


National Plan for Conservation of Aquatic Eco-systems

Presentation to Hon'ble Minister of Environment, Forest & Climate Change

14th July, 2016



Officers handling NPCA

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Wetlands & Lakes

Wetlands - Shallow water bodies (< 2 m deep), water recedes in dry season, support dominant macrophyte growth & aquatic biodiversity

Lakes - Relatively deep permanent water bodies, limited submergent macrophyte & fish, provide water for varying human consumption

Uses – Life support systems (drinking water supply, agriculture, fisheries), habitats for flora & fauna, habitat for migratory birds, recharging of aquifers, recreation, educational & scientific value, bio-diversity, flood control, sediment load reduction, wastewater treatment, pollution sinks

Wetlands & lakes– lifelines of society

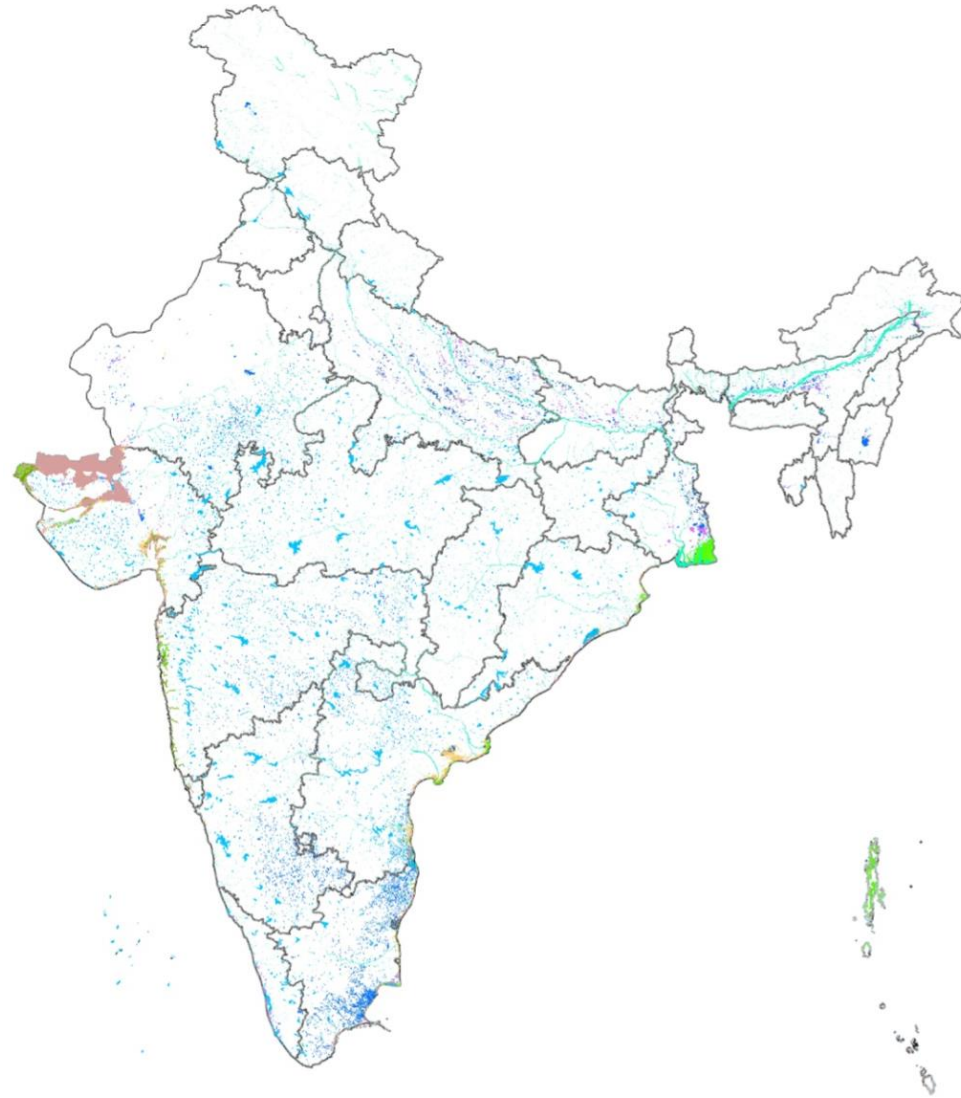
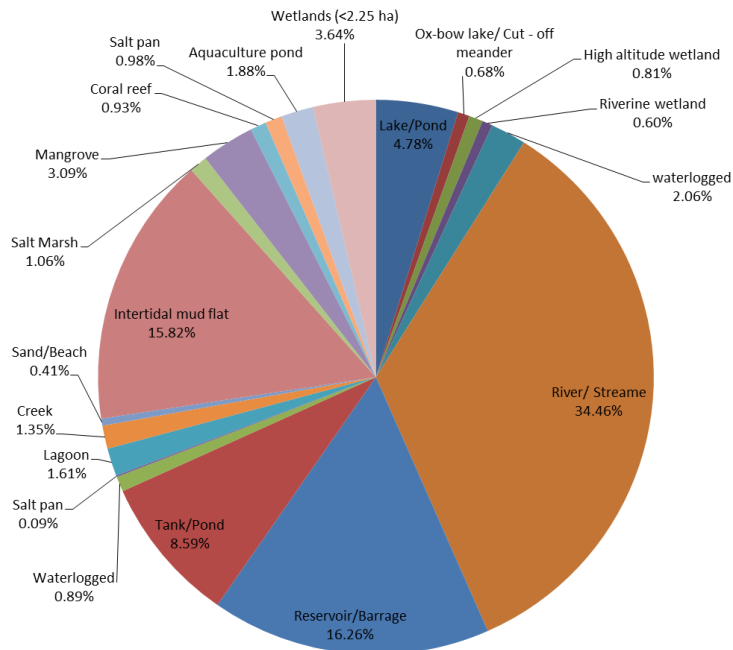
- Water and food security
- Regulate water regimes
- Buffer extreme events as floods and storms
- Support livelihoods
- Recreation
- Cultural identity

