

MANAGEMENT EFFECTIVENESS EVALUATION OF NATIONAL PARKS AND WILDLIFE SANCTUARIES IN INDIA



HIMACHAL PRADESH

Based on the Management effectiveness evaluation of the 13 Protected Areas in the State of Himachal Pradesh, the MEE team of Northern Region furnished following suggestions/recommendations for the better and effective management of protected areas in the state.

1. Although Himachal Pradesh Forest Department has made commendable work and PA management and ensured well designed corridor connectivity and landscape planning between PAs particularly GHNP, Sainj and Tirthan WLS, there is need for initiation of updated Management Plans as per WII guidelines forthwith which should include ESZ proposal and pursuance for early finalization of the same.
2. There is need for exploring more areas in buffer areas and in other PAs ie Kugati WLS, etc for promotion of trekking and ecotourism activities in order to reduce excessive pressure on the existing ecotourism zone in Tirthan WLS.
3. Coordination between the BTCA and other SHGs and NGOs of Tirthan and Sainj to ensure that some of the trekkers are motivated for trekking through the potential routes in Sainj WLS.
4. The project staff engaged in the NMHS-NLC project needs to be involved in inventorization and population monitoring and building Systematic baseline data on flora and fauna in the PAs.
5. The animal population monitoring and census exercises in consultation with the local institutions and WII need to be made a regular feature for ensuring effective science based

management interventions for the long term conservation and survival of species and their habitats.

6. Systematic monitoring of threats such as fire, illicit felling, and lopping, felling, encroachment should be carried out on regular basis.
7. Monitoring of Pre and Post scenario on reduction of anthropogenic pressures on PA with regard to schemes such as distribution of Induction heater / LPG, Seed, Pressure Cooker to local communities need to be done.
8. Range office headquarter of Nargu WLS which presently seem to be very remotely located need to be established at centrally located place to ensure effective monitoring of the substantial area of the PA.
9. Need for better coordination with line departments including with territorial divisions and local communities during planning stage for better implementation of the schemes and management plan in the PAs.
10. Although a system of awards for the staffs exist at the state level, to encourage the frontline forces, appreciation to staffs by rewarding some incentives to them at PA level should also be initiated.
11. A detailed plan should be drawn up by to adopt climate change resilient management in coordination with the Himanchal Pradesh Center on Climate Change, HPCCC.
12. The manager of PAs must conduct self MEE exercise and the records should be maintained for reference for future monitoring.
13. Since no estimation details of the population of important wildlife has been done so far for these PAs, it is very essential that rapid surveys/population estimation at least of the key species of these PAs following robust scientific methods is conducted now and on subsequent periods to know the population trends. This information will be of immense for the Management Plan of these PAs for which Management Planning is under preparation now and for other areas during the revision of Plans.
14. All the PAs are in high altitude ranges which are under snow cover for about six months during the winter season and remain snow clad for many months (except Majathal Wildlife Sanctuary where snow fall does not last for a longer period). Accordingly, the period of execution of many management activities is limited and calls for early release of funds to all these PAs.
15. The Management Plan for all these PAs (except for Majathal, Seichu Tuan Nala and Shikari Devi Wildlife Sanctuaries) need to be finalized and approved by the Competent Authority at the earliest. It was informed that the Plans for other areas are under preparation. The Team also saw the draft Plan for Talra and Rakchham Chhitkul Wildlife Sanctuary.
16. Being high-altitude PAs, which are under snow cover for more than six months during winters. The period of work available is very short. The government may consider to relax some of the procedural protocols like calling for tenders which consumes much time as a special case for such remote and snow bound areas.
17. In 2013, the Government of Himachal Pradesh has undertaken massive rationalization of PA boundary by excluding number of villages from the Sanctuary and now these villages fall in territorial forest division. This novel move on one hand will facilitate the aspiration for basic developmental works of the local people, it may also be required that the Forest department initiates programs to identify the levels of resource dependency on forests around the villages and special initiatives towards augmenting livelihood options, alternative energy sources and methods and encouraging tree growing activities in common community lands are undertaken.
18. Cattle grazing (specially sheep and goats) by the nomadic as well as the local herder's pose threat all these PAs. The assessment of the number of cattle by the herders and the population trend of cattle is lacking in the Management Plan. It is suggested that workable management interventions e.g. rotational grazing, closure of unique habitats,

creation of better awareness among the herders, examining alternative options for livelihood enhancement to the community which may encourage them to reduce numbers of cattle over a period of time may be attempted.

