

Periodic Report - Second Cycle

Section II - Sundarbans National Park (452)

1. World Heritage Property Data

1.1 - Name of World Heritage Property

Sundarbans National Park


1.2 - World Heritage Property Details

IndiaAsia and the PacificnaturalForestsMarine & coastal4521987

1.3 - Geographic Information Table

Name	Coordinates	Property (ha)	Buffer zone (ha)	Total (ha)	Inscription year
Sundarbans National Park	21.945 / 88.896	133010	0	133010	1987
Total (ha)		133010	0	133010	

1.4 - Map(s)

Title	Date	Link to source
Map of Sunderbans Tiger Reserve	31/12/1986	

Comment

The map is being uploaded.

1.5 - Governmental Institution Responsible for the Property

Comment

Field Director, Directorate of Forests, Office of The Field Director, Sundarban Tiger Reserve, Canning Town, 24-Parganas (south) West Bengal - 743329, India Telephone/Fax +91 321-8255280/255159 E-mail sundarbantiger@gmail.com

1.6 - Property Manager / Coordinator, Local Institution / Agency

- Subrat Mukherjee
Sundarban Tiger Reserve
Field Director

1.7 - Web Address of the Property (if existing)

1. 1001wonders.org : visit this site in panophotographies - 360 x 180 degree images
2. The Official Website of Ministry of Tourism
3. Natural site datasheet from WCMC

Comment

It is available on the web address of Sundarban Biosphere Reserve - www.sundarbanbiosphere.org

1.8 - Other designations / Conventions under which the property is protected (if applicable)

Comment

As of now the property is also a part of World Network of Biosphere Reserves since 2001

2. Statement of Outstanding Universal Value

2.1 - Statement of Outstanding Universal Value / Statement of Significance

Comment

Sent separately by e-mail to Dr V B Mathur, Dean, WII

2.2 - The criteria (2005 revised version) under which the property was inscribed

(ix)(x)

2.3 - Attributes expressing the Outstanding Universal Value per criterion

Sent separately by e-mail to Dr V B Mathur, Dean, WII

2.4 - If needed, please provide details of why the Statement of Outstanding Universal Value should be revised

Already revised, to make it more people friendly

2.5 - Comments, conclusions and / or recommendations related to Statement of Outstanding Universal Value

Sent separately by e-mail to Dr V B Mathur, Dean, WII

3. Factors Affecting the Property

3.14. Other factor(s)

3.14.1 - Other factor(s)

No Comments

3.15. Factors Summary Table

3.15.1 - Factors summary table

Name	Impact	Origin
3.1	Buildings and Development	
3.1.5 Interpretative and visitation facilities		
3.2	Transportation Infrastructure	
3.2.3 Marine transport infrastructure		
3.4	Pollution	
3.4.1 Pollution of marine waters		
3.4.2 Ground water pollution		
3.4.3 Surface water pollution		
3.4.5 Solid waste		
3.5	Biological resource use/modification	
3.5.1 Fishing/collecting aquatic resources		
3.5.2 Aquaculture		
3.7	Local conditions affecting physical fabric	
3.7.1 Wind		
3.7.6 Water (rain/water table)		
3.7.8 Micro-organisms		
3.8	Social/cultural uses of heritage	
3.8.2 Society's valuing of heritage		
3.8.4 Changes in traditional ways of life and knowledge system		
3.8.6 Impacts of tourism / visitor / recreation		
3.9	Other human activities	
3.9.1 Illegal activities		
3.10	Climate change and severe weather events	
3.10.1 Storms		
3.10.2 Flooding		
3.10.5 Changes to oceanic waters		
3.10.7 Other climate change impacts		
3.11	Sudden ecological or geological events	
3.11.3 Tsunami/tidal wave		
3.11.5 Erosion and siltation/ deposition		
3.13	Management and institutional factors	
3.13.1 Low impact research / monitoring activities		
3.13.3 Management activities		
Legend	Current	Potential
	Negative	Positive
	Inside	Outside