Yet, continue to be degraded and impacted by sectoral development



Inventory

- Mapping by SAC (1: 50,000 scale)
- 15.26 m ha of which 10.56 m ha inland wetlands (7.57 lakh wetlands)



Major threats

Fragmentation of hydrological regimes



Catchment degradation



Conversion for alternate use



Pollution



Over-harvest of resources



Invasive species



National Efforts

National Lake Conservation Plan (NLCP)

- Implemented since 2001 to address pollution issues in urban lakes
- Projects sanctioned for conservation of 63 lakes in 14 states at a total cost of Rs.1096.09 crore
- Funding pattern 70:30 (90:10 for NE States), Dal lake project in J&K provided 100% financial assistance
- Admissible components include prevention of pollution, in-situ lake cleaning, catchment area treatment, lake front development, etc.
- Funds released so far Rs.635.90 crore
- Works completed in 33 lakes
- Major ongoing works include Dal-Nageen lake (Srinagar), Pichola, Fatehsagar & Pushkar lakes (Rajasthan), Shivpuri & Sindh Sagar lakes (M.P.), Ramgarh Tal & Laxmi Tal (U.P.) and Mokakachung (Nagaland)



Nainital Lake

National Plan for Conservation of Aquatic Eco-systems

S. No.	State	No. of Lakes covered	Sanctioned Cost (Rs. Crore)
1	Jammu & Kashmir	1	298.76
2	Karnataka	16	69.18
3	Kerala	1	24.56
4	Madhya Pradesh	4	87.41
5	Maharashtra	14	28.57
6	Nagaland	2	25.83
7	Odisha	1	3.50
8	Rajasthan	6	225.30
9	Tamil Nadu	2	12.17
10	Telangana	1	4.30
11	Tripura	3	2.02
12	Uttar Pradesh	3	201.16
13	Uttrakhand	5	64.82
14	West Bengal	4	48.51
GRAND TOTAL		63	1096.09