19. Many PAs in the State have undergone the process of reorganization through rationalization of their boundaries. Consequently, there has been large enhancement or reduction of their extent when compared to the original notifications. It is therefore, suggested that the data base of PA Network maintained by WII may be accordingly revised in coordination with the State Government and MoEFCC.

5. Great Himalayan National Park, Himachal Pradesh

MEE Score- 84.17% (Very Good)

Management Strengths

1. The proximity of the Great Himalayan National Park (GHNP) to a city, an important tourist destination, namely Kullu-Manali, and the corridor connectivity it has with Pin Valley National Park.
2. There is well designed and established corridor, networking and landscape planning between GHNP, Sainj and Tirthan WLS.
3. Barring one family settlement, the PA is free of encroachments and settlements.
4. Adequate funding for GHNP is being received on time from state and central schemes (the CSS, CAMPA and CAPEX budgets).
5. The number of human-wildlife conflict cases recorded in and around the park is insignificant.
6. The staff strength is satisfactory.
7. Mobile allowances are provided to officers and the frontline staff. They can use their personal mobiles for wildlife management and protection purposes.
8. The livelihood issues of the resource-dependent communities are being addressed effectively through various registered societies.
9. There are well planned and monitored habitat restoration programmes.
10. The site has a comprehensive science-based management plan with the threats being identified, assessed and monitored systematically.

Management Weaknesses

1. Inaccessibility of much of the national park is a great impediment to carrying out equitable management interventions in the area.
2. The site has immense biotic pressures including livestock grazing and NTFP collection, which was also reflected in first MEE assessment in 2006-07.
3. There is no systematic monitoring of wildlife in the PA.

Immediate Actionable Points

1. There is a need to explore more areas in the buffer zone to promote trekking and ecotourism activities through the BTCA and other self-help groups (SHG) to reduce excessive pressure on the existing ecotourism zone in the core zone of the park.
2. The project staff engaged in the NMHS-NLC project need to be involved in making inventories of the flora and fauna of the sanctuary and in monitoring populations and building systematic baseline data.
3. The animal population monitoring and census exercises being carried out in consultation with local institutions and WII need to be strengthened and carried out regularly to ensure that effective science-based management interventions for the long-term conservation and survival of species and their habitats.

4. There is scope for further involvement of the communities in the management activities and eco-development and ecotourism programmes in the GHNP landscape to enable marginal fringe communities around the landscape previously reliant upon NTFP and livestock resources to benefit from the economic and social aspects of this new source of sustainable income-generating ecotourism while reducing impacts on the environment and wildlife.

Evaluators

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6. Kugti Wildlife Sanctuary, Himachal Pradesh

MEE Score- 73.33% (Good)

Management Strengths

1. Kugti WLS is connected to Tundah WLS and Dauladhar WLS, in Hamirpur Wildlife Division, and to Nargu WLS, in Kullu Wildlife Division, thereby forming a large wilderness landscape.
2. There is no pressure of poaching.
3. Kugti is the one of the best areas for the Himalayan brown bear, Asiatic black bear, snow leopard and musk deer.
4. The area has great potential for eco-tourism and pilgrimage with the Mani-Mahesh and Kartik temples located in it.

Management Weaknesses

1. Most of the PA is inaccessible, which hampers the routine monitoring and surveillance in the PA.
2. The management plan of the sanctuary has not been updated.
3. No communication system is available once the staff members go to remote areas for work.
4. No eco-development committees have been constituted.

Immediate Actionable Points

1. The work on the new wildlife management plan should be expedited forthwith as per WII guidelines and should include an ESZ proposal. The plan should be finalized as early as possible.
2. Better coordination with line departments and local communities is needed for the schemes and management plan to be implemented better.
3. Systematic monitoring of threats such as fires, illicit felling, lopping, felling and encroachment should be carried out on a regular basis.
4. Systematic monitoring of the status and distribution of most threatened species needs to be strengthened further to ensure that the management planning for the species and habitats is scientific.
5. Signage is needed at different places and offices. A map showing the management units of the division up to the level of beat office should be displayed.
6. Meetings should be held with stakeholders from the beginning of the management and planning stages.
7. Re-organization of the staff is required.
8. The park has to develop guidelines for eco-tourism.

