Greenko Energies Private Limited
CIN: U40109TG2000FTC034990

Ref: GEPL/DFO-EDS reply/SPSP/23062023 **Dated 23.06.2023**

To,

Deputy Conservator of Forests
Baran Territorial Forest Division
Rajasthan

Sub: Diversion of 407.8227 Ha (Old extent-413.9002 Ha). forest land for the development of Shahpur (1800 MW) Pumped Storage Project by M/s Greenko Energies Private Limited (GEPL) in Baran Territorial Forest Division, Baran District of Rajasthan State (Online Proposal No. FP/RJ/HYD/121439/2021)-reg

Ref: Your Office EDS letter dated 09.06.2023.

Dear Sir,

With reference to above mentioned subject matter, reply to the above referred EDS letter is herewith submitted for your kind consideration and further necessary action. The extent of the area proposed for diversion now stands modified as 407.8227 Ha instead of 413.9002 Ha. Kindly provide access in PARIVESH to incorporate the changes.

Thanking you,
Yours faithfully,

For **Greenko Energies Pvt. Ltd.**

Authorized Signatory

Encl: As above

Regd. Office: Plot No.1071, Road No.44, Jubilee Hills, Hyderabad-500033, Telangana, Ph: 040-40301100, Fax: 040-40301101, Email: info@greenkogroup.com

Reply to EDS raised by O/o DFO, Baran vide letter dated 09.06.2023 regarding diversion of forest land for the construction of Shahpur Pumped Storage Project (1800 MW) by M/s Greenko Energies Private Limited, Hyderabad in Baran Forest Division, Baran District of Rajasthan State (Online proposal No. FP/RJ/HYD/121439/2021)

#	Observation	Remarks
1	In Section (H) of Part-I, "No" has been mentioned in relation to the requirement of clearance by the user agency under the Environment Protection Act, 1986. While the approval dated 13.04.2020 issued by the Ministry of Forest, Environment and Climate Change has been attached with the proposal. which is mutually contradictory.	• Environmental Clearance is applicable to the project and the same has been updated in Section (H) of Part I of the diversion proposal.
2	In Section (I) of Part-I, it is mentioned that the proposed project is not located in any protected area. Re-check whether it is a part of recently declared Conservation Reserve or not, if so, make amendments accordingly.	• The Forest diversion proposal was submitted by the user agency initially in February 2021, whereas Shahbad Conservation Zone was declared in October, 2021, which is at a later date after submission of Forest diversion proposal, hence it was not mentioned initially. • Now that as the Shahbad Conservation Zone was declared, it was evaluated that the area proposed for diversion partly falls under newly declared Shahbad Conservation Zone. • In this regard it is pertinent to submit that as per MoEF & CC, Office Memorandum F.N.6-30/2019-WL, dated 06.05.2022, applicability of Wildlife Clearance from Standing Committee of NBWL has been excluded for areas falling in Conservation Reserves. • Further, it is pertinent to submit that during the preparation of EIA/EMP studies, primary surveys were carried out and no RET species were recorded from the area proposed for diversion. However, considering the presence of newly declared Shahbad Conservation Zone, a detailed Wildlife Conservation Plan has been prepared and submitted to Chief Wildlife Warden, Jaipur for approval. Once the detailed Plan is approved by the

Reply to EDS raised by O/o DFO, Baran vide letter dated 09.06.2023 regarding diversion of forest land for the construction of Shahpur Pumped Storage Project (1800 MW) by M/s Greenko Energies Private Limited, Hyderabad in Baran Forest Division, Baran District of Rajasthan State (Online proposal No. FP/RJ/HYD/121439/2021)

