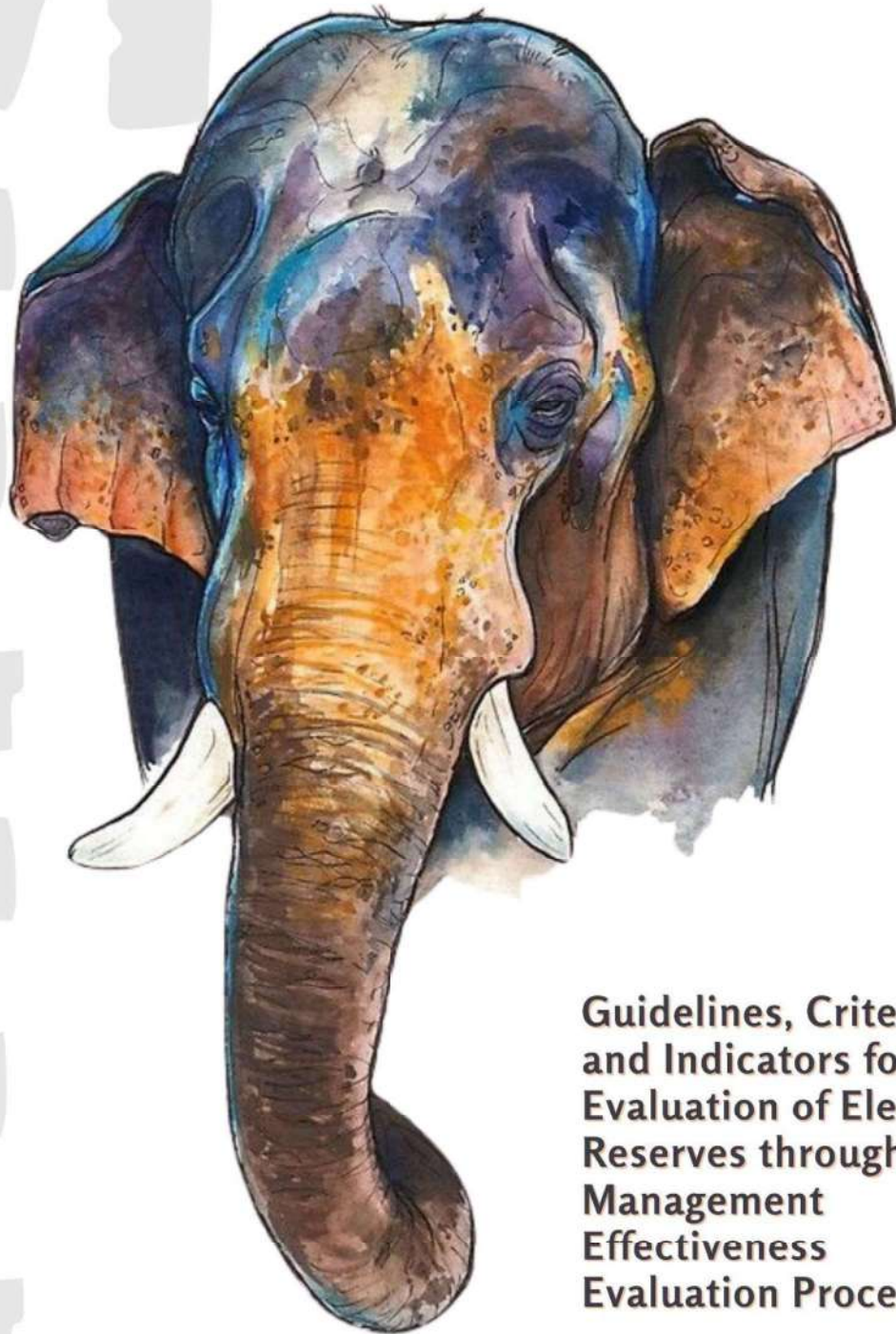


MEE - ER

Management Effectiveness Evaluation of Elephant Reserves in India



Guidelines, Criteria
and Indicators for
Evaluation of Elephant
Reserves through
Management
Effectiveness
Evaluation Process

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Evaluation Process





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Climate Change, Government of India & Wildlife
Institute of India

April 2023

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Document such as these are often a product of collaboration and generous knowledge sharing. The document is not an exception. We would like to express our gratitude to expert scientists, managers and professionals who contributed to this document as well as many individuals who have supported this important work.



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MEE - ER



MEE - ELEPHANT RESERVES

CHAPTER 1

INTRODUCTION

INTRODUCTION

1.1 BACKGROUND

There are historic records to indicate that elephants were legally protected by the ancient rulers of India at least 2000 years before the present. Such protection entailed creation of reserves dedicated for total protection of elephants and their habitats, akin to modern Protected Areas. During the colonial era, a legislation by the British known as the Madras Wild Elephant Protection Act of 1873 was a precursor in according to formal legal protection to elephants. Subsequently, most of the elephant habitats were accorded legal protection following the enactment of the Indian Forest Act of 1927. Post-independence, Government of India enacted the Wildlife (Protection) Act 1972, which superseded other legislations and presently places the elephant in Schedule-I of the act according highest legal protection in the country. Parallely, the Forest (Conservation) Act of 1980 addressed the pressing issue of deforestation that threatened elephant habitats.

In spite of these proactive measures, the global surge in the illegal ivory trade penetrated into India's even finest wildlife reserves taking a heavy toll on the majestic ivory carrying bulls. The wave of ivory poaching swept through India and the tuskers were becoming increasingly rare. The situation necessitated a mission-mode towards elephant conservation with a centralized institution that could provide technical and financial assistance to combat threats like illegal elephant hunting and human-elephant conflict, which was surfacing in frontier areas due to habitat-related threats. With this overarching objective, the Government of India launched the ambitious Project Elephant during February 1992 as a central scheme to revitalize elephant conservation in India. The Project Elephant was intended to provide technical and financial support to the states to achieve elephant conservation objectives.

The stated objectives of the Project Elephant include:

- I. To protect elephants, their habitats, and corridors
- II. To address issues of man-elephant conflict
- III. To improve the welfare of captive elephants

Under the Project Elephant scheme, the State Governments of elephant range were to identify and propose conservation areas that can be declared as Elephant Reserves (ERs). In order to bring uniformity in management practices across the country; to provide technical and financial support to elephant range states and address issues facing human-elephant conflict, Elephant Reserves (ERs) have been created across the four elephant- holding regions. India has notified 33 ERs covering an area of c. 80,778 km² across 14 states. Conceptually, the ERs were envisioned as primary managements unit for managing elephant habitats, populations and at the same time, foster human-elephant co-existence in the shared landscapes.

Unlike tiger reserves of India, the concept of ERs did not adequately amalgamate into management realm as yet. As ERs emanate out of the landscape approach advocated for elephant conservation and management considering large elephant home ranges and high mobility, mainstreaming ERs with wildlife management with an aim of standardizing elephant specific management requirements would be important for better management of elephant habitats and populations. With this aim, it has been envisioned to implement the management evaluation of the Elephant Reserves (MEE for ER) to identify conceptual, administrative and legal impediments facing their management. Hence, a framework that could help in evaluating the Elephant Reserves has been developed by duly considering the nuances of elephant ecology, behaviour and human demography and conservation threats.





S. No.	Name of the Elephant Reserve	State	Region	Area (km ²)
1	Rayala	Andhra Pradesh	Southern	766.0
2	South Arunachal	Arunachal Pradesh	North East	1892.0
3	Kameng	Arunachal Pradesh	North East	1957.5
4	Sonitpur	Assam	North East	1420.0
5	Kaziranga Karbi Anglong	Assam	North East	3270.0
6	Dihing Patkai	Assam	North East	937.0