9. The management should constitute eco-development committees at the earliest to strengthen the park–people interface.
10. The management should participate in meetings with other line departments and highlight the problems and requirements of people living on the periphery of the park.
11. The park should have an efficient communication system for the frontline staff and for patrolling, such as a wireless system with walkie-talkies.

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7. Lippa-Asrang Wildlife Sanctuary, Himachal Pradesh

MEE Score- 53.33% (Fair)

Management Strengths

1. There are no encroachments and villages inside this PA.
2. The PA is part of a larger forested landscape in which there is scope for corridors or networks. There is a good possibility of developing a landscape-level plan.
3. During the last 3 years, this PA has had no records of human–wildlife conflict.
4. During the last 3 years, the PA has received adequate funds from CSS and CAMPA.
5. The staff is sufficient (all the posts are filled), and the staff are involved in protection and management.
6. Mobile allowances are provided to all the officers and the frontline staff members. They can use personal mobiles for protection and management purposes.
7. The local people support the protection and management of the PA fully.

Management Weaknesses

1. The management plan has expired (1995–96 to 2004–05), and a new management plan is just being written.
2. There is no zonation (core, buffer or tourism and eco-sensitive zones (ESZ)).
3. No contributions are received from NGOs in cash or kind for the management of the PA.
4. There is no staff member or range-level officer formally trained in wildlife management.

Immediate Actionable Points

1. The wildlife management plan should be redrafted in accordance with the WII guidelines, with proper zonation, including the ESZ, and its implementation should be expedited.
2. The PA manager needs to coordinate with officers of the respective territorial divisions to which the adjoining forests belong so as to integrate landscape-level planning into their respective working plans.
3. A post of ACF needs to be created and an officer appointed immediately.
4. The existing communication equipment such as wireless sets should be repaired or replaced with new sets and used for effective patrolling, and the coordination with the other enforcement or line agencies must be enhanced.
5. Better coordination with the line departments is needed to tap state and district resources.
6. Systematic risk and protection plans are to be included in the wildlife management plan.

7. The officers from the DFO downwards and all the frontline staff should be trained in wildlife management.
8. The manager of the PA must ensure that there is effective public participation in the planning and management of the PA.
9. The situ before and after the reduction of anthropogenic pressures on the PA with regard to schemes such as distribution of LPG connections should be monitored to assess the impact of the schemes.
10. A district-level website must be developed for the PA, and the site must be linked with the website of the state forest department.
11. Systematic baseline data on the flora and fauna, specifically the rare, endemic and threatened (RET) species and the IUCN Red List and IWPA Schedule species, should be generated as quickly as possible and the flora and fauna systematically monitored.
12. Eco-development committees (EDCs) should be constituted to mobilize support for the conservation plans and programmes of the PA.

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8. Majathal Wildlife Sanctuary, Himachal Pradesh

MEE Score- 58.33% (Fair)

Management Strengths

1. The sanctuary is well buffered on the western side.
2. The sanctuary has an approved management plan for the period from 2018–19 to 2028–29.
3. The biodiversity of the sanctuary is rich, and the sanctuary is supposed to have high densities of the Cheer Pheasant and Goral.
4. The sanctuary has an eco-sensitive zone of extent 12.68 km². This was approved by MoEFCC on 7 June 2017.

Management Weaknesses

1. No exercise has been carried out to monitor important wildlife populations in the sanctuary so far.
2. The river Sutlej runs along the boundary of the sanctuary. Patrolling by boats is being undertaken. These efforts may be stepped up.

Immediate Action Points

1. Since no estimation of the populations of important wildlife species has been carried out so far, scientific surveys or estimates based on robust methods need to be conducted or made for key species found in the sanctuary.
2. The livelihood issues need to be assessed and suitable interventions required during the remaining period of the management plan.

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9. Nargu Wildlife Sanctuary, Himachal Pradesh**MEE Score- 70% (Good)****Management Strengths**

1. The ecotourism potential of the PA is good. It has a number of potential sites, viz., Nargu Top, Bhu-bhu Pass, Chuhar Valley, Uhal River, etc.
2. There have been no cases of human-wildlife conflict in the PA during the last 3 years.
3. The threats faced by the sanctuary are negligible after rationalization of the PA.
4. The available funds (CAMPA (Koldam and CAT Plan) and CSS) are adequate for the management of the PA. The funds received in BioDCS are ploughed back to the management of the PA.
5. Mobile allowances are provided to all the officers and frontline staff. They can use personal mobiles for protection and management purposes.