National Efforts

National Wetland Conservation Programme (NWCP)

- Being implemented since 1986
- 115 wetlands in 24 states and 2 UTs identified for conservation and management
- Funding pattern – 100% financial assistance as annual grants to State Governments for MAP implementation
- Admissible components include catchment area treatment, de-siltation, pollution abatement, afforestation, fisheries, public participation, etc.
- Rs. 146.94 crore released to States till date for conservation of 82 identified wetlands
- Wetlands (Conservation and Management) Rules, 2010 notified as regulatory framework
- Support for research & development on lakes and wetlands

International Efforts

- **Ramsar Convention on Wetlands**
 - Commitment to ‘wise use principles’
 - 26 wetlands designated as Ramsar sites
- **Ramsar Conservation award to Chilika Development Authority for ecological interventions in Chilika lake**
- **12th meeting of CoP for the Ramsar Convention held in June, 2015 in Uruguay**
- **World Wetland Day (WWD) celebrations held every year on 2nd February to mark the signing of Ramsar Convention. In 2016, WWD celebrated in Sunderbans, West Bengal**

Key Challenges

- **Limited State Government commitment for the programmes**
- **MAPs for NWCP implemented on annual cycles – limited adoption of integrated approaches**
- **Need for a strong institutional mechanism for implementation – only a few Wetland/Lake authorities in place**
- **Weak uptake of regulatory framework**
- **Encroachment of urban water bodies**
- **Loopholes being exploited for conversion of wetlands**

National Plan for Conservation of Aquatic Eco-systems

- To avoid overlap and promote better synergies, NLCP and NWCP merged in February, 2013
- Consultation held with States & other stakeholders on strengthening institutional mechanism and programme implementation. Advisory sent to States in December, 2013 & September, 2014 on integrated management of wetlands
- **Approach**
 - Mainstreaming aquatic ecosystems in developmental programming
 - Integrated management based on comprehensive DPRs prepared in consultation with experts
 - Funding pattern - 70: 30 (90:10 for NE) which has now been revised to 50:50 (80:20 for NE & Hill States) from 1.4.2015 onwards
 - Strengthening institutional arrangements (Wetland/Lake Authorities) at State level
 - Strengthening capacity of State/UT for integrated management
 - Dovetailing of works (conservation/infrastructure) funded under different programmes like RRR of Water Bodies in MoWR, MNREGA and schemes of MoUD
- Budget allocation of Rs.525 crore provided for NPCA in XII Plan. However, against the average budget allocation of Rs. 125 crore/annum, total funds made available for NPCA in the 1st 4 years of the Plan are only Rs. 198.37 crore. Little funds available for taking up new projects

Wetlands (Conservation and Management) Rules, 2010

- **Recommends prohibited and regulated activities within wetlands and their zone of influence**
- **Enforced by Central Government through Central Wetland Regulatory Authority (CWRA)**
 - recommend sites for inclusion based on proposals from State Governments
 - specify threshold level of activities to be regulated
 - grant clearances for regulated activities
- **Application limited to Ramsar Sites only as no other wetland notified under the Rules to date**
- **Required leadership of State Governments not emerging**
- **Concerns**
 - Concentration of powers in CWRA even though water and land are State subjects
 - Threshold of 500 ha. too large for most wetlands under threat
 - Uniform regulation, no reference to site characteristics
 - Ambiguity in case of coastal wetlands