3.16. Assessment of current negative factors

3.16.1 - Assessment of current negative factors

	Spatial scale	Temporal scale	Impact	Management response	Trend
3.2	Transportation Infrastructure				
3.2.3	Marine transport infrastructure	restricted	intermittent or sporadic	minor	low capacity
3.4	Pollution				
3.4.1	Pollution of marine waters	restricted	intermittent or sporadic	insignificant	no capacity and / or resources
3.4.3	Surface water pollution	restricted	intermittent or sporadic	minor	no capacity and / or resources

		Spatial scale	Temporal scale	Impact	Management response	Trend
3.4.5	Solid waste	restricted	intermittent or sporadic	minor	no capacity and / or resources	increasing
3.5	Biological resource use/modification					
3.5.1	Fishing/collecting aquatic resources	extensive	frequent	significant	medium capacity	static
3.5.2	Aquaculture	restricted	one off or rare	minor	low capacity	decreasing
3.7	Local conditions affecting physical fabric					
3.7.1	Wind	widespread	frequent	catastrophic	low capacity	increasing
3.7.6	Water (rain/water table)	localised	intermittent or sporadic	minor	low capacity	increasing

3.17. Comments, conclusions and / or recommendations related to factors affecting the property

3.17.1 - Comments

No Comments

4. Protection, Management and Monitoring of the Property

4.1. Boundaries and Buffer Zones

4.1.1 - Buffer zone status

There is a buffer zone

4.1.2 - Are the boundaries of the World Heritage property adequate to maintain the property's Outstanding Universal Value?

The boundaries of the World Heritage property are **adequate** to maintain the property's Outstanding Universal Value

4.1.3 - Are the buffer zone(s) of the World Heritage property adequate to maintain the property's Outstanding Universal Value?

The buffer zones of the World Heritage property are **adequate** to maintain the property's Outstanding Universal Value

4.1.4 - Are the boundaries of the World Heritage property known?

The boundaries of the World Heritage property are known by both the management authority and local residents / communities / landowners.

4.1.5 - Are the buffer zones of the World Heritage property known?

The buffer zones of the World Heritage property are **known** by both the management authority and local residents / communities / landowners.

4.1.6 - Comments, conclusions and / or recommendations related to boundaries and buffer zones of the World Heritage property

No Comments

4.2. Protective Measures

4.2.1 - Protective designation (legal, regulatory, contractual, planning, institutional and / or traditional)

Comment

It is very well legally protected under many acts and rules like Indian Forest Act, Wildlife (P) Act and Environmental Protection Act etc.

4.2.2 - Is the legal framework (i.e. legislation and / or regulation) adequate for maintaining the

Outstanding Universal Value including conditions of Integrity and / or Authenticity of the property?

The legal framework for the maintenance of the Outstanding Universal Value including conditions of Authenticity and / or Integrity of the World Heritage property provides an **adequate or better basis** for effective management and protection

4.2.3 - Is the legal framework (i.e. legislation and / or regulation) adequate in the buffer zone for maintaining the Outstanding Universal Value including conditions of Integrity and / or Authenticity of the property?

The legal framework for the maintenance of the Outstanding Universal Value including conditions of Authenticity and / or Integrity of the World Heritage property provides an **adequate or better basis** for effective management and protection

4.2.4 - Is the legal framework (i.e. legislation and / or regulation) adequate in the area surrounding the World Heritage property and buffer zone for maintaining the Outstanding Universal Value including conditions of Integrity and / or Authenticity of the property?

The legal framework for the area surrounding the World Heritage property and the buffer zone provides an **adequate or better basis** for effective management and protection of the property, contributing to the maintenance of its Outstanding Universal Value including conditions of Authenticity and / or Integrity

4.2.5 - Can the legislative framework (i.e. legislation and / or regulation) be enforced?

There is **excellent** capacity / resources to enforce legislation and / or regulation in the World Heritage property

4.2.6 - Comments, conclusions and / or recommendations related to protective measures

No Comments

4.3. Management System / Management Plan

4.3.1 - Management System

The original management plan of 1973 for the 'Sundarban Tiger Reserve' has been updated for the period 2001-2010.

Comment

The Management Plan has been re-written as Tiger Conservation Plan as per the 2006 Amendment of Wildlife Protection Act and is valid up to 2015.

4.3.2 - Management Documents

Comment

The Management Plan has been re-written as Tiger Conservation Plan as per the 2006 Amendment of Wildlife Protection Act and is valid up to 2015.