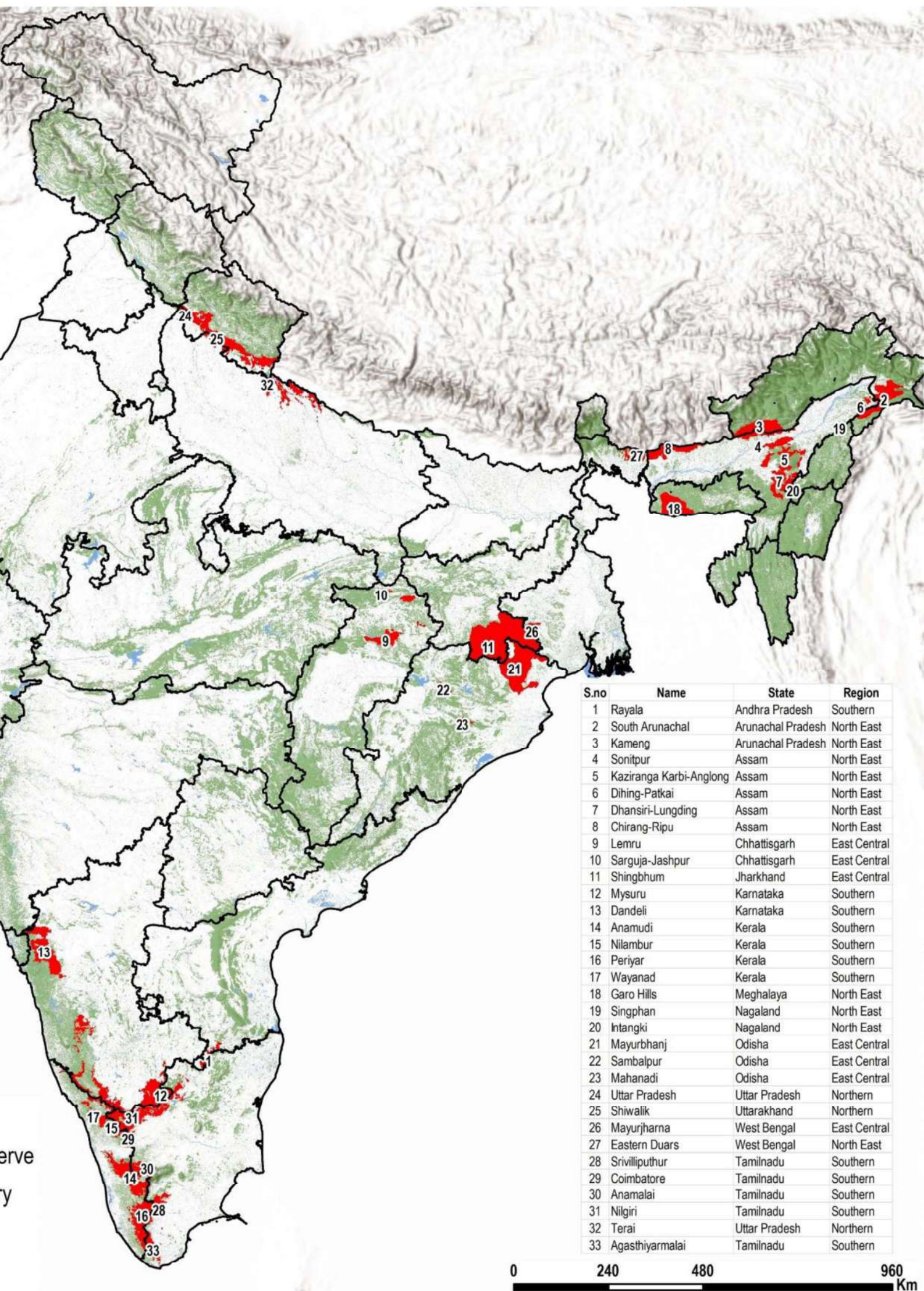
<i>S. No.</i>	<i>Name of the Elephant Reserve</i>	<i>State</i>	<i>Region</i>	<i>Area (km²)</i>
7	Dhansiri Lungding	Assam	North East	2740.0
8	Chirang Ripu	Assam	North East	2600.0
9	Lemru	Chhattisgarh	East Central	1995.5
10	Sarguja-Jashpur	Chhattisgarh	East Central	1143.3
11	Shingbhum	Jharkhand	East Central	13440.0
12	Mysuru	Karnataka	Southern	8055.9
13	Dandeli	Karnataka	Southern	2321.0
14	Anamudi	Kerala	Southern	3728.0
15	Nilambur	Kerala	Southern	1419.0
16	Periyar	Kerala	Southern	3742.0
17	Wayanad	Kerala	Southern	1200.0
18	Garo Hills	Meghalaya	North East	3500.0
19	Singphan	Nagaland	North East	23.5
20	Intangki	Nagaland	North East	202.0
21	Mayurbhanj	Odisha	East Central	3213.8
22	Sambalpur	Odisha	East Central	427.0
23	Mahanadi	Odisha	East Central	1038.3
24	Uttar Pradesh	Uttar Pradesh	Northern	744.0
25	Shiwalik	Uttarakhand	Northern	5406.0
26	Mayurjharna	West Bengal	East Central	414.0
27	Eastern Duars	West Bengal	North East	978.0
28	Srivilliputhur	Tamilnadu	Southern	1249.0
29	Coimbatore	Tamilnadu	Southern	566.0
30	Anamalai	Tamilnadu	Southern	1457.0
31	Nilgiri	Tamilnadu	Southern	4663.0
32	Terai	Uttar Pradesh	Northern	3072.3
33	Agasthiyarmalai	Tamilnadu	Southern	1197.5
			<i>Total</i>	80778.7

There are 33 elephant reserves spread across 14 states, covering an area of 80,778.7 sq. km.



Legend

-  Elephant Res
-  State boundar
-  Forest
-  Water body



1.2 BRIEF HISTORY ON MANAGEMENT OF ELEPHANTS

The management of elephants has a long and complex history. Throughout history, elephants have been used for various purposes, such as transportation, war, and entertainment. In ancient times, elephants were trained and used for warfare, with their strength and size being a major asset in battles. In the 19th and 20th centuries, the use of elephants shifted from warfare to work and transportation, such as logging and transportation of heavy goods. However, this led to the exploitation of elephants and their mistreatment, leading to a decline in their population and habitat destruction.

In recent years, there has been a growing awareness of the need to protect and conserve elephants. This has led to the development of various management strategies and practices aimed at ensuring the survival of elephants and their habitats. These management strategies include the establishment of national parks and protected areas, the development of conservation programs, and the adoption of ethical practices for the management and treatment of elephants in captivity. Today, the management of elephants is an important aspect of conservation efforts worldwide, with many organizations and initiatives dedicated to protecting these majestic animals and ensuring their survival for generations to come.

MEE - ER



MEE - ELEPHANT RESERVES

CHAPTER 2
MANAGEMENT
EFFECTIVENESS
EVALUATION OF
ELEPHANT RESERVES

CHAPTER TWO

MANAGEMENT EFFECTIVENESS EVALUATION OF ELEPHANT RESERVES

2.1 FRAMEWORK FOR ASSESSING THE MANAGEMENT EFFECTIVENESS OF PROTECTED AREAS

Assessment of management effectiveness has emerged as a key tool for Protected Area managers and is increasingly being required by governments and international bodies. Evaluation of management effectiveness is generally carried out by assessing a series of criteria (represented by carefully selected indicators) against agreed objectives or standards. The management effective evaluation (MEE) process in India has been adopted from a global framework of IUCN WCPA for evaluation of the Protected areas and Tiger Reserves (Mathur 2008).

Protected area (PA) management effectiveness evaluation (MEE) is defined as the assessment of how well PAs are being managed primarily, whether they are protecting their values and achieving the goals and objectives agreed upon. Evaluation consists of reviewing the results of actions taken and assessing whether these actions are producing the desired outcomes. Evaluation is a routine part of the management process and is something that most managers already do. The evaluation of management effectiveness builds on this existing routine (Pomeroy et. al. 2005).

The term 'management effectiveness' reflects three main themes of PA management:

- Design issues relating to both individual sites and PA systems
- The adequacy and appropriateness of management systems and processes
- Delivery of the objectives of PAs, including conservation of values.

Broadly speaking, MEE can:

- Enable and support an adaptive approach to management
- Assist in effective resource allocation
- Promote accountability and transparency
- Help involve the community and build constituencies
- Promote the values of PAs.

Mathur, V.B. 2008. Management Effectiveness Evaluation (MEE) of Protected Areas Network in India: Recent Experiences. Implementation of the CBD Programme of Work on Protected Areas: Progress and Perspectives. Abstracts of poster presentations at the second meeting of the Ad Hoc Open-Ended Working Group on Protected Areas, 11-15 February 2008 in Rome, Italy. Technical Series No. 35, 106 pages. Secretariat of the Convention on Biological Diversity.

Pomeroya, R.S, Watson B. L.M., Parksc J.E. and Cidc G.A. 2005. How is your MPA doing? A methodology for evaluating the management effectiveness of marine protected areas. *Ocean & Coastal Management* 48: 485-502

A uniform theme has been provided to these assessments by the IUCN World Commission on Protected Areas (WCPA) Framework for Assessing the Management Effectiveness of Protected Area which aims both to give overall guidance in the development of assessment systems and to encourage basic standards for assessment and reporting.

The WCPA Framework for Assessing Management Effectiveness is a system for designing PA management effectiveness evaluations with six elements: context, planning, inputs, processes, outputs and outcomes (Figure 2.1). It is not a methodology but is a guide for developing assessment systems. The WCPA Framework sees management as a process or cycle with six distinct stages, or elements:

- a) It begins with establishing the context of existing values and threats,
- b) progresses through planning and
- c) allocation of resources (inputs)
- d) as a result of management actions (process) and
- e) eventually produces goods and services (outputs)
- f) that result in impacts or outcomes.

Of these elements, the outcomes most clearly indicate whether the site is maintaining its core values, but the outcomes can also be the

most difficult element to measure accurately. However, the other elements of the framework are all also important for helping identify particular areas where management might need to be adapted or improved.