Draft revised Wetlands Rules, 2016

- After detailed consultations with States and other stakeholders, draft revised Wetland Rules, 2016 notified and uploaded on the Ministry's website in April, 2016 for inviting objections/suggestions. A large number of comments/suggestions have been received which are being examined & collated
- State Wetland Authorities will be the nodal agency for notification, regulation and management. No Central Wetland Regulatory Authority envisaged
- Regulation based on site characteristics while barring conversion into non-wetland uses and alteration of inflows and outflows
- Mandatory boundary delineation, specification of ecological character and regulation thresholds
- Regulations of wetlands under protected areas, notified forests and coastal zones as per respective laws and rules, management on wise use principles

National Plan for Conservation of Aquatic Ecosystems

Priorities/targets for FY 2016-17 & Important Issues

- **Projects for conservation of 2 lakes and Management Action Plans (MAPs) for 10 identified wetlands to be sanctioned**
- **Against projected requirement of Rs. 70 crore, a provision of Rs. 60 crore has been made in FY 2016-17. Efforts would be made to get allocation increased at RE stage (as has been done in FY 2015-16)**
- **States expressing difficulty to contribute their increased matching share for ongoing sanctioned works due to revision in funding pattern from 70:30 to 50:50 w.e.f. 1.4.2015**
- **Issue of final notification of Wetlands (Conservation & Management) Rules, 2016**
- **Finalization of NPCA Guidelines (draft ready) after notification of revised Wetlands Rules, 2016**
- **Inventorization of wetlands in the country to be taken up based on Wetland Atlas prepared by SAC, Ahmedabad in 2011**

National Plan for Conservation of Aquatic Ecosystems

Priorities/targets for FY 2016-17 & Important Issues

- Following new projects, which are under independent appraisal, can be taken up only if sufficient allocation is available :
 - Conservation of Dharamvir Sambhaji lake, Solapur, Maharashtra - *Rs. 8.07 crore*
 - Conservation of Koradi lake, Nagpur, Maharashtra - *Rs. 110.23 crore*
 - Conservation of Amritsagar lake, Ratlam, M.P. – *Rs. 37 crore*
- Meeting at Ministerial level on pollution of lakes in Bengaluru taken by erstwhile Hon'ble MEF&CC on 14.6.2016, wherein a number of actionable points for the State Government & its agencies were agreed
- Comments of the Ministry on draft Cabinet Note on creation of National Bureau of Water Use Efficiency (NBWUE) sent to MoWR,RD&GR in July, 2015 suggesting merger of Water Quality Assessment Authority with the proposed NBWUE as their mandate & functions were overlapping. Matter is still under consideration in MoWR,RD&GR
- Project on 'Integrated Management of Wetland Biodiversity and Ecosystem Services'' recently approved by UNEP under GEF programme. The project aims at complementing the NPCA programme to improve the management of important wetlands in India and secure socio-economic & environmental benefits through wise use of wetlands

Thank You



GEF Project: Integrated Management of Wetland Biodiversity and Ecosystem Services

Goal

- Conservation and wise use of wetlands for sustained provision of their full range of ecosystem services and maintenance of biological diversity

Objective

- Enhanced management effectiveness of wetlands of national and international importance for integration in developmental programming

GEF Project: Integrated Management of Wetland Biodiversity and Ecosystem Services

Components

1: Wetlands BES knowledge systems for national policy support

2: Building capacity for integrated management

3: Demonstration of integrated management

*Harike Lake, Punjab; Kanwar Jheel, Bihar;
Sasthamcotta Lake, Kerala*

GEF Project: Integrated Management of Wetland Biodiversity and Ecosystem Services

	GEF Funds	Co-finance
Component 1: ES based Knowledge Base	US\$ 534,808.74 Rs.3.26 cr	US\$ 3,190,000 Rs. 19.45 cr
Component 2: Capacity Building	US\$ 641,912.57 Rs. 3.91 cr	US\$ 2,780,000 Rs. 16.95 cr
Component 3: Piloting integrated management	US \$ 2,630,655.74 Rs.16.042 cr	US\$ 8,340,000 Rs. 50.87 cr
Component 4: Project Management, Monitoring and evaluation	US\$ 389,197.95 Rs. 2.37 cr	US\$ 1,225,000 Rs. 7.35 cr
	US\$ 4,196,575 Rs. 23.93 cr	US\$ 14,310,000 Rs. 87.29 cr

GIZ Project: Wetlands Management for Biodiversity and Climate Security

Goal

To secure and enhance wetland biodiversity and ecosystem services, offering nature based solutions for adaptation to climate change through implementation of ecosystems based integrated wetlands management plans.