Management Weaknesses

1. Inaccessibility of most PA area hampers the routine monitoring and surveillance in the PA.
2. No systematic inventory of the flora and fauna of the PA has been made. Wildlife is not monitored systematically in the PA.
3. The headquarters of the range office seem to be very remotely located.

Immediate Actionable Points

1. Systematic monitoring of threats such as fires, illicit felling, lopping, felling and encroachment should be carried out. The wildlife must be monitored on a regular basis.
2. Anthropogenic pressures in the PA must be monitored before and after schemes such as distribution of induction heaters and LPG connections, seeds and pressure cookers to local communities need to be done.
3. Work on the new wildlife management plan should be initiated forthwith as per WII guidelines and should include an ESZ proposal. The plan should be finalized quickly.
4. The range office (headquarters), which presently seems to be very remotely located, needs to be established at a centrally located place to ensure that a substantial part of the PA is effectively monitored.
5. Better coordination with line departments and local communities is needed for the implementation of the schemes and management plan to be improved.

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10. Rakchham Chhitkul (Sangla Valley) Wildlife Sanctuary, Himachal Pradesh**MEE Score- 56.67% (Fair)****Management Strengths**

1. The sanctuary is free of very high levels of anthropogenic pressure. There is no village within the sanctuary.
2. The terrain is mountainous, and most areas are inaccessible.
3. The presence of ITBP Check-post and personnel near Chhitkul, the last village, provides support to the management as no one who is not a staff member of the the Forest Department is allowed entry into the interior of the sanctuary for security reasons. This is helpful for the protection of the sanctuary.

4. The villages Sangla, Rakchham and Chhitkul are connected by road, and many tourists visit the area; however, the number of visitors to the sanctuary area is not high or threatening.
5. The sanctuary has biological, ecological, hydrological and recreational values.

Management Weaknesses

1. Being located in a high-altitude area, the sanctuary remains snow covered for almost 6 months in a year. Thus the period in which management-related activities can be carried out is short. This calls for timely availability of funds for undertaking management-related works.
2. Patrolling gear and vehicles required for undertaking winter patrolling are lacking.
3. There is no approved management plan for the sanctuary in place to guide and prioritise various management inputs for effective delivery of outputs in tune with the management objectives of the sanctuary. The plan prepared for the period from 2011–12 to 2021–22 is yet to be approved. The draft plan also needs many corrections and suitable revisions.
4. The current strength of the staff and the facilities available are not sufficient for the tough terrain of the sanctuary.
5. No robust scientific exercise has been attempted to monitor important wildlife populations in the sanctuary.

Immediate Action Points

1. The draft management plan for the sanctuary for the period from 2011–12 to 2021–22) may be modified/corrected and approval obtained from the competent authority at the earliest.
2. Since no estimates have been made of the populations of important wildlife species so far, rapid surveys or estimates based on robust methods should be conducted or made now. The information gathered should be incorporated in the management plan of the sanctuary, which is being revised now.
3. The state government may consider providing more personnel for the field staff as well as more field gear and vehicles for winter patrolling. The capacity of the staff to carry out patrols in winter needs to be developed.
4. The sanctuary is situated in a high-altitude area that remains snow covered for about 6 months in a year, and the period in which management-related works can be carried out is short. The government may consider relaxing the procedures involved in calling for tenders for works. These procedures are time consuming, whereas the period of time available for undertaking management activities is limited. Timely funding support is also required.

Evaluators

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11. Renuka Ji Wildlife Sanctuary, Himachal Pradesh

MEE Score- 55.83% (Fair)

Management Strengths

1. There are no encroachments or villages inside this PA.
2. During the last 3 years, this PA has had no records of human–wildlife conflict.
3. During the last 3 years, the PA has received adequate funds from CSS and CAMPA (KOL Dam).

4. The strength of the staff is sufficient (all the posts have been filled), and the staff are involved in protection and management.
5. Mobile allowances are provided to all the officers and the frontline staff members. They can use personal mobiles for protection and management purposes.
6. The local people support the protection and management of the PA fully.
7. The proposal for an eco-sensitive zone has been submitted to the Government of India (yet to be approved at GOI level).