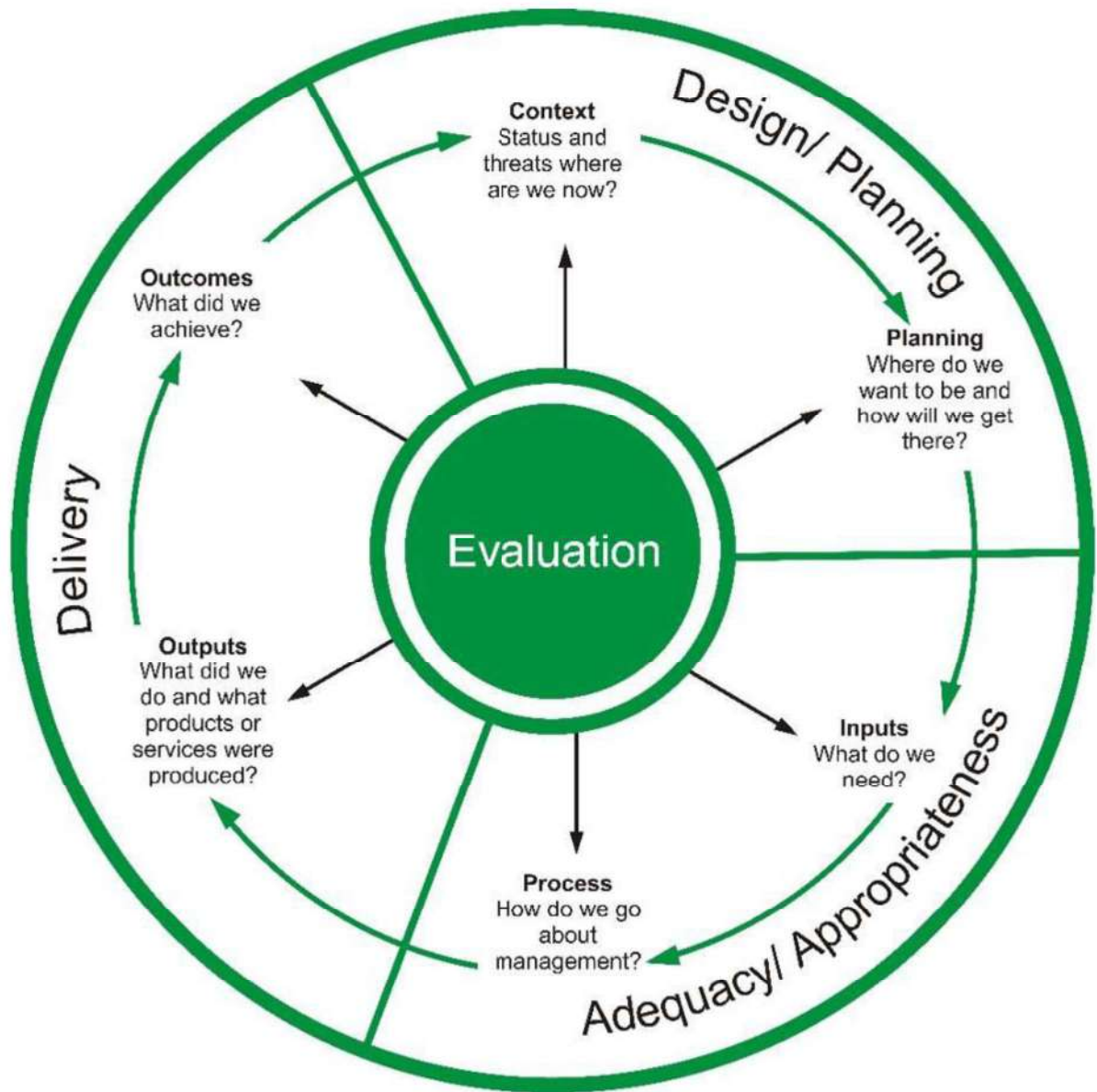


Figure 2.1: The WCPA Framework for Assessing Management Effectiveness

Source: Hockings, M., Stolton, S., Leverington, F., Dudley, N., & Courrau, J. 2006. Evaluating Effectiveness: A Framework for Assessing Management Effectiveness of Protected Areas. 2nd edition. Gland, Switzerland and Cambridge, UK: IUCN. xiv + 105 pp.

2.2 MEE OF PROTECTED AREAS ACROSS THE WORLD AND INDIA

Over the past 10 years, numerous assessment systems have been developed, most based at least to some extent on the WCPA Framework. They vary from simple questionnaire-type approaches suitable for individual PAs, through workshop-style approaches aimed at whole PA systems, to detailed monitoring systems. The approach described here is a fairly detailed monitoring and evaluation system, suitable for sites of particular importance (Hockings et al. 2008). Evaluation of PA management effectiveness Framework has been adopted in several countries worldwide and almost 40 methodologies have been developed and applied to the assessment of the management effectiveness of PAs (Leverington et al. 2008).

India has also made a beginning in evaluating the management effectiveness of its national parks, wildlife sanctuaries, tiger reserves (TRs) and world heritage sites (Table 2.1). The detailed assessments were made in 3 Natural World Heritage sites in South Asia, namely Keoladeo National Park, Rajasthan, Kaziranga National Park, Assam and Chitwan National Park, Nepal during 2002-2008. The MEE of national parks and wildlife sanctuaries in India was initiated in 2006 and by 2020, one cycle of all National parks and Wildlife Sanctuaries have been completed and second cycle of evaluation is ongoing. Under India's Project Tiger, five cycles of evaluations have been completed, first cycle- 28 Tiger Reserves (TRs) in 2006, second cycle- 39 TRs in 2010, third cycle- 43 TRs in 2014 and in fourth cycle, 50 TRs in 2018 and in fifth cycle field visits of 51 TRs have been completed.

Table 2.1: Overview of Management Effectiveness Evaluation Exercise in India

S. No.	Type of Approach	Application in India
1	In-depth, Evidence based assessment WORLD HERITAGE SITES	Three World Heritage Sites (WHS) (2002-2008) Keoladeo WHS, Rajasthan, India Kaziranga WHS, Assam, India Chitwan WHS, Nepal
2	Rapid Expert-based score card NATIONAL PARKS AND WILDLIFE SANCTUARIES	One Cycle of MEE of all National parks and Wildlife Sanctuaries completed from 2006 to 2020. Second cycle of MEE is ongoing from 2021 onwards.

S. No.	Type of Approach	Application In India
3	Comprehensive system-wide, Peer-based assessment TIGER RESERVES NETWORK	First Cycle: MEE of 28 Tiger Reserves in 2006: completed Second Cycle: MEE of 39 Tiger Reserves in 2010: completed Third Cycle: MEE of 43 Tiger Reserves in 2014: completed Fourth Cycle: MEE of 50 Tiger Reserves in 2018: completed Fifth Cycle: MEE of 51 Tiger Reserves in 2022: completed

Hockings, M., James, R., Stolton, S., Dudley, N., Mathur, V., Makombo, J., Courrau, J., Parrish, J., & Patry, M. 2008. Enhancing Our Heritage Toolkit: Assessing Management Effectiveness of Natural World Heritage Sites. World Heritage Paper 23. Paris: UNESCO World Heritage Centre.

Leverington, F., Hockings, M., & Costa, K.L. 2008. Management Effectiveness Evaluation in Protected Areas: Report for the Project 'Global Study into Management Effectiveness Evaluation of Protected Areas'. Gattton, Australia: The University of Queensland, IUCN/WWF, TNC, WWF.

India is among the select countries in the world that have institutionalized the MEE process and has taken a lead in evaluating its National Parks, Wildlife Sanctuaries and Tiger Reserves. Keeping the success of this process in improving the management of protected areas and tiger reserves, Elephant Reserves also need to be evaluated with the customised MEE framework. In this regard, it is proposed that a new framework has been developed through customising the current IUCN-WCPA Framework, Criteria & Indicators through consultation workshops.

2.3 FORMULATION OF MEE FRAMEWORK FOR ELEPHANT RESERVES

Project Elephant firmly introduced the concept of landscape-level planning for the conservation and management of elephant. Some successes have been achieved with respect to strengthening elephant corridors, especially in the states of Karnataka and Kerala, with the help of NGOs. However, there is no action taken in respect of evaluation of management of Elephant Reserves. Therefore, integrated landscape level land-use planning along with assessment of management effectiveness is essentially required for long-term survival of elephant population and its habitat.

With this mandate, the Project Elephant Division of the MoEFCC in its 16th Steering Committee Meeting constituted an 8 Member Committee to develop Guidelines, Criteria and Indicators for Evaluation of Elephant Reserves through Management Effectiveness Evaluation Process in India on 8th June 2022 in

collaboration with Wildlife Institute of India. The committee framed the assessment criteria and indicators for evaluation of Elephant Reserves and submitted to MoEFCC in March 2023.

2.4 KEY FEATURES OF THE PROPOSED FRAMEWORK FOR ER MEE PROCESS AND METHOD

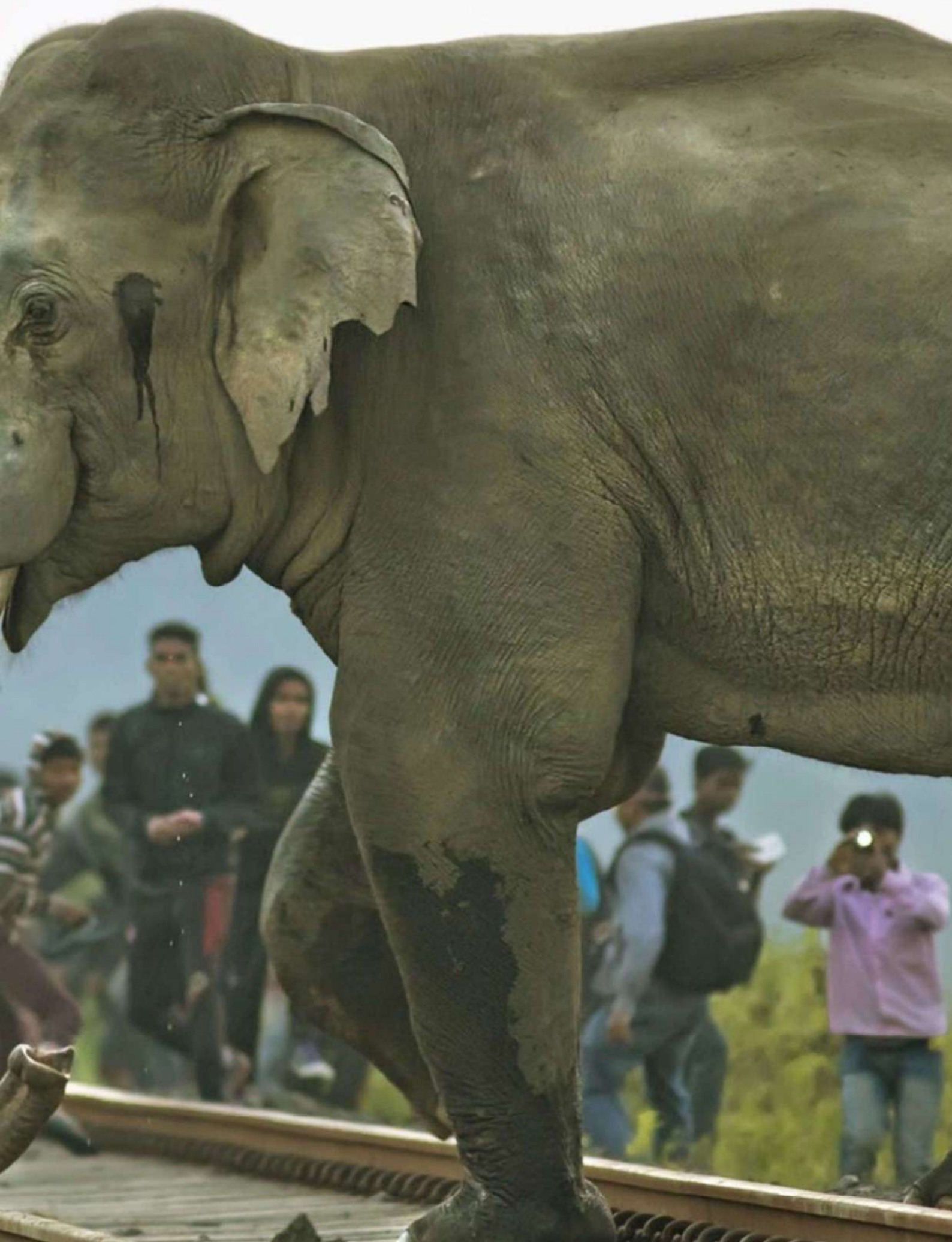
The present MEE framework is one of the detailed evaluation frameworks, developed through a thorough consultative process. Each question comprises explanatory notes and indicative reference document to guides the evaluation process.