Objective

Strengthen the institutional framework and capacities for integrating ecosystems approach to management of wetlands of international importance (Ramsar sites) in India

GIZ Project: Wetlands Management for Biodiversity and Climate Security

Components

1: Wetland management planning

2: Capacity development and institution building

3: Wetland monitoring system

Implementation sites

3-4 Ramsar sites in Himachal Pradesh (Pong, Renuka), Odisha (Bhitarkanika, Chilika) and Tamil Nadu (Point Calimere).

Budget

Rs. 28 cr (Euro 4 million)

Outlays versus utilization of funds (DBS) under NPCA

(Rs. in crore)

Year	Allocation	Expenditure	Percentage	Reason for variation
2012-13	65.50	64.58	98.59	Very small surrender due to non-submission of UCs & progress reports by implementing agencies and R&D Institutions.
2013-14	55.85	55.49	99.53	
2014-15	37.12	37.03	99.76	
2015-16	39.90	39.61	99.27	
2016-17*	60.00	--		
Total	258.37	196.81		

*Note : * Upto 31st May, 2016*

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Details of funds released under NLCP/NPCA during XII Five Year Plan

S. No.	State	Funds Released (Rs. in crore)			
		2012-13	2013-14	2014-15	2015-16
1	Jammu & Kashmir	-	29.86	--	15.00
2	Maharashtra	--	0.40	--	--
3	Madhya Pradesh	-	--	2.50	4.90
4	Rajasthan	15.13	--	25.66	10.95
5	Uttar Pradesh	30.00	15.00	2.50	--
6	Nagaland	--	3.00	1.11	--
7	West Bengal	7.17	--	--	--
GRAND TOTAL		52.30	48.26	31.77	30.85

Target versus Achievement under NLCP/NPCA

Year	Physical Target (Nos.)	Output (Nos.)	Shortfall/ Excess (Nos.)	Reasons for variation
2012-13	Conservation/rejuvenation of 4 lakes to be completed	Conservation/rejuvenation works of 1 completed	-3	Lesser allocation of funds against requirement
2013-14	Conservation/rejuvenation of 4 lakes to be completed	Conservation/rejuvenation works of 4 completed	0	No Shortfall
2014-15	Conservation/rejuvenation of 4 lakes to be completed	Conservation/rejuvenation works of 3 completed	-3	Lesser allocation of funds against requirement
2015-16	Conservation/rejuvenation of 2 lakes to be completed	Conservation/rejuvenation works of 3 completed	+1	Higher achievement

Target versus achievement under NWCP/NPCA

Year	Physical Target (Nos. of MAPs sanctioned)	Output (Nos. of MAPs sanctioned)	Shortfall/ Excess (Nos.)	Reasons for variation
2012-13	20	20	0	No Shortfall
2013-14	20	20	0	No Shortfall
2014-15	20	17	-3	Lesser allocation of funds against requirement
2015-16	10	24	+14	Higher achievement