Management Weaknesses

1. The management plan has expired (2002-03 to 2012-13), and the new management plan, for 2018-19 to 2028-29, is under preparation.
2. There is no possibility of any landscape connectivity as the territorial forests are fragmented, with agricultural lands spread out intermittently.
3. There is no zonation (core and buffer zones).
4. No contributions are received from NGOs, including the Renukaji Development Board, in the form of cash or kind for the management of the PA.
5. There is no staff or range-level officer who has been formally trained in wildlife management.
6. No appreciation or incentives are received by the field staff although a system of awards for the staff exists at the state level.
7. No support has been received so far from the Renukaji Development Board for any aspect of management.

Immediate Actionable Points

1. The wildlife management Plan should be redrafted in accordance with the WII guidelines, and the ESZ proposal should be included in it. This should be expedited.
2. The manager of the PA needs to coordinate with officers of the respective territorial division to which the adjoining forests belong so as to integrate landscape-level planning into their respective working plans.
3. Better coordination with the line departments is needed to tap state and district resources.
4. Systematic risk and protection plans are to be included in the wildlife management plan.
5. The Range Officer and all members of the frontline staff should be trained in wildlife management.
6. The management should pursue the final declaration of the ESZ with the MoEFCC.
7. The manager of the PA must ensure that there is effective public participation in the planning and management activities of the PA.
8. The situations before and after the reduction of anthropogenic pressures on the PA with regard to schemes such as distribution of sewing machines should be monitored to assess the impact of the schemes.
9. The development of a divisional level website for the PA must be expedited, and the site must be linked with the website of the state forest department.
10. Systematic baseline data on the flora and fauna, specifically the rare, endemic and threatened (RET) species and the IUCN Red List and IWPA Schedule species, should be generated as quickly as possible and the flora and fauna systematically monitored.
11. Eco-development committees (EDCs) should be constituted to mobilize the support of the local people for the conservation plans and programmes of the PA.
12. A detailed plan should be drawn up to adopt climate change-resilient management in coordination with the Himachal Pradesh Centre On Climate Change, HPCCC.

13. The manager of the PA must conduct self-MEE exercises, and the records should be maintained for reference in the future for monitoring.
14. Establishment and upgrading of signage is needed (warning, education, information).
15. The matter relating to pollution and siltation needs to be undertaken with the temple authority.
16. The management authority must get support from the Renukaji Development Board in terms of improvement of signage, maintenance of the road and checking pollution and desilting of the wetland.
17. The management of the PA, with the help of the Renukaji Development Board, should regulate the movements of pilgrims inside the PA in order to prevent any eventuality, and those who intend to visit the zoo premises should be levied a nominal fee that could be ploughed back for maintenance of the zoo.
18. Since the zoo is established within the PA, all prevailing rules and regulations of CZA must be followed.
19. As there is a plan to develop a hydro-electric project that involves the construction of a Renuka dam, the management of the PA should ensure that all clearances, viz., wildlife clearance, forest clearance and environment clearance, are obtained.

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12. Sainj Wildlife Sanctuary, Himachal Pradesh

MEE Score- 82.50% (Very Good)

Management Strengths

1. The proximity of Sainj to a city and important tourist destination, Kullu-Manali, and the connectivity with Pin Valley National Park.
2. There is well designed and established corridor, networking and landscape planning between GHNP and Tirthan WLS.
3. Barring one family settlement, the PA is free from encroachments and settlements.
4. Adequate funding is being received on time from state and central schemes (the CSS, CAMPA and CAPEX budgets).
5. The number of human-wildlife conflict cases recorded in and around the national park is insignificant.
6. The staff strength is satisfactory.
7. Mobile allowances are provided to the officers and frontline staff. They can use personal mobiles for wildlife management and protection purposes.
8. The livelihood issues of resource-dependent communities are being addressed effectively through various registered societies.
9. Habitat restoration programmes are planned and monitored well.
10. The site has a comprehensive science-based management plan. Threats are identified, assessed and monitored systematically.

Management Weaknesses

1. Inaccessibility of much of the sanctuary area is a great impediment to ensuring that management interventions in the area are equitable.
2. The site has immense biotic pressures, including livestock grazing and NTFP collection, which were also reported in the first MEE assessment in 2006-07.