The Key features of the proposed assessment framework are as follows:

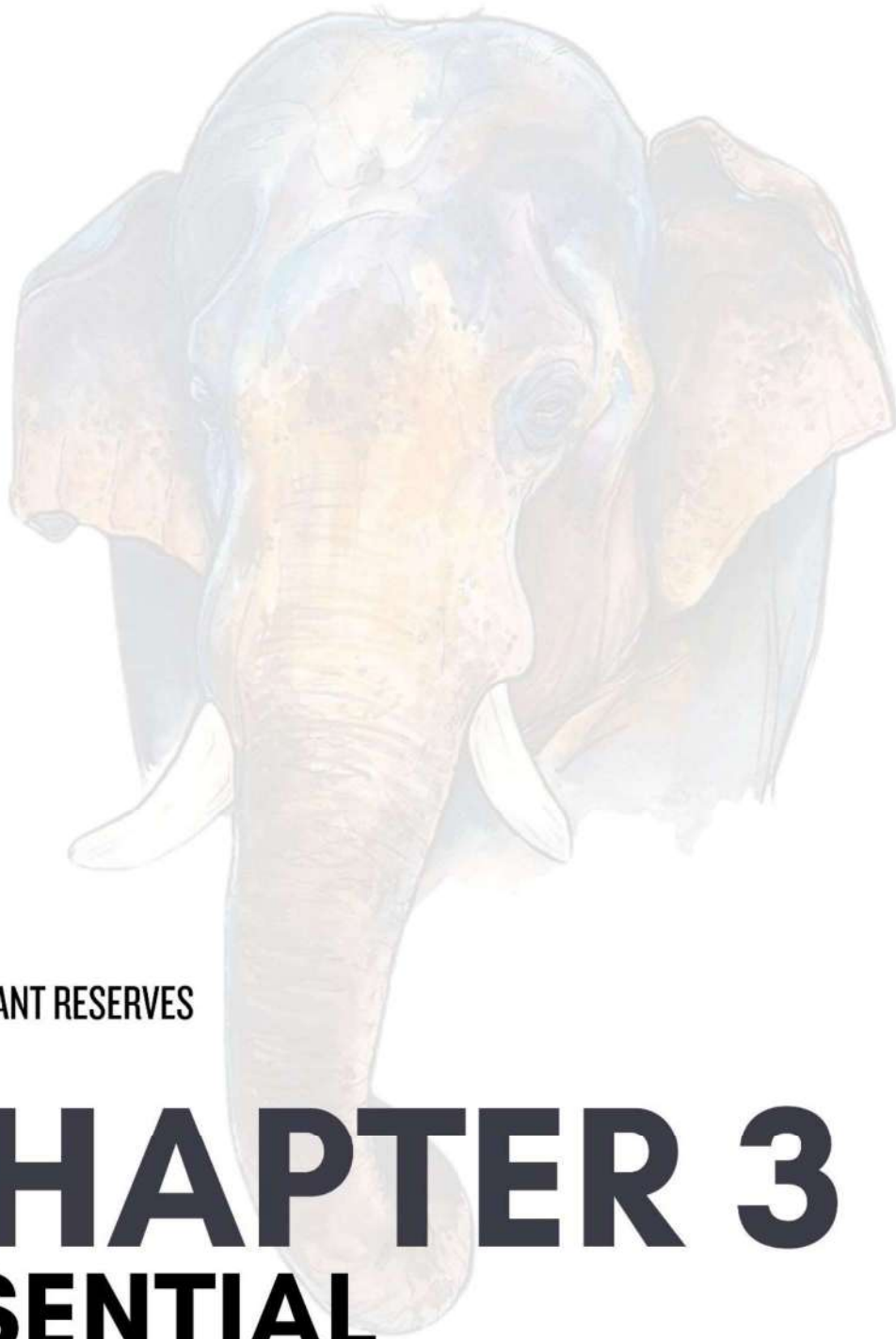
- Comprehensive, useful, discrete, holistic and independent, relevant criteria and indicators
- Logical, systematic, stable and balanced framework
- Structured with guidance notes, replicable and accurate
- Evidence based independent assessment gives clear guidance to measure and score indicators
- Indicators are precise and consistent and can link up
- Measurable in quantitative and qualitative terms
- Rapid assessment with minimum budgetary support
- User friendly, practical and achievable
- Clear and specific focus with strategic guidance and action for improvement
- Assessment will lead to know the status of Elephant Reserves in various categories

The objective of the MEE for the Elephant Reserves is to enhance landscape-level management of elephants across shared landscapes.





MEE - ER



MEE - ELEPHANT RESERVES

CHAPTER 3
ESSENTIAL
FEATURES FOR MEE
OF ELEPHANT
RESERVES

CHAPTER THREE

ESSENTIAL FEATURES FOR MEE OF ELEPHANT RESERVES

3.1 ELEMENTS OF MEE FRAMEWORK

MEE framework of Elephant Reserves includes 6 elements- Context, Planning, Input, Process, Output and Outcomes. A total of 44 questions have been developed in these 6 elements (Table 3.1).

Table 3.1: Elements and number of Indicators/ Questions

<i>S. No.</i>	<i>Name of Element</i>	<i>Number of Questions</i>
1	Context	4
2	Planning	10
3	Input	5
4	Process	10
5	Output	7
6	Outcomes	8
	Total	44

3.2 MEE FRAMEWORK FOR ELEPHANT RESERVES

For assessment of six elements of the MEE framework, 44 criteria (headline indicators) have been developed (4 to 10 questions have been developed in each element). Explanatory notes, wherever needed are provided to guide the assessment process. The scores, along with observations (remarks), provide a better understanding of the situation in the site. Against each 'Criteria' the evaluation team should indicate 'Reference document(s)' and also provide 'Remarks', as appropriate. The scores by themselves will not help in

providing the complete picture unless supported by considered observations (remarks) that qualify such scores. The list of 44 headline indicators (questions) arranged in six elements of MEE framework are given in Table 3.2.

Table 3.2: List of 44 headline indicators (questions) developed for MEE of Elephant Reserves

<i>Elements</i>	<i>Headline Indicators</i>
1. Context	1.1 Are the values of the ER defined, assessed and documented to secure the long term conservation of elephants?
	1.2 Are the threats to the ER identified, assessed and documented in the ER landscape?.
	1.3 Is there inter/intra sectoral coordination between adjoining administrative units across the district and states of the elephant reserve for managing elephant population?
	1.4 Is the ER management able to limit anthropogenic and development pressure?
2. Planning	2.1 Is the ER properly identified and demarcated to achieve the management objectives?
	2.2 Does the existing plans have strategies (TCP, Management plan, Working plan and Zonal Plans (Eco-sensitive Zones) to guide and steer the goals of elephant conservation in the reserve?
	2.3 Is the Management Plan (TCP, Management plan, Working plan and Zonal Plan) routinely and systematically updated?
	2.4 Is the institutional planning and monitoring framework of the ERs developed to address the threats in the elephant Reserve?
	2.5 Is the ER integrated into wider ecological network at the landscape level to include corridors for elephant movement?
	2.6 Does the ER safeguard the threatened biodiversity values, most vital for long term conservation of elephants?
	2.7 Are stakeholders including communities given an opportunity to participate in planning?
	2.8 Are habitat management programmes systematically planned and monitored?
	2.9 Does the ER have an adequate protection strategy?
	2.10 Does the ER have an action plan for management (including compensation for Loss) of human-elephant conflicts?

<i>Elements</i>	Headline Indicators
3. Input	3.1 Are personnel adequate, well organised and deployed with access to adequate resources in the ER?
	3.2 Are resources (communication, equipment, infrastructure etc.) adequate, well distributed and managed with desired access?
	3.3 Are financial resources both state and central linked to priority actions and are funds adequate, released timely and utilized?
	3.4 Does the ER have adequate manpower and other resources to carry out enforcement actions?
	3.5 What level of resources is provided by civil society organization?
4. Process	4.1 Does the management units of ER have trained manpower resources for effective management?
	4.2 Does the staff performance of management units of ER, linked to achievement of management objectives?
	4.3 Does the ER encourage stakeholder's participation in Management activities?
	4.4 Is the ER conducting veterinary surveillance and monitoring disease in the landscape?
	4.5 Is there a responsive system for handling complaints and comments about ER management?
	4.6 Does ER management addresses the livelihood issues of resource dependent communities?
	4.7 Does the ER have captive facility for orphan and conflict elephant population?
	4.8 Does the ER use innovative techniques/ technologies for management (conservation, education, research, rescue and rehabilitation) efforts?
	4.9 Does the ER have necessary support structure for management (including compensation for loss) of Human Elephant conflict?
	4.10 Does the ER manage the water resources including wetlands appropriately?
5. Output	5.1 Is adequate information on ER management publicly available?
	5.2 Are visitor services (tourism and interpretation) and facilities appropriate and adequate?
	5.3 Are research/ monitoring related trends systematically evaluated, routinely reported and used to improve management?