4.3.3 - How well do the various levels of administration (i.e. national / federal; regional / provincial / state; local / municipal etc.) coordinate in the management of the World Heritage Property ?

There is **excellent coordination** between all bodies / levels involved in the management of the property

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4.3.4 - Is the management system / plan adequate to maintain the property's Outstanding Universal Value ?

The management system / plan is **fully adequate** to maintain the property's Outstanding Universal Value

4.3.5 - Is the management system being implemented?

The management system is being **fully** implemented and monitored

4.3.6 - Is there an annual work / action plan and is it being implemented?

An annual work / action plan exists and **most or all activities** are being implemented and monitored

4.3.7 - Please rate the cooperation / relationship with World Heritage property managers / coordinators / staff of the following

Local communities / residents	Fair
Local / Municipal authorities	Not applicable
Indigenous peoples	Not applicable
Landowners	Not applicable
Visitors	Fair
Researchers	Fair
Tourism industry	Fair
Industry	Not applicable

4.3.8 - If present, do local communities resident in or near the World Heritage property and / or buffer zone have input in management decisions that maintain the Outstanding Universal Value?

Local communities have **some input** into discussions relating to management but no direct role in management

4.3.9 - If present, do indigenous peoples resident in or regularly using the World Heritage property and / or buffer zone have input in management decisions that maintain the Outstanding Universal Value?

No indigenous peoples are resident in or regularly using the World Heritage property and / or buffer zone

4.3.10 - Is there cooperation with industry (i.e. forestry, mining, agriculture, etc.) regarding the management of the World Heritage property, buffer zone and / or area surrounding the World Heritage property and buffer zone?

There is **little or no contact** with industry regarding the management of the World Heritage property, buffer zone and / or area surrounding the World Heritage property and buffer zone

4.3.11 - Comments, conclusions and / or recommendations related to human resources, expertise and training

No Comments

4.3.12 - Please report any significant changes in the legal status and / or contractual / traditional protective measures and management

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arrangements for the World Heritage property since inscription or the last Periodic report


The area is also protected as per the 2006 amendment of Wildlife(P) Act as CRITICAL TIGER HABITAT

4.4. Financial and Human Resources

4.4.1 - Costs related to conservation, based on the average of last five years (relative percentage of the funding sources)

Multilateral funding (GEF, World Bank, etc)	0%
International donations (NGO's, foundations, etc)	0%
Governmental (National / Federal)	100%
Governmental (Regional / Provincial / State)	0%
Governmental (Local / Municipal)	0%
In country donations (NGO's, foundations, etc)	0%
Individual visitor charges (e.g. entry, parking, camping fees, etc.)	0%
Commercial operator payments (e.g. filming permit, concessions, etc.)	0%
Other grants	0%

4.4.2 - International Assistance received from the World Heritage Fund (USD)

Title	Year	Amount	Link to source
Contribution to the Preparation of a Project for Promoting Co-operation between the Sundarbans National Park (India) and The Sundarbans (Bangladesh)	2001	20000.00	
Total		20000	

Comment

In last 5 years, there was no International Assistance.

4.4.3 - Is the current budget sufficient to manage the World Heritage property effectively?

The available budget is **acceptable** but could be further improved to fully meet the management needs

4.4.4 - Are the existing sources of funding secure and likely to remain so?

The existing sources of funding **are secure** in the medium-term and planning is underway to secure funding in the long-term

4.4.5 - Does the World Heritage property provide economic benefits to local communities (e.g. income, employment)?

There is **some flow** of economic benefits to local communities

4.4.6 - Are available resources such as equipment, facilities and infrastructure sufficient to meet management needs?

There are **some** equipment and facilities but overall these are **inadequate**

4.4.7 - Are resources such as equipment, facilities and infrastructure adequately maintained?

There is some **ad hoc** maintenance of equipment and facilities

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4.4.8 - Comments, conclusion, and / or recommendations related to finance and infrastructure

No Comments

4.4.9 - Distribution of employees involved in managing the World Heritage property (% of total)

Full-time	90%
Part-time	10%

4.4.10 - Distribution of employees involved in managing the World Heritage property (% of total)

Permanent	90%
Seasonal	10%

4.4.11 - Distribution of employees involved in managing the World Heritage property (% of total)

Paid	100%
Volunteer	0%

4.4.12 - Are available human resources adequate to manage the World Heritage property?