3. There is no systematic monitoring of wildlife in the PA.

Immediate Actionable Points

1. More areas in the buffer zone need to be explored to promote trekking and eco-tourism activities through the BTCA and other self-help groups (SHGs) in order to reduce excessive pressure on the existing ecotourism zone in the core zone of the park.
2. The project staff engaged in the NMHS-NLC project need to be involved in making an inventory of the flora and fauna of the sanctuary, monitoring populations and building systematic baseline data.
3. The animal population monitoring and census exercises being held in consultation with local institutions and WII need to be strengthened and conducted regularly to ensure that management interventions for long-term conservation and survival of species and their habitats are based on science.
4. There is scope for further community involvement in the management activities and eco-development and ecotourism programmes in the GHNP landscape to enable marginal fringe communities around the landscape previously reliant upon NTFP and livestock resources to benefit from the economic and social aspects of this new source of sustainable income generation, ecotourism, while reducing the impacts on the environment and wildlife.
5. Facilities need to be provided to sell local products to the Mahela Samiti of the village near Sainj WLS.

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13. Seichu Tuan Nalla Wildlife Sanctuary, Himachal Pradesh

MEE Score- 60% (Good)

Management Strengths

1. The sanctuary has an approved management plan for the period from 2010 -11 to 2020 - 21.shi
2. The level of anthropogenic pressure in the sanctuary is not very high. One village, Murch, is situated within the sanctuary. The area is inaccessible and, therefore, by and large not disturbed.
3. The terrain is mountainous, and the area is mostly inaccessible. The sanctuary harbours rare and endangered high-altitude plants and animals. Most of the area remains permanently covered in snow.
4. The sanctuary has biological, ecological, hydrological, cultural and natural values and is well buffered by the surrounding territorial forests.

Management Weaknesses

1. As the sanctuary is situated in a high-altitude area, most of the area is permanently covered in snow. The other areas are also covered in snow for almost 6 months in a year. The working conditions are harsh, and so the time available for working on management-related activities is short. This calls for timely availability of funds for undertaking management-related works.
2. Patrolling gear and vehicles needed for undertaking winter patrols are not available.
3. Local herders graze their livestock in the alpine areas though banned.

4. Insufficient current staff strength and available facilities for the tough terrain of the sanctuary, such as motorable roads and telephone connectivity.
5. A robust scientific exercise has not been carried out systematically to monitor important wildlife populations in the sanctuary.
6. Lack of awareness among the local community.

Immediate Action Points

1. Rapid surveys or estimates based on robust methods need to be conducted or made for use in the management plan that need revision before 2020-21.
2. The state government may consider increasing the strength of the field staff and providing more field gear and vehicles for winter patrolling. Development of the capacity of the staff to carry out patrols in winter may also be considered.
3. The sanctuary is located in a high-altitude area that remains covered in snow for about 6 months in a year, and the period in which management-related works may be undertaken is short and calls for relaxing procedural protocols. This requirement is time consuming. Funding support needs to be provided in a timely manner to undertake management activities in the short period of time available.

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14. Shikari Devi Wildlife Sanctuary, Himachal Pradesh

MEE Score- 62.93% (Good)

Management Strengths

1. The sanctuary has several important values: ecological, biological, geomorphic, hydrological, cultural, religious, recreational, research and educational.
2. The terrain is by and large mountainous, and many areas are inaccessible.
3. The management has initiated the collection of entry fees from vehicles going to the Shikari Devi temple, and the proceeds are ploughed back into the account of the Biodiversity Conservation Society, Shamshi, Kullu. The revenues will be utilised for sanctuary management activities.

Management Weaknesses

1. Because the sanctuary is located in a high-altitude area, it remains covered in snow for almost 6 months in a year. As a result, the period available for working on management-related activities is short. Timely availability of funds is required for undertaking management-related works.
2. Patrolling gear and the vehicles required for undertaking patrols in winter are lacking.
3. The current staff strength and facilities are not sufficient for the tough terrain of the sanctuary.
4. No robust scientific exercise has been attempted systematically to monitor important wildlife populations in the sanctuary.
5. After the rationalisation of the boundary, there are now 113 villages on the fringes of the sanctuary. The pressures on the sanctuary resources need to be worked out, and more eco-development activities that provide alternatives to fuelwood, etc. may be attempted.

Immediate Action Points

1. The current management plan of the sanctuary will expire in 2021. After the rationalisation of the boundary, there are 113 villages on the fringes of the sanctuary. Steps need to be taken to revise the plan according to the current extent of 29.94 km².
2. Rapid surveys or estimates based on robust methods must be conducted or made. The information obtained can be used in the development of the management plan of the sanctuary after the expiry of the current plan.
3. The state government may consider increasing the strength of the field staff and providing more field gear and vehicles for winter patrolling. The capacity of the staff to carry out patrols may be developed.
4. The sanctuary is located in a high-altitude area that remains covered in snow for about 6 months in a year, and so the period available for undertaking management-related works is short. The government may consider relaxing the procedural protocols associated with works in such areas. The condition of calling for tenders for works, which is time consuming, may be exempted. Funding support may also be provided in a timely manner to undertake management activities in the short period of time available.