<i>Elements</i>	Headline Indicators
	5.4 Is there a systematic maintenance schedule and funds in place for management of infrastructure/assets?
	5.5 Is the habitat management programme executed, monitored, evaluated as planned?
	5.6 Is the fire management program executed, monitored, evaluated as per protocol ?
	5.7 Does the ER show preparedness to respond to emergencies arising during Human-elephant conflict, occurrence of fires, floods and natural disasters?
6. Outcomes	6.1 Are populations of elephants declining, stable or increasing ?
	6.2 Has the ER been able to manage the Human-Elephant conflict?
	6.3 Have the threats to the ER due to poaching, habitat degradation (weeds, fire, fragmentation etc) and infrastructure development pressures being reduced/ minimized ?
	6.4 Does the ER address the organization goals for human resource development ?
	6.5 Does the ER education and awareness programme enhance visitor-learning experience?
	6.6 Are local communities supportive of ER management?
	6.7 Are research outcomes relevant and support conservation?
	6.8 Does the ER consciously manage activities adapting to Climate Change and disaster risk reduction?

The MEE teams shall visit all the assigned Elephant Reserves for conducting MEE as per the prescribed assessment criteria and complete the MEE Score Card. In addition to the site reports the Teams shall also send a 2-page SWOT based report on each ER covering, (a) Management Strengths; (b) Management Weaknesses and (c) Actionable Points and Strategy. It is possible that in some ER, one or more of the criteria and indicators will not qualify for evaluation, then that question will not be marked or taken into account in total scoring.

3.3 SCORING SYSTEM

Each question shall be marked in five categories viz., Poor, Fair, Good and Very Good as per following rating scale:

<i>Rating</i>	<i>Individual score</i>	<i>Maximum Marks</i>	<i>Rating Scale</i>
<i>Poor or requires substantial improvement</i>	2.5	Upto 139	upto 39%
<i>Fair</i>	5	140 to 209	from 40 to 59%
<i>Good</i>	7.5	210 to 262	from 60 to 74%
<i>Very Good</i>	10	263 to 395	from 75 to 89%
<i>Outstanding</i>	-	396 and above	from 90% and above

The evaluator shall have to fill a table for filling of marks of all 44 indicators. As each questions have maximum of 10 marks, 440 will be the maximum score and evaluator shall assign overall score and percentage as per scorecard given in Table below.

Table: Score Card to be filled for each ER

<i>Framework Element Number</i>	<i>Framework Element Name</i>	<i>Number of Questions (a)</i>	<i>Maximum Mark per question (b)</i>	<i>Total (a x b)</i>	<i>Marks obtained for the Element</i>	<i>Overall Score</i>
1.	Context	04	10	40		Marks obtained/ Total Marksx100 = %
2.	Planning	10	10	100		
3.	Inputs	05	10	50		
4.	Process	10	10	100		
5.	Outputs	07	10	70		
6.	Outcomes	08	10	80		
Total		44		440		

MEE - ER



MEE - ELEPHANT RESERVES

CHAPTER 4
ASSESSMENT
FRAMEWORK AND
CRITERIA

CHAPTER FOUR

ASSESSMENT FRAMEWORK AND CRITERIA

1. CONTEXTS

CONTEXT				
1.1 Are the values of the ER defined, assessed and documented to secure the long-term conservation of elephants?				
Assessment criteria	Rating/Score	(Tick √)	Reference document(s)/ photos	Remarks
Values not systematically defined, assessed and documented.	Poor (Score 2.5)			
Values generally defined, but not systematically assessed and documented.	Fair (Score 5)			
Most values defined, assessed and systematically documented.	Good (Score 7.5)			
All Values clearly defined, assessed and systematically formulated and well documented.	Very good (Score 10)			
<p>Explanatory note: Values would include the significance of ERs with respect to Elephant ecology, behavior, seasonal movement and migration.</p> <p>Indicative reference document: 1) Context of declaring area as ER and its present status - Gazette notification and associated documents 2) TCP 3) Management Plan 4) Working plan 5) Other Plans 6) Scientific information (research publication\ reports\ articles)</p>				

CONTEXT

1.2 Are the threats to the ER identified, assessed and documented in the ER landscape?

Assessment criteria	Rating/Score	(Tick✓)	Reference document(s)/ photos	Remarks
Threats not systematically identified, assessed and documented.	Poor (Score 2.5)			
Threats generally identified but not systematically assessed and documented.	Fair (Score 5)			
Most threats systematically identified, assessed and documented	Good (Score 7.5)			
All threats systematically identified and assessed and well documented.	Very good (Score 10)			

Explanatory note: This assessment should be based on number, nature and extent of threats. Threats within and outside ER should both be considered. Impacts, if any on the population abundance of elephants may be indicated. Elephant specific prescription in planning document will indicate the mitigation of threats to the elephants.

Indicative Reference document: 1) TCP\Management Plan\Working plan\Other Plans\Scientific information (research publication\ reports\ articles 2) Anthropogenic pressure from villages\human settlement (no. of villages, human and livestock population, illegal removal of bio-mass 3) Developmental projects 4) Status of Invasive species 5) Fire occurrence and vulnerability 6) Water bodies degradation 7) Elephant mortality and reasons

CONTEXT

1.3 Is there inter/intra sectoral coordination between adjoining administrative units across the district and states of the elephant reserve for managing elephant population?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
ER lacks well managed coordination for managing elephant population	Poor (Score 2.5)			
ER has some level of coordination for managing elephant population	Fair (Score 5)			
ER has good coordination for managing elephant population	Good (Score 7.5)			
ER has well-defined and effective coordination for managing elephant population	Very good (Score 10)			

Explanatory note: The assessment should take into account the level of coordination between various administrative units including district level, other line departments (revenue, panchayat, police, highways, railways, electricity, agriculture and animal husbandry etc. And amongst the state for conservation and management of elephant in the ER landscape.

Indicative reference document: 1) Mechanism of coordination prescribed in plans. 2) Minutes of the various departmental/interdepartmental coordination meeting 3) Frequency of such meetings 4) Follow up actions

CONTEXT

1.4 Is the ER management able to limit anthropogenic and development pressure?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
The ER has extensive human, biotic and development pressure.	Poor (Score 2.5)			
The ER has some human, biotic and development pressure.	Fair (Score 5)			
The ER has little human, biotic and development pressure.	Good (Score 7.5)			
The ER has no human, biotic and development pressure.	Very good (Score 10)			

Explanatory note: 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. Extent of development pressure (linear infrastructure, hydro-electric projects, mining and rural/urban development projects close and within ER. Number of development infrastructure project since last assessment and number of mitigation projects /activities implemented since last assessment must be considered

Indicative Reference document: 1) TCP\Management Plan\Working plan\Other Plans\Scientific information (research publication\ reports\ articles 2) Anthropogenic pressure from villages\human settlement (number of villages, human and livestock population, illegal removal of bio-mass 3) Developmental projects and compliance of conditions. 4) Status of Invasive species 5) Fire occurrence and vulnerability 6) Water bodies degradation 7) Elephant mortality and reasons

2. PLANNING

PLANNING				
2.1 Is the ER properly identified and demarcated to achieve the management objectives?				
Assessment criteria	Rating/Score	(Tick,√)	Reference document(s)/ photos	Remarks
Site not appropriately identified and demarcated.	Poor (Score 2.5)			
Site generally identified but poorly demarcated	Fair (Score 5)			
Site systematically identified but largely demarcated	Good (Score 7.5)			
Site identified, delineated and well demarcated.	Very good (Score 10)			
<p>Explanatory note: Assessments done for identifying, delineation of boundaries and demarcation should be considered. The elephant landscape should be identified appropriately to include ecological contiguity of habitats. The landscape should cover functional habitats for Elephant Conservation, Co-existence and conflict management areas/hotspots.</p> <p>Indicative Reference document: Gazette notifications, National HWC mitigation strategy and action plan, guidelines for mitigation of HEC, National elephant conservation action plan, Right of Passage and corridor plans, Elephant Reserves of India – An Atlas.</p>				

PLANNING

2.2 Does the existing plans have strategies (TCP, Management plan, Working plan and Zonal Plans (Eco-sensitive Zones)) to guide and steer the goals of elephant conservation in the reserve?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
The existing plans do not have any strategic guidance to steer and achieve the goals of elephant conservation in the reserve.	Poor (Score 2.5)			
Only few plans have general strategic guidance to steer and achieve the goals of elephant conservation in the reserve.	Fair (Score 5)			
Many plans have specific strategic guidance to steer and achieve the goals of elephant conservation in the reserve.	Good (Score 7.5)			
All the plans have adequate strategic guidance to steer and achieve the goals of elephant conservation in the reserve.	Very good (Score 10)			

Explanatory note: The existing plans like TCP, Management plan, Working plan, Zonal Plan should be evaluated for having site-specific strategies for Elephant conservation.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan.