A range of human resources exist, but these are **below optimum** to manage the World Heritage Property.

4.4.13 - Considering the management needs of the World Heritage property, please rate the availability of professionals in the following disciplines

Research and monitoring	Non-existent
Promotion	Non-existent
Community outreach	Non-existent
Interpretation	Non-existent
Education	Non-existent
Visitor management	Non-existent
Conservation	Non-existent
Administration	Non-existent
Risk preparedness	Not applicable
Tourism	Not applicable
Enforcement (custodians, police)	Not applicable

4.4.14 - Please rate the availability of training opportunities for the management of the World Heritage property in the following disciplines

Research and monitoring	Low
Promotion	Low
Community outreach	Low
Interpretation	Low
Education	Low
Visitor management	Low
Conservation	Low
Administration	Low
Risk preparedness	Low
Tourism	Low
Enforcement (custodians, police)	Low

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4.4.15 - Do the management and conservation programmes at the World Heritage property help develop local expertise?

No capacity development plan or programme is in place; management is implemented by external staff and skills are not transferred

4.4.16 - Comments, conclusions and / or recommendations related to human resources, expertise and training

No Comments

4.5. Scientific Studies and Research Projects

4.5.1 - Is there adequate knowledge (scientific or traditional) about the values of the World Heritage property to support planning, management and decision-making to ensure that Outstanding Universal Value is maintained?

Knowledge about the values of the World Heritage property is **sufficient** for most key areas **but there are gaps**

4.5.2 - Is there a planned programme of research at the property which is directed towards management needs and / or improving understanding of Outstanding Universal Value?

There is a **small amount** of research, but it is not planned

4.5.3 - Are results from research programmes disseminated?

Research results are **shared with local partners** but there is no active outreach to national or international agencies

4.5.4 - Please provide details (i.e. authors, title, and web link) of papers published about the World Heritage property since the last Periodic Report

Pls refer the website - www.sundarbanbiosphere.org

4.5.5 - Comments, conclusions and / or recommendations related to scientific studies and research projects

No Comments

4.6. Education, Information and Awareness Building

4.6.1 - At how many locations is the World Heritage emblem displayed at the property?

In many locations and easily visible to visitors

4.6.2 - Please rate the awareness and understanding of the existence and justification for inscription of the World Heritage property amongst the following groups

Local communities / residents	Poor
Local / Municipal authorities within or adjacent to the property	Poor
Local Indigenous peoples	Not applicable
Local landowners	Non-existent
Visitors	Excellent
Tourism industry	Average

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Local businesses and industries	Not applicable
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4.6.3 - Is there a planned education and awareness programme linked to the values and management of the World Heritage property?

There is **no education and awareness programme**, despite an identified need

4.6.4 - What role, if any, has designation as a World Heritage property played with respect to education, information and awareness building activities?

World Heritage status has **not influenced** education, information or awareness building activities

4.6.5 - How well is the information on Outstanding Universal Value of the property presented and interpreted?

The Outstanding Universal Value of the property is **not adequately** presented and interpreted

4.6.6 - Please rate the adequacy for education, information and awareness building of the following visitor facilities and services at the World Heritage property

Visitor centre	Adequate
Site museum	Adequate
Information booths	Not provided but needed
Guided tours	Poor
Trails / routes	Poor
Information materials	Adequate
Transportation facilities	Not needed
Other	Poor

4.6.7 - Comments, conclusions and / or recommendations related to education, information and awareness building

No Comments

4.7. Visitor Management

4.7.1 - Please provide the trend in annual visitation for the last five years

Last year	Major Increase (100%+)
Two years ago	Major Increase (100%+)
Three years ago	Major Increase (100%+)
Four years ago	Major Increase (100%+)
Five years ago	Major Increase (100%+)

4.7.2 - What information sources are used to collect trend data on visitor statistics?

Entry tickets and registries

4.7.3 - Visitor management documents

Comment

the visitor flow increased from 33000 to 140000 in last 10 years although the visitors are restricted in the adjoining buffer

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area as the inscribed WHP is kept inviolate as per the Act and Management Plan.