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15. Talra Wildlife Sanctuary, Himachal Pradesh
MEE Score- 55.17% (Fair)

Management Strengths

1. The sanctuary is buffered well on all sides by territorial forests. There are no vehicular paths in the sanctuary.
2. There is no habitation inside the sanctuary. The closest habitations are located 3-15 km from the boundary of the sanctuary.
3. The sanctuary has a draft management plan for the period from 2019-20 to 2029-30, awaiting approval.
1. The sanctuary biological, ecological, hydrological, recreational and research & education values.
2. The sanctuary has approved (by MoEFCC in September 2017) Eco Sensitive Zone (22.56 km²).

Management Weaknesses

1. No exercise has been carried out so far to monitor important wildlife populations in the sanctuary and to understand population trends of key species.
2. In spite of bereft of habitations, the grazing pressures of nomadic herders of sheep and goats in summer is a source of disturbance to the resources of the sanctuary.
3. The staff do not have field equipments for imparting effective protection.

Immediate Action Points

1. The draft management plan (2019-20 to 2029-30) needs detailed inputs on the management strategies to be adopted to achieve the management objectives. The draft may be submitted to the competent authority soon for approval.
2. Scientific surveys or estimates based on robust methods may be conducted or made for key species found in the sanctuary.

3. The government may consider providing more field equipment and camping gear and facilities to the protection staff especially for those stationed at tough terrain of the sanctuary.

Evaluators

Dr. V.K. Melkani, Former CWLW, Government of Tamil Nadu

Dr. Vibhu Prakash, Scientist, Vulture Breeding Centre, BNHS

Dr. Jeet Ram, Professor, Kumaun University, Nainital

Dr. K. Sivakumar, Scientist-F, WII

16. Tirthan Wildlife Sanctuary, Himachal Pradesh

MEE Score- 84.17% (Very Good)

Management Strengths

1. The proximity to a city and important tourist destination, Kullu-Manali, and the connectivity with Pin Valley National Park.
2. There is well designed and established corridor, networking and landscape planning between GHNP, and Sainj WLS.
3. Adequate funding for is being received on time from state and central schemes (the CSS, CAMPA and CAPEX budgets).
4. The number of human-wildlife conflict cases recorded in and around the park is insignificant.
5. The staff strength is satisfactory.
6. Mobile allowances are provided to officers and the frontline staff. They can use personal mobiles for wildlife management and protection purposes.
7. The livelihood issues of resource-dependent communities are being addressed effectively through various registered societies.
8. Habitat restoration programmes are planned and monitored well.
9. The site has a comprehensive science-based management plan. Threats are identified, assessed and monitored systematically.

Management Weaknesses

1. Inaccessible of much of the sanctuary area is a great impediment to ensuring that the management interventions in the area are equitable.
2. The site has immense biotic pressures including livestock grazing and NTFP collection, which are continuing from the first MEE assessment, which was carried out in 2006-07.
3. There is no systematic monitoring of wildlife in the PA.

Immediate Actionable Points

1. More areas in the buffer zone need to be explored to promote trekking and ecotourism activities through the BTCA and other self-help groups (SHG) in order to reduce excessive pressure on the existing ecotourism zone in the core zone of the park.
2. The project staff engaged in the NMHS-NLC project need to be involved in making an inventory of the fauna and flora of the sanctuary, population monitoring and building systematic baseline data.
3. The animal population monitoring and census exercises conducted in consultation with local institutions and WII need to be strengthened and carried out regularly to ensure that management interventions made for long-term conservation and survival of species and their habitats are effective and based on science.

4. There is scope for further community involvement in the management activities and eco-development and ecotourism programmes in this landscape to enable marginal fringe communities around the landscape previously reliant upon NTFP and livestock resources to benefit from the economic and social aspects of this new source of sustainable income generation, ecotourism, while reducing the impacts on the environment and wildlife.