#	Observation	Remarks
		State Govt, the same shall be implemented in to-to.
3	In Section (J) of Part-1, status of project location in scheduled area is not mentioned. Clarify the position, whether the proposed area comes in Sahariya Scheduled Area or not.	• The area proposed for diversion *inter-alia* Baran district does not fall in scheduled area list notified by the Rajasthan State Govt as per notification dated 19th May 2018.
4	In Section L(iii) of Part-I, it is seen that compensatory tree plantation is proposed in only one district. However, for CA scheme implementation as per Part II it is seen that NFL is identified in Jaisalmer District and DFL has been identified in Baran district.	• It is true that for CA scheme implementation, NFL has been identified in Jaisalmer District and DFL has been identified in Baran district Accordingly section L(iii) of Part-I has been updated.
5	As per the attached muck disposal plan, a total of 15.61 Mcum of muck production has been estimated. It has not been mentioned how much of the muck will be used for the project, as the muck produced comes under the category of forest produce. The commitment to deposit the amount in the department has not been submitted.	• A detailed Muck Disposal Plan has been prepared and submitted as part of Forest Diversion proposal including the quantity of muck generated, utilization and disposal. • As directed necessary undertaking to pay the royalty towards muck utilization as enclosed as **Annexure-01**
6	As point no viii, xiii and xxvi of the additional ToR issued by MoEF & CC vide letter dated 13.04. 2020, No plan/scheme has been submitted nor any undertaking has been submitted in this regard.	• Point (viii, xiii, xxvi)-A detailed Wildlife Conservation Plan has been prepared and submitted to Chief Wildlife Warden, Jaipur for approval. The same shall be implemented once approved by the State Govt. **(Copy enclosed Annexure-02).** Further, Biodiversity Management and Wildlife Conservation Plan were *inter-alia* included in the EIA/EMP report under section 10.4 (**copy enclosed Annexure-03)** • Further, necessary undertaking to implement the wildlife conservation plan as approved by the State Govt is enclosed as **Annexure-04**
7	In Section 4 (ii) of Part-II, under column-3 (local name) there are many deficiencies in the spelling of the names of the species available in the area, and local name	• To be addressed by O/o DFO, Baran.

#	Observation	Remarks
	mentioned in front of others, Also mark the scientific name in brackets.	
8	It is not clear from the point number-4 of Part-II the compiled calculation form of the trees coming in the attached proposal whether 12604 plants are available in the proposed entire area or in the sample area, if in the sample area then how much area, please mention	• 12604 no. of trees mentioned in Part II of the diversion proposal is for the sample plot area of about 40.79 ha i.e 10 % of the total area proposed for diversion. • Necessary undertaking for carrying out total tree enumeration after Stage I approval is herewith submitted as **Annexure-05**
9	It has not been clarified by the user agency that how many trees are coming in the project area, an undertaking should be submitted regarding the cutting of trees at the expense of the user agency and transport to the departmental depot.	• Based on sample plot method about 126071 trees are likely to be involved in the entire project area. • Necessary undertaking regarding felling of trees at the expense of the user agency and transport to the departmental depot is herewith submitted as **Annexure-06**
10	In section 4 of Part-II -the number of trees is FRL-2 and FRL-4 has been stated as nil. Explain the situation.	• Since the proposed project involves construction of artificial embankments above the natural ground level and are located/created away from natural stream/reservoirs, criteria for restriction of trees at FRL-2 & FRL-4 is not applicable. • Further, as per the proposed project is a Closed Loop Project, any floating material present in the reservoirs will damage the turbines/machines hence retention of trees between FRL-2 and FRL-4 is not possible and not applicable as mentioned above.
11	In point number-5 of Part-II, working plan prescription plantation working circle has been recorded which does not seem correct considering the density of vegetation available, it is proposed to be included in protection working circle.	• To be addressed by O/o DFO, Baran.
12	In point number 8 (i) of Part-II, the species of wildlife available around the area is expected	• To be addressed by O/o DFO, Baran.