PLANNING

2.3 Is the Management Plan (TCP, Management plan, working plan and Zonal Plan) routinely and systematically updated?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
No process in place for systematic review and updating of TCP, Management plan, Working plan and Zonal Plan	Poor (Score 2.5)			
TCP, Management plan, working plan and Zonal Plan sometimes updated in adhoc manner.	Fair (Score 5)			
TCP, Management plan, working plan and Zonal Plan routinely and systematically updated.	Good (Score 7.5)			
TCP, Management plan, working plan and Zonal Plan routinely, systematically and scientifically updated through a participatory process.	Very good (Score 10)			

Explanatory note: The assessment should take into account the revision/revisiting of the management plans to update information on elephants and other aspects.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan.

PLANNING

2.4 Is the institutional planning and monitoring framework of the ERs developed to address the threats in the elephant Reserve?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
ER lacks coordinated institutional planning and monitoring framework prescribed in the management and action plan.	Poor (Score 2.5)			
ER has a weak coordinated institutional planning and monitoring framework prescribed in the management and action plan.	Fair (Score 5)			
ER has a partial coordinated institutional planning and monitoring framework prescribed in the management and action plan.	Good (Score 7.5)			
ER has a strong coordinated institutional planning and monitoring framework prescribed in the management and action plan.	Very good (Score 10)			

Explanatory note: This assessment will take into account the institutional setup for monitoring and follow up actions in the management planning in the ERs.

Indicative Framework documents: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. National Elephant Conservation Action Plan, National strategy and Action Plan for HWC and Elephant Task force report (Gajah)

PLANNING

2.5 Is the ER integrated into wider ecological network at the landscape level to include corridors for elephant movement?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
ER not integrated into a wider ecological network/ landscape.	Poor (Score 2.5)			
Some limited attempts to integrate the ER into an ecological network/ landscape.	Fair (Score 5)			
ER is generally quite well integrated into an ecological network/ landscape.	Good (Score 7.5)			
ER is fully integrated into a wider ecological network/ landscape.	Very good (Score 10)			

Explanatory note: Assessment needs to consider the scope of opportunities in the landscape scale that exist for setting a wider ecological network (corridors), its identification and protection. What actions are planned/implemented for their security? Have the TCP, Management plan, Forest Working Plan, Forest Development Corporation plan and Biosphere plans within the identified landscapes taken cognizance of such new requirement?

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan.

PLANNING

2.6 Does the ER safeguard the threatened biodiversity values, most vital for long term conservation of elephants?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Sites does not safeguard the threatened biodiversity values.	Poor (Score 2.5)			
Sites safeguards a few threatened biodiversity values.	Fair (Score 5)			
Sites safeguards a large number of threatened biodiversity values.	Good (Score 7.5)			
Sites safeguards all threatened biodiversity values.	Very good (Score 10)			

Explanatory note: This assessment takes into account the biodiversity values specially those impacting elephant conservation and management and safeguards in place to mitigate threats.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan.

PLANNING

2.7 Are stakeholders including communities given an opportunity to participate in planning?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Little, if any opportunity for stakeholder participation in planning.	Poor (Score 2.5)			
Stakeholders participate in some planning.	Fair (Score 5)			
Stakeholders participate in most planning processes.	Good (Score 7.5)			
Stakeholders routinely and systematically participate in all planning processes.	Very good (Score 10)			

Explanatory note: This assessment should take into account the participation of stakeholders in planning and continuous interaction, dissemination and sharing of information.

Indicative Reference Document: ICP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan.

PLANNING

2.8 Are habitat management programmes systematically planned and monitored?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Habitat restoration programmes are entirely adhoc.	Poor (Score 2.5)			
Habitat Restoration programmes have limited planning and monitoring inputs	Fair (Score 5)			
Habitat restoration programmes are generally well planned and monitored.	Good (Score 7.5)			
Habitat restoration programmes are thoroughly planned and monitored.	Very good (Score 10)			

Explanatory note: This assessment should be primarily based on habitat management programmes for amelioration of the habitats of elephants

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan.

PLANNING

2.9 Does the ER have an adequate protection strategy?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
ER does not have any protection strategy.	Poor (Score 2.5)			
ER has a minimal and adhoc protection strategy.	Fair (Score 5)			
ER has a well drawn but not pragmatic protection strategy	Good (Score 7.5)			
ER has a comprehensive and an effective protection strategy.	Very good (Score 10)			

Explanatory note: This assessment takes *inter-alia* into account the extent and nature of threats, and plans to address such threats by setting up adequate number of patrolling camps in vulnerable areas, organizing foot and mobile patrolling, with sufficient available manpower, supported by equipments, infrastructure and fire arms. Besides this the nature of terrain, levels of difficulties, practicability of area coverage, readiness to contain specific threats with necessary support and facilities should be considered. The coordination with other wings of the Forest Department/ Police/ Customs etc and its effectiveness needs to be assessed.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan.

PLANNING

2.10 Does the ER have an action plan for management (including compensation for loss) of human-elephant conflicts?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
ER does not have any strategy/action plan for management of conflict.	Poor (Score 2.5)			
ER has minimal and adhoc strategy/action plan for management of conflict.	Fair (Score 5)			
ER has a general strategy/action plan for management of conflict.	Good (Score 7.5)			
ER has a comprehensive and effective strategy/action plan for management of conflict.	Very good (Score 10)			

Explanatory note: This assessment takes *inter-alia* into account the extent and nature of HEC, and plans to address such threats by setting up adequate number of squads (primary response team/rapid response team/community based response teams) in vulnerable areas, organizing foot and mobile patrolling, with sufficient available manpower, supported by equipments, infrastructure and fire arms. The coordination with other wings of the Forest Department/ Police/ Customs etc and setting up of coordination committee at District and state level and its effectiveness needs to be assessed. Further to be considered are the mitigation measures envisaged including preventive measures/deterrents and compensation mechanism for loss of life, injury and damage to property, crop insurance and community based eco-development activities.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. National HWC mitigation strategy and action plan, guidelines for mitigation of HEC, National elephant conservation action plan and corridor plans

3. INPUT

INPUT				
3.1 Are personnel adequate, well organised and deployed with access to adequate resources in the ER?				
Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Few, if any, personnel explicitly allocated for ER management.	Poor (Score 2.5)			
Some personnel explicitly allocated for ER management but not well organized with minimal resources and not linked to meet management objectives.	Fair (Score 5)			
Many personnel explicitly allocated and well organized with optimum resources, linked to meet substantial management objectives.	Good (Score 7.5)			
Adequate personnel explicitly allocated and fully organized with adequate to meet all management objectives.	Very good (Score 10)			
<p>Explanatory note: The assessment should take into account the staff requirement of the ER and its deployment, their qualification, administrative and financial powers. The evaluator should look whether the staff deployed are permanent or contractual and deployed as per planning norms (TCP, Management plan, Working plan), access to computers, internet, digital devices for execution of daily duties, communication and updation of knowledge.</p> <p>Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan.</p>				

INPUT

3.2 Are resources (communication, equipment, infrastructure etc.) adequate, well distributed and managed with desired access?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Few, if any, resources explicitly allocated for ER management.	Poor (Score 2.5)			
Some resources explicitly allocated for ER management but not systematically linked to management objectives.	Fair (Score 5)			
Some resources explicitly allocated towards achievement of specific ER management objectives.	Good (Score 7.5)			
Adequate resources explicitly allocated towards achievement of specific ER management objectives.	Very good (Score 10)			

Explanatory note: This assessment should take into account the resources required for communication (wireless, vehicles etc), equipment (surveillance equipment, GPS, fire arms ammunition, disaster management equipment etc) and infrastructure support including road network, anti-poaching camps, check posts and barriers etc envisaged in the plans and those existing and their regular maintenance as per prescribed schedule.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. Stores, building and maintenance registers

INPUT

3.3 Are financial resources both state and central linked to priority actions and are funds adequate, released timely and utilized?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Resource allocation is adhoc, funds are inadequate, seldom released in time and not utilized. Unable to raise additional funds	Poor (Score 2.5)			
Some specific allocation for management of priority action. Funds are inadequate and there is some delay in release, partially utilized. Some funds raised additionally and utilized.	Fair (Score 5)			
Comprehensive planning and allocation that meets the most important objectives. Generally funds released with not much delay and mostly utilized. Substantial funds raised additionally and utilized,	Good (Score 7.5)			
Comprehensive planning and allocation of resources for attainment of most objectives. Funds generally released on-time and are fully utilized. Adequate funds raised additionally and utilized,	Very good (Score 10)			

Explanatory note: Obtain details of funds released by State and MoEFCC to meet the budgetary requirement and their utilization by ER in the last 3 years. Also comment on the problems associated with funds and their mitigation.

Indicative Reference Document: Annual Plan of Operation, Budget allocation, MOU with Companies under CSR, MOU with other donors. Budgetary allocation forecast in TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan.

INPUT

3.4 Does the ER have adequate manpower and other resources to carry out enforcement actions?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
The ER has a weak enforcement system, manpower, infrastructure support to protect the ER.	Poor (Score 2.5)			
The ER has a adhoc enforcement system with limited manpower and infrastructure support to protect the ER.	Fair (Score 5)			
The ER has a well planned enforcement system with adequate manpower, infrastructure support but poorly monitored to protect the ER.	Good (Score 7.5)			
The ER has a well planned and strong enforcement system with adequate manpower, infrastructure support and well monitored to protect the ER.	Very good (Score 10)			

Explanatory note: This assessment takes into account the enforcement mechanism with strong legal backing to control elephant poaching with adequate manpower and resources for prosecution. The number of poaching case detected and action taken for investigation, documentation and follow up in courts and their pendency needs to be considered.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan and Wildlife crime investigation and prosecution data.

INPUT

3.5 What level of resources is provided by civil society organization (CSO)?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
CSOs contribute nothing for the management of the site.	Poor (Score 2.5)			
CSOs make some contribution for management of the site but opportunities for collaboration are not systematically explored.	Fair (Score 5)			
CSOs contributions are systematically sought and negotiated for the management of some site level activities.	Good (Score 7.5)			
CSOs contributions are systematically sought and negotiated for the management of many site level activities.	Very good (Score 10)			

Explanatory note: Details of contributions (cash/kind) made by the CSOs(NGO, CSR, university, institutes etc) in the last 3 years may be collected.