Evaluators

Shri B.S. Bonal, Former ADG (PT) & MS, NTCA

Dr. Khurshid Ahmad, Professor, Sher-e-Kashmir (SKUAST), Jammu & Kashmir

Dr. Justus Joshua, Green Peace Foundation, Gujarat

Dr. S. Sathyakumar, Scientist-G, WII

17. Tundah Wildlife Sanctuary, Himachal Pradesh

MEE Score- 60% (Good)

Management Strengths

1. The level of anthropogenic pressure in the sanctuary is not very high due to absence of villages inside and inaccessibility of the area.
2. The sanctuary harbours high-altitude plants and animals.
3. The sanctuary has biological, ecological, hydrological, cultural and natural values, and it is well buffered by the surrounding territorial forests.

Management Weaknesses

1. The sanctuary, being situated in a high-altitude area, remains covered in snow for almost 6 months in a year. The working conditions are harsh, and the period in which work can be carried out on management-related activities is short. Timely availability of funds for undertaking management-related works is called for.
2. There is no patrolling gear nor vehicles for undertaking winter patrolling.
3. The sanctuary lacks in approved management plan to guide and prioritise various management inputs for effective delivery of outputs in tune with the management objectives of the sanctuary.
4. The local community have no rights in the sanctuary. Even so, local and other herders graze livestock in the alpine areas.
5. The current staff strength and available facilities are not sufficient for the tough terrain of the sanctuary.
6. No attempt has been made to carry out a robust scientific exercise to monitor important wildlife populations in the sanctuary systematically.
7. Awareness is lacking among the local community.

Immediate Action Points

1. The management plan of the sanctuary (under preparation) may be finalised soon and approval obtained from the competent authority at the earliest.
2. Rapid surveys or estimates based on robust methods must be conducted or made now. The information obtained must be used in preparing the management plan of the sanctuary.
3. The state government may consider increasing the strength of the field staff, providing more field gear and vehicles for winter patrolling and developing the capacity of the staff to undertake patrols in winter.
4. The sanctuary is located in a high-altitude area that remains covered in snow for about 6 months in a year, and the period available for undertaking management-related

works is short. The government may consider relaxing the procedural context by exempting the condition of calling for tenders for works. This procedure is time consuming. The government may also provide funding support in a timely manner for undertaking management activities in the short period of time available.

Evaluators

Dr. V.K. Melkani, Former CWLW, Government of Tamil Nadu

Dr. Vibhu Prakash, Scientist, Vulture Breeding Centre, BNHS

Dr. Jeet Ram, Professor, Kumaun University, Nainital

Dr. K. Sivakumar, Scientist-F, WII

JAMMU & KASHMIR

MEE Team of Northern Region evaluated 7 sanctuaries of Jammu & Kashmir. Detailed report of each NP&WLS discussed separately. The specific recommendations in brief are given below:

1. While Nandini Wildlife Sanctuary falls in the Lower Shivalik Range, the other two PAs are high altitude areas which are under snow cover for six months during the winter season.
2. The period of execution of many management activities is limited and calls for early release of funds to these PAs.
3. The Management Plan for all these PAs will have to be finalized and approved by the Competent Authority at the earliest. It was informed that the Plans are under preparation. The Team could see the draft Plan for Overa-Aru Wildlife Sanctuary.
4. Since no estimation details of the population of important wildlife has been done so far (except for KHANP way back in 2006), it is very essential that rapid surveys/population estimation at least of the key species of the PAs following robust scientific methods is conducted now and on subsequent periods to know the population trends. This information will be of immense for the Management Plan of these PAs which are under preparation now.
5. The levels of Human-Wildlife Conflict in the zone of influence (5 Km. from the sanctuary boarder) is high, causing human death, injury, crop damage and livestock killing.
6. The package of compensation approved by the government does not cover crop damage by wildlife and killing of livestock. The government may consider providing appropriate compensation for these cases. It is available in many other states. And local people demand appropriate compensation for crop damage and loss of livestock.
7. For the high-altitude areas like KHANP and Overa-Aru Wildlife Sanctuary, which are under snow cover for more than six months during winters. The period of work available is very short. The government may consider to relax some of the procedural protocols like calling for tenders which consumes much time as a special case for such remote and snow bound areas.
8. Cattle grazing (specially sheep and goats) by the nomadic as well as the local herder's pose threat to KHANP and Overa-Aru Wildlife Sanctuary. The assessment of the number of cattle by the herders and the population trend of cattle is lacking in the Management Plan. It is suggested that workable management interventions e.g. rotational grazing, closure of unique habitats, creation of better awareness among the herders, examining alternative options for livelihood enhancement to the community which may encourage them to reduce numbers of cattle over a period of time may be attempted.