4.7.4 - Is there an appropriate visitor use management plan (e.g. specific plan) for the World Heritage property which ensures that its Outstanding Universal Value is maintained?

Visitor use of the World Heritage property is **not being actively managed** despite an identified need

4.7.5 - Does the tourism industry contribute to improving visitor experiences and maintaining the values of the World Heritage property?

Although the tourism industry is active in the property, there is **little or no contact** between tourism operators and those responsible for the World Heritage property

4.7.6 - If fees (i.e. entry charges, permits) are collected, do they contribute to the management of the World Heritage property?

The fee is collected, but it makes **no contribution** to the management of the World Heritage property

4.7.7 - Comments, conclusions and / or recommendations related to visitor use of the World Heritage property

No Comments

4.8. Monitoring

4.8.1 - Is there a monitoring programme at the property which is directed towards management needs and / or improving understanding of Outstanding Universal Value?

There is considerable monitoring but it is **not directed towards management needs** and / or improving understanding of Outstanding Universal Value

4.8.2 - Are key indicators for measuring the state of conservation used to monitor how the Outstanding Universal Value of the property is maintained?

Information on the values of the World Heritage property is sufficient and key indicators have been defined but **monitoring the status of indicators could be improved**

4.8.3 - Please rate the level of involvement in monitoring of the following groups

World Heritage managers / coordinators and staff	Non-existent
Local / Municipal authorities	Non-existent
Local communities	Non-existent
Researchers	Poor
NGOs	Average
Industry	Not applicable
Local indigenous peoples	Not applicable

4.8.4 - Has the State Party implemented relevant recommendations arising from the World Heritage Committee?

Implementation is **underway**

4.8.5 - Please provide comments relevant to the implementation of recommendations from the World Heritage Committee

No Comments

4.8.6 - Comments, conclusions and / or recommendations related to monitoring

No Comments

4.9. Identification of Priority Management Needs

4.9.1 - Please select the top 6 managements needs for the property (if more than 6 are listed below)

Please refer to question 5.2

5. Summary and Conclusions

5.1. Summary - Factors affecting the Property

5.1.1 - Summary - Factors affecting the Property

	World Heritage criteria and attributes affected	Actions	Monitoring	Timeframe	Lead agency (and others involved)	More info / comment	
3.4 Pollution							
3.4.1	Pollution of marine waters	the oil spills from sea vessels and effluents from towns and cities is polluting the water. SPM has increased over the years.	necessary regulations is to be implemented by the pollution controlling authorities. necessary awareness is also to be generated amongst the all section of the society.	scientific institutions / universities / pollution control board are to take up continuous monitoring of industries vis-a-vis water quality.	it has to be a continuous process.	Federal Govt and educational institutions	No Comment.
3.4.3	Surface water pollution	same as above	same as above	same as above	same as above	same as above	No Comments
3.4.5	Solid waste	it is mainly coming from the upstream.	waste is to be treated and separated before dumping into the river system.	to be done by the pollution control board and the local Govt who will ensure the dumping ground and earthfill for the solid wastes	continuous	Federal and Local Govt	No Comments
3.5 Biological resource use/modification							
3.5.1	Fishing/collecting aquatic resources	the dependence on world heritage property and its buffer for fishery and other aquatic resources is huge	regulations have to be brought by the fishery deptt, inland fishery has to be encouraged	to be done by Fishery and Forest Deptt by inspecting the water vessel and the maeket	continuous	Forest Deptt and Fishery Deptt	No Comments
3.7 Local conditions affecting physical fabric							
3.7.1	Wind	the area is prone to major cyclones and super cyclones originating from Bay of Bengal like SIDR, NARGIS, AILA, KATRINA etc	Disaster Management has to be functional on regular basis	Federal Govt has to monitor and pass on the information through public information system to all the stakeholders	continuous	Federal Govt	No Comments
3.7.6	Water (rain/water table)	water quality has to be monitored as it affects the total world heritage property	Research Institutions and Pollution Control Board of the Federal Govt has to monitor the water quality and necessary regulations are to be implemented	Analysis of water quality samples from different locations in the property	Annually.	Park Management	No Comments