Indicative Reference Document: MOU with Companies under CSR, MOU with other donors.

4. PROCESS

PROCESS				
4.1 Does the management units of ER have trained manpower resources for effective management?				
Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Very few trained officers and frontline staff in the ER	Poor (Score 2.5)			
Few trained officers and frontline staff, who are posted in the ER	Fair (Score 5)			
A large number of trained officers and frontline staff are posted in the ER.	Good (Score 7.5)			
All trained managers and frontline staff posted in the ER	Very good (Score 10)			
<p>Explanatory note: The training imparted to staff in various categories including basic, specialized and advance training followed by refresher training needs to be considered. The percentage 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) Veterinary staff, mahawats and cavadies and others will indicate the adequacy of the capacity building in the organization.</p> <p>Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. Training need assessment Plan and MOU for training with reputed institute.</p>				

PROCESS

4.2 Does the staff performance of management units of ER, linked to achievement of management objectives?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
No linkage between staff performance management and management objectives.	Poor (Score 2.5)			
Some linkage between staff performance management and management objectives, but not consistently or systematically assessed.	Fair (Score 5)			
Performance management for most staff is directly linked to achievement of relevant management objectives.	Good (Score 7.5)			
Performance management of all staff is directly linked to achievement of relevant management objectives.	Very good (Score 10)			
<p>Explanatory note: The work plan drawn for individuals and performance assessment based on the criteria is to be considered. Reward/ appreciation for any outstanding performance in the last 3 years?</p> <p>Indicative Reference Document: Work Plan document, grant of awards/rewards orders to staff. Annual Appraisal documents</p>				

PROCESS

4.3 Does the ER encourage stakeholders participation in management activities?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Little or no public participation in ER management.	Poor (Score 2.5)			
Opportunistic public participation in some of the relevant aspects of ER management.	Fair (Score 5)			
Systematic public participation in most of the relevant aspects of ER management.	Good (Score 7.5)			
Comprehensive and systematic public participation in all important and relevant aspects of ER management.	Very good (Score 10)			

Explanatory note: The stakeholders are a large section of people including personnel, school and college students, teachers and professors, corporate employees, caterers, transport operators, media representative and naturalists and general enthusiasts who volunteer to participate in management activities. Their participation in ER management is to be considered.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (reference on involvement of stakeholders)

PROCESS

4.4 Is the ER conducting veterinary surveillance and monitoring disease in the landscape?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
The ER does not have access and networking with veterinary institution and support staff for conducting follow up preventive medicine protocol, disease surveillance, control of infectious disease screening and has no medical records.	Poor (Score 2.5)			
The ER has limited access and networking with veterinary institution and has few support staff for conducting few preventive medicine protocol, disease surveillance control of infectious disease screening but lacks in maintenance of medical record.	Fair (Score 5)			
The ER has substantial access and networking with veterinary institution and has most support staff for conducting adequate preventive medicine protocol, disease surveillance control of infectious disease screening and has maintained few medical record.	Good (Score 7.5)			
The ER has full access and networking with veterinary institution and has all support staff for comprehensive preventive medical protocol, disease surveillance control of infectious disease screening and maintains medical record systematically.	Very good (Score 10)			

Explanatory note: This assessment takes into account the adherence to preventive medicine protocols including surveillance procedure and control, infectious disease screening and maintenance of medical records.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (prescription on disease management and control)

PROCESS

4.5 Is there a responsive system for handling complaints and comments about ER management?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
No systematic approach to handling complaints.	Poor (Score 2.5)			
Complaints handling system operational but not responsive to individual issues and limited follow up provided.	Fair (Score 5)			
Coordinated system logs and responds effectively to most complaints.	Good (Score 7.5)			
All complaints systematically logged in coordinated system and timely response provided with minimal repeat complaints.	Very good (Score 10)			
<p>Explanatory note: The maintenance of complaint register, action on petitions and complaints and opportunity for recording feed back, number of queries made and response thereof under the Right to Information (RTI), Act in the last 3 years may be considered.</p> <p>Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (prescription on complaint redressal) GO on complaint registration and action.</p>				

PROCESS

4.6 Does ER management addresses the livelihood issues of resource dependent communities?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
No livelihood issues are addressed by ER management.	Poor (Score 2.5)			
Few livelihood issues are addressed by ER management.	Fair (Score 5)			
Substantial livelihood issues are addressed by ER management.	Good (Score 7.5)			
Livelihood issues of resource dependent communities especially women are addressed effectively by ER managers.	Very good (Score 10)			

Explanatory note: The JFM and Eco-development initiatives under State/ Central schemes and its implementation specially those related to livelihood issues in the ER are to be examined.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (reference to JFM and eco-development)

PROCESS

4.7 Does the ER have captive facility for orphan and conflict elephant population?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
ER does not have any captive elephant management facility.	Poor (Score 2.5)			
ER does have a basic captive elephant management facility without veterinary support and equipment.	Fair (Score 5)			
ER does have captive elephant management facility with equipment but without veterinary support.	Good (Score 7.5)			
ER does have an adequate captive elephant management facility with equipment, veterinary support and transport facility.	Very good (Score 10)			

Explanatory note: This assessment will take into account rescue and rehabilitation facility, veterinary support and equipment including kraal and enrichment.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (reference to HWC and captive facility)

PROCESS

4.8 Does the ER use innovative techniques/ technologies for management (conservation, education, research, rescue and rehabilitation) efforts?

Assessment criteria	Rating/Score	(Tick √)	Reference document(s)/ photos	Remarks
ER does not use any special technology for any sphere of management	Poor (Score 2.5)			
ER uses technological innovation in few spheres of management	Fair (Score 5)			
ER uses technological innovation in most spheres of management	Good (Score 7.5)			
ER uses technological innovation in all spheres of management	Very good (Score 10)			

Explanatory note: The assessment should take into account the smart applications for tracking and monitoring of elephants, surveillance and enforcement against poachers, fire mapping and habitat evaluation and management. Use of drones and UAVs, visitor friendly interpretation and education smart applications(touch screen kiosk and 3D shows etc)

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (reference on use of technology)

PROCESS

4.9 Does the ER have necessary support structure for management (including compensation for loss) of Human Elephant conflict?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Human-elephant conflicts are rampant with no support infrastructure	Poor (Score 2.5)			
ER has been able to mitigate few human-wildlife conflicts and has basic/little support infrastructure	Fair (Score 5)			
ER has been able to mitigate many human-wildlife conflicts and has sufficient support infrastructure	Good (Score 7.5)			
ER has been able to comprehensively mitigate human-wildlife conflicts and have adequate support infrastructure.	Very good (Score 10)			

Explanatory note: The assessment should take into account the mitigation of Human-Elephant conflict based on sound planning and availability of human resource, infrastructure and support including compensation for crop damage, injury and death of humans.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan (Reference to HWC and captive facility).

PROCESS

4.10 Does the ER manage the water resources including wetlands appropriately?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
ER manages the water resources in adhoc manner.	Poor (Score 2.5)			
ER manages the water resources in sub-optimal/limited manner.	Fair (Score 5)			
ER manages the water resources in optimal and planned manner.	Good (Score 7.5)			
ER manages the water resources in most optimal and sustainable manner.	Very good (Score 10)			

Explanatory note:The assessment should take into account the hydrology of the tract, management of wetlands, the distribution of water holes, recharging of aquifers and artificial rejuvenation during lean season. Use of innovative technology for conservation of water.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan (Reference on water management).

5. OUTPUT

OUTPUT				
5.1 Is adequate information on ER management publicly available?				
Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Little or no information on ER management publicly available.	Poor (Score 2.5)			
Publicly available information is general and has limited relevance to management accountability and the condition of public assets.	Fair (Score 5)			
Publicly available information provides detailed insight into major management issues for ER	Good (Score 7.5)			
Comprehensive reports are routinely provided on management and condition of public assets in ER	Very good (Score 10)			
<p>Explanatory note: The availability of websites and use of print and social media for dissemination of information and its management with respect to comprehensiveness of information, and its periodical updation is to be considered.</p> <p>Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (reference to Education and dissemination of information)</p>				

OUTPUT

5.2 Are visitor services (tourism and interpretation) and facilities appropriate and adequate?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Visitor services and facilities are adhoc and/or threaten ER values.	Poor (Score 2.5)			
Visitor services and facilities limited and do not threaten ER values.	Fair (Score 5)			
All visitor services and facilities are generally adequate and most enhance ER values.	Good (Score 7.5)			
All visitor services and facilities are comprehensive, adequate and enhance ER values.	Very good (Score 10)			

Explanatory note: 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 assessed..