Measurable Outcomes & Physical Outputs

Year	Funds Requirement (Rs. in crore)	Measurable Outcomes	Physical output
2016-17	70	Completion of conservation and management works in identified lakes	Conservation activities/works to be completed in 2 lakes
		Sanction and release of grants for Management Action Plans(MAPs) of identified wetlands	Sanction and release of grants for MAPs of 20 identified wetlands
2017-18	100	Completion of conservation and management works in identified lakes	Conservation activities/works to be completed in 3 lakes
		Sanction and release of grants for MAPs of identified wetlands	Sanction and release of grants for MAPs of 20 identified wetlands
2018-19	150	Completion of conservation and management works in identified lakes	Conservation activities/works to be completed in 4 lakes
		Sanction and release of grants for MAPs of identified wetlands	Sanction and release of grants for MAPs of 20 identified wetlands
2019-20	150	Completion of conservation and management works in identified lakes	Conservation activities/works to be completed in 2 lakes
		Sanction and release of grants for MAPs of identified wetlands	Sanction and release of grants for MAPs of 0 identified wetlands

Sustainable Development Goals (SDGs)

- **Targets 6.3 & 6.6 of SDG Goal 6 (ensure availability and sustainable management of water & sanitation for all) are related to NRCP**
 - **Halving the proportion of untreated wastewater by 2030**
 - **Increasing recycling and safe reuse by [X] percent globally by 2030 *[we have suggested 10% recycle & re-use]***
 - **Protect and restore water-related ecosystem with respect to wetlands, rivers and lakes by 2020**
- **Works taken-up under NPCA will help address these targets**

Major Recommendations of Independent Evaluation of NRCP & NLCP

- Adequate funding to be provided for NRCP to undertake the mammoth task of cleaning polluted rivers. Dovetailing with other programmes to be done
- Comprehensive sewerage system be laid for the entire town, instead of I&D works
- Funds should be released directly to implementing agencies
- NRCD to be strengthened
- Consider creating a revolving fund for providing financial assistance to ULBs for O&M, which can be recovered later
- Training and capacity building programmes to be carried out, especially for the ULBs and maintaining agencies
- Encourage recycle and re-use of treated waste water and resource recovery from STPs
- Projects to be appraised by independent institutions/experts

Major Recommendations of Independent Evaluation of NRCP & NLCP

- **Third party inspection to be adopted at construction stage**
- **Appropriate technologies for sewage treatment may be adopted, which suit local site conditions and have low O&M cost**
- **BOT model could be followed to ensure efficient O&M. Alternatively 5 years O&M to be included in the project at the time of award of work for the STP**
- **ULBs to encourage introduction of more private sector participation and PPP models in the river & lake conservation programmes**
- **Holistic approach be taken to conserve lakes, including laying of sewerage system, proper solid wastes disposal and groundwater monitoring**
- **Public participation and awareness programmes to be taken up**
- **Strict enforcement of environmental laws by SPCBs to control industrial pollution**

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Suggestions/Observations

- Budget allocation for NPCA needs to be substantially enhanced so that implementation of ongoing sanctioned works is not hampered and new projects can be taken up
- GoI funds released to State Governments are transferred to the implementing agencies after substantial delay. Need to directly release funds to the implementing agencies, as done earlier
- States expressing difficulty to contribute their increased matching share for ongoing sanctioned works due to revision in funding pattern from 70:30 to 50:50 w.e.f. 1.4.2015
- State Wetland/Lake Authorities to be established in each State for dealing with all issues relating to conservation of lakes and wetlands in a holistic manner
- Inventorization of wetlands in the country to be taken up based on Wetland Atlas prepared by SAC, Ahmedabad in 2011

Important Court Cases

- PIL related to Wullar Lake conservation project funded under the 13th Finance Commission. Hon'ble High Court of J&K at Srinagar has directed NRCD to spare services of an expert dealing with water bodies to monitor implementation of the project. As per the request of High Court, Attorney General has nominated ASG Shri N. K. Kaul to represent into the matter. The case was listed for 8th September, 2014. Due to grim flood situation in Srinagar, his programme was cancelled at the last moment
- PIL related to setting up a solar power plant on Sambhar wetland site in Rajasthan, being promoted by M/s Hindustan Salts Limited along with 5 other Central & State PSUs. Parawise comments being sent to the Counsel for preparation of draft affidavit.