5.2. Summary - Management Needs

5.2.2 - Summary - Management Needs

4.5 Scientific Studies and Research Projects						
	Actions	Timeframe	Lead agency (and others involved)	More info / comment		
4.5.2	Research in the property is not planned	A comprehensive research development plan needs to be prepared.	One year for planning and then subsequent implementation.	Park Management, Scientific Institutions and NGOs	No Comments	
4.5.3	No active outreach of research results to national or international agencies	A communication and dissemination strategy needs to be prepared for communicating research outcomes.	one year.	Park Management, Scientific Institutions and NGOs	No comments.	
4.6 Education, Information and Awareness Building						
4.6.3	There is no education and awareness programme	An education and awareness raising strategy needs to be prepared.	One year.	Park Management, Scientific Institutions and NGOs	No comments.	

4.6.5	The Outstanding Universal Value of the property is not adequately presented and interpreted	This needs to be done through interpretation centres and use of other media.	one year.	Park Management, Scientific Institutions and NGOs	No comments.
4.7 Visitor Management					
4.7.4	Visitor use of the property is not being actively managed	A comprehensive visitor management plan needs to be prepared.	One year	Park Management, Scientific Institutions and NGOs	No comments.

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5.3. Conclusions on the State of Conservation of the Property

5.3.1 - Current state of Authenticity

The authenticity of the World Heritage property has been **preserved**

5.3.2 - Current state of Integrity

The integrity of the World Heritage property is **intact**

5.3.3 - Current state of the World Heritage property's Outstanding Universal Value

The World Heritage property's Outstanding Universal Value has been **maintained**.

5.3.4 - Current state of the property's other values

Other important cultural and / or natural values and the state of conservation of the World Heritage property are **predominantly intact**

5.4. Additional comments on the State of Conservation of the Property

5.4.1 - Comments

No Comments

6. World Heritage Status and Conclusions on Periodic Reporting Exercise

6.1 - Please rate the impacts of World Heritage status of the property in relation to the following areas

Conservation	Very positive
Research and monitoring	No impact
Management effectiveness	Positive
Quality of life for local communities and indigenous peoples	No impact
Recognition	No impact
Education	No impact
Infrastructure development	Negative
Funding for the property	No impact
International cooperation	No impact
Political support for conservation	No impact
Legal / Policy framework	No impact
Lobbying	No impact
Institutional coordination	Negative
Security	Positive
Other (please specify)	

6.2 - Comments, conclusions and / or recommendations related to World Heritage status

No Comments

6.3 - Entities involved in the preparation of this Section of the Periodic Report

Governmental institution responsible for the property
Site Manager/Coordinator/World Heritage property staff
Staff from other World Heritage properties
Non Governmental Organization

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6.4 - Was the Periodic Reporting questionnaire easy to use and clearly understandable?

yes

6.5 - Please provide suggestions for improvement of the Periodic Reporting questionnaire

No Suggestions

6.6 - Please rate the level of support for completing the Periodic Report questionnaire from the following entities

UNESCO	Very good
State Party Representative	Very good
Advisory Body	Very good

6.7 - How accessible was the information required to complete the Periodic Report?

All required information was accessible

6.8 - The Periodic Reporting process has improved the understanding of the following

The World Heritage Convention
The concept of Outstanding Universal Value
The property's Outstanding Universal Value
The concept of Integrity and / or Authenticity
The property's Integrity and / or Authenticity
Managing the property to maintain the Outstanding Universal Value
Monitoring and reporting
Management effectiveness

6.9 - Please rate the follow-up to conclusions and recommendations from previous Periodic Reporting exercise by the following entities

UNESCO	Satisfactory
State Party	Satisfactory
Site Managers	Satisfactory
Advisory Bodies	Satisfactory

6.10 - Summary of actions that will require formal consideration by the World Heritage Committee

- **Statement of Outstanding Universal Value / Statement of Significance**
Reason for update: Sent separately by e-mail to Dr V B Mathur, Dean, WII
- **Map(s)**
Reason for update: The map is being uploaded.

6.11 - Comments, conclusions and / or recommendations related to the Assessment of the Periodic Reporting exercise

No Comments