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (reference to visitor management)

OUTPUT

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

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Little or no systematic evaluation or routine reporting of trends.	Poor (Score 2.5)			
Some evaluation and reporting undertaken but neither systematic nor routine.	Fair (Score 5)			
Systematic evaluation and routine reporting of management related trends undertaken.	Good (Score 7.5)			
Systematic evaluation and comprehensive reporting of trends undertaken and attempts made at course corrections as relevant.	Very good (Score 10)			

Explanatory note: Not all sites attract projects and researchers and with exceptions, little research takes place on the site because of systemic limitations. However, monitoring of some critical issues is expected e.g. population of elephants and carnivores 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 and salient outcomes may be collected and used in awarding scores.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (section on research)

OUTPUT

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

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
No systematic inventory or maintenance schedule.	Poor (Score 2.5)			
Inventory maintenance is adhoc and so is the maintenance schedule.	Fair (Score 5)			
Systematic inventory provides the basis for maintenance schedule but funds are inadequately made available.	Good (Score 7.5)			
Systematic inventory provides the basis for maintenance schedule and adequate funds are made available.	Very good (Score 10)			

Explanatory note: The Forest code, advisories and circulars on inventory and maintenance schedules should be examined and its implementation and data records are to be assessed. Further the funds allocated and spent (Plan and Non Plan) for maintenance in last three years should be considered.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (section on inventory of equipment and infrastructure and maintenance)

OUTPUT

5.5 Is the habitat management programme executed, monitored, evaluated as planned?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Little or no systematic monitoring and evaluation and not executed as scheduled/planned	Poor (Score 2.5)			
Some evaluation and reporting undertaken but executed in adhoc manner and does not achieve the schedule/planned objectives	Fair (Score 5)			
Systematic evaluation and routine follow up but execution meets some of the schedules/ planned objectives	Good (Score 7.5)			
Systematic evaluation and comprehensive follow up undertaken and schedules/ planned objectives adequately achieved.	Very good (Score 10)			

Explanatory note: This assessment takes into account the habitat amelioration works (ecological restoration of degraded areas, rejuvenating water bodies and eradication of weeds) and their monitoring following State and MoEFCC guidelines.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (section on habitat management).

OUTPUT

5.6 Is the fire management program executed, monitored, evaluated as per protocol ?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Little or no systematic monitoring and evaluation and not executed as scheduled/planned	Poor (Score 2.5)			
Some evaluation and reporting undertaken but executed in adhoc manner and does not achieve the schedule/planned objectives	Fair (Score 5)			
Systematic evaluation and routine follow up but execution meets some of the schedules/ planned objectives	Good (Score 7.5)			
Systematic evaluation and comprehensive follow up undertaken and schedules/ planned objectives adequately achieved.	Very good (Score 10)			

Explanatory note: This assessment takes into account the fire management planning, extent and occurrence of fire in the landscape its mapping and monitoring. The fire management protocols including audits and readiness to respond should be considered.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan.and Biosphere reserve plan. (section on fire management)

OUTPUT

5.7 Does the ER show preparedness to respond to emergencies arising during Human-elephant conflict, occurrence of fires, floods and natural disasters?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
ER does not show any preparedness to respond to emergencies	Poor (Score 2.5)			
ER show some preparedness to respond to emergencies	Fair (Score 5)			
ER is prepared to respond to most emergencies and disaster situations	Good (Score 7.5)			
ER is fully prepared to respond to all emergencies and disaster situations	Very good (Score 10)			

Explanatory note: This assessment takes into account the ER efforts and readiness to meet any emergency situation which include focus on safety programs based on sound planning. Prevention, Response and Recovery, and related initiatives, including sufficient equipment, training, practice drills, rapid response teams, mobility and communication, coordination with external agency, command and control etc. Also to be assessed are prevention measures during disease outbreaks, and weather extremes.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (section on disaster management)

6. OUTCOMES

OUTCOMES				
6.1 Are populations of elephants declining, stable or increasing ?				
Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Elephant population declining	Poor (Score 2.5)			
Elephant populations stable	Fair (Score 5)			
Elephant populations increasing	Good (Score 7.5)			
Elephant population increasing and demography known	Very good (Score 10)			
<p>Explanatory note:* This assessment should take into account the population dynamics of various clans in the ER and changes observed in the number of calves born and survived, healthy age gradation and adult sex ratio, breeding females, mortality and presence of tuskers in the population. The population trends over the years and its dynamics is to be considered.</p> <p>Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (section on population estimation and monitoring), All India Synchronized Elephant census report - XXXX, 2012, 2017 State elephant population estimation, research papers and articles.</p>				

OUTCOMES

6.2 Has the ER been able to manage the Human-Elephant conflict?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
HEC have not reduced over the years but have enhanced due to poor mitigation measures	Poor			
HEC have slightly decreased due to adhoc mitigation measures	Fair			
HEC have sufficiently decreased due to better mitigation measures	Good			
HEC have been effectively contained due to efficient mitigation measures.	Very good			

Explanatory note: This assessment takes into account the actions taken in the elephant reserves for reduction/minimization of elephant conflict. The nature, extent and the mitigation of the conflict reported in ER (no. of incidents, extent of damage, effectiveness of barriers, loss of lives and injuries to humans and damage to property and crops, mortality of elephants and retaliatory killings)

Indicative Reference Document: HWC monitoring reports, Mortality of Animals, Compensation paid

OUTCOMES

6.3 Have the threats to the ER due to poaching, habitat degradation (weeds, fire, fragmentation etc) and infrastructure development pressures being reduced/ minimized ?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Threats to the ER have not been abated but have enhanced.	Poor			
Some threats to the ER have been abated	Fair			
Most threats to the ER have been abated. The few remaining are vigorously being addressed.	Good			
All threats to the ER have been effectively contained	Very good			

Explanatory note: This assessment takes, into account the occurrence of threats related to poaching, habitat degradation (weeds, fire and fragmentation), infrastructure development projects, and mining

Indicative Reference Document: Data on poaching, mortality of animals, habitat destruction and occurrence of weeds and water stress, development of infrastructure and mining undermining biodiversity conservation.

OUTCOMES

6.4 Does the ER address the organization goals for human resource development ?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Does not provide any opportunity for capacity building and training, developing leadership, assured career progression and raising skill and motivation levels of staff	Poor (Score 2.5)			
Provides some opportunity for capacity building and training, developing leadership, assured career progression and raising skill and motivation levels of staff	Fair (Score 5)			
Provides adequate opportunity for capacity building and training, developing leadership, assured career progression and raising skill and motivation levels of staff	Good (Score 7.5)			
Provides all opportunity for capacity building and training, developing leadership, assured career progression and raising skill and motivation levels of staff and addressing welfare issues	Very good (Score 10)			

Explanatory note: The assessment should take into account the management initiatives towards providing an environment for leadership, development of skills and raising confidence and motivational levels of staff and addressing welfare issues pertaining to career progression, social welfare etc.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (section on HRD), Reports on staff welfare measures and grant of rewards/awards to staff

OUTCOMES

6.5 Does the ER education and awareness programme enhance visitor-learning experience?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
ER does not provide learning opportunities to inspire and generates awareness through education programs interactive displays and interpretation center, distribution of publication and extension activities.	Poor (Score 2.5)			
ER provides some learning opportunities to inspire and generates awareness through education programs interactive displays and interpretation center, distribution of publication and extension activities.	Fair (Score 5)			
ER provides adequate learning opportunities inspire and generates awareness through education programs, interactive displays and interpretation center, distribution of publication and extension activities.	Good (Score 7.5)			
ER provides full learning opportunities to inspire and generates awareness through education programs interactive displays and interpretation center, distribution of publication and extension activities.	Very good (Score 10)			

Explanatory note: This assessment takes into account the visitor learning experience and meeting their expectation through number of educational programmes, guided tours, illustrated species talks, visit to interactive displays and interpretation center, literature provided at the entrance and in house education program and extension activities and distribution of resource material for education, use of website and visitor feed back mechanism.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (section on Education and visitor management and its implementation)

OUTCOMES

6.6 Are local communities supportive of ER management?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
Local communities are hostile.	Poor (Score 2.5)			
Some are supportive.	Fair (Score 5)			
Most locals are supportive of ER management.	Good (Score 7.5)			
All local communities supportive of ER management.	Very good (Score 10)			

Explanatory note: This assessment should take into account the coordination, interaction and support from the local communities and action and activities taken under JFM/ eco-development programmes to enlist their support. The reason for disenchantment of communities due to managerial neglect or low managerial efforts should be identified and any action taken for restoration/ confidence building measures should be considered. The inputs provided by NGOs towards garnering their support is also relevant.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (section on JFM and ecodevelopments) Evaluation Report on JFM and Ecodevelopment initiatives,

OUTCOMES

6.7 Are research outcomes relevant and support conservation?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
ER does not have a research plan and has not participated, supported any research study and has not assimilated any research findings in management of ER	Poor (Score 2.5)			
ER does not have a research plan and has participated, supported few research studies but not assimilated the findings in management of ER.	Fair (Score 5)			
ER has a research plan and have participated and supported in many research studies but not assimilated the findings in management of ER.	Good (Score 7.5)			
ER has a comprehensive research plan and have participated and supported in many research studies and assimilated the findings in management of ER	Very good (Score 10)			

Explanatory note: This assessment takes into account the research studies conducted on relevant and priority topics as per the plan, and assimilated the research findings in management of ER.

Indicative Reference Document: TCP, Management plan, Working plan, Zonal plan, Forest corporation management plan and Biosphere reserve plan. (Section on research), Report/Articles/Documents on research in the landscape

OUTCOMES

6.8 Does the ER consciously manage activities adapting to Climate Change and disaster risk reduction?

Assessment criteria	Rating/Score	(Tick ✓)	Reference document(s)/ photos	Remarks
ER does not make any effort to manage activities adapting to climate change.	Poor (Score 2.5)			
ER has made effort to manage few activities adapting to climate change.	Fair (Score 5)			
ER has made effort to manage many activities adapting to climate change.	Good (Score 7.5)			
ER has made effort to manage most activities adapting to climate change.	Very good (Score 10)			

Explanatory note: The assessment should take into account efforts in habitat amelioration works, sustainable use of energy, water supply and waste management, eco-friendly travel and transport, procurement by-sourcing local products and other innovative mechanisms to reduce carbon footprint.

Indicative Reference Document: Research Reports/Articles/ Papers/ Thesis/Dissertation/Newspaper articles on climate change in the landscape

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	04	10	40		Marks obtained/ Total Marksx100 = %
2.	Planning	10	10	100		
3.	Inputs	05	10	50		
4.	Process	10	10	100		
5.	Outputs	07	10	70		
6.	Outcomes	08	10	80		
	Total	44		440		



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