Reply to EDS raised by O/o DFO, Baran vide letter dated 09.06.2023 regarding diversion of forest land for the construction of Shahpur Pumped Storage Project (1800 MW) by M/s Greenko Energies Private Limited, Hyderabad in Baran Forest Division, Baran District of Rajasthan State (Online proposal No. FP/RJ/HYD/121439/2021)

#	Observation	Remarks
	to be re -checked and marked on bases of wildlife census of the last five years.	
13	Point No. 8 (V) of Part-II RET species Flora and Fauna, has been stated to be non-existence, which is contradictory considering the flora available in the area and the wild species given in 8 (i).Display correct status.	• To be addressed by O/o DFO, Baran.
14	In the area of the project proposed by you, 8 feet high wall and 4-5 underpasses have been proposed to connect both the areas and tree plantation in 615 hectares, but no reasonable basis has been given for this. Where and how the underpass will be made is not clear. Re-analyze these works, if any work needs to be done, then mention in your site inspection report.	• To be addressed by O/o DFO, Baran.
15	For residual plants proposed for plantation in DFL have been proposed in Forest Circle Bara in Sumera Bhoyal block but the said forest block has not been mentioned in check list number-18.	• To be addressed by O/o DFO, Baran.
16	You have submitted the site inspection report in check list-16 which is not complete. Point numbers A and B of the report which are applicable are required to be bolded. Report is expected as desired in point-C.	• To be addressed by O/o DFO, Baran.
17	Land suitability certificate has been given only for NFL, Land suitability certificate for DFL is also required.	• To be addressed by O/o DFO, Baran.
18	According to point number-2 of Part-II, the proposed forest land is protected forest land, a copy of its gazette notification is to be attached.	• To be addressed by O/o DFO, Baran.
19	In Part II, Point 15, under site inspection report, area of 413.0092 hectare has been mentioned instead of 413.9002 ha. Necessary correction to be done.	• To be addressed by O/o DFO, Baran.
20	The CA scheme prepared for NFL has to be amended in the area of Block D.	• To be addressed by O/o DFO, Baran.

Reply to EDS raised by O/o DFO, Baran vide letter dated 09.06.2023 regarding diversion of forest land for the construction of Shahpur Pumped Storage Project (1800 MW) by M/s Greenko Energies Private Limited, Hyderabad in Baran Forest Division, Baran District of Rajasthan State (Online proposal No. FP/RJ/HYD/121439/2021)

#	Observation	Remarks
21	The road from the Lower Reservoir to the Upper Reservoir is not be built till the Upper Reservoir. If so, then why is there a need to build a road up to NH-76. If not, then get it amended.	• The proposed road from NH-76 to the Upper Reservoir (UR) is required for transport of heavy Machinery like Turbines/Transformers etc. • Further the proposed road from Lower Reservoir (LR) to Upper Reservoir (UR) is required for movement for machinery between LR & UR and Power House and for regular maintenance operations.
22	The road from Upper Reservoir to NH-76 is passing through middle of the forest land, dividing the forest into two parts. This road should be taken in the revenue land of Kaloni village on the border of the forest block, accordingly the proposal should be amended.	• As suggested, the road has been realigned and forest diversion proposal is amended accordingly.

N. Gopi Krushna

Gopi Krushna N
Deputy General Manager (DGM)
Authorised Signatory
Greenko Energies Private Limited

Date: 24-06-2023
Place: Hyderabad

Gopi Krushna Nikku
Authorised Signatory

ANNEXURE-1

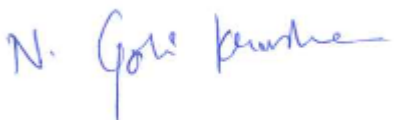
Full title of the Project	:	Construction of Shahpur (1800 MW) Pumped Storage Project by M/s Greenko Energies Private Limited, in Hanumanthkhera, Mungawali villages, G.P-Subhdhara; Baint Village, G.P-Bichi; Sahjanpur Villages, G.P-Kasba Nonera; Kaloni, Shahpur Villages, G.P-Mundiyar; Tehsil-Shahbad; Baran District, Rajasthan.
Proposal no	:	FP/RJ/HYD/121439/2021
Date of Proposal	:	03-02-2021
Diversion Area	:	407.8227 Ha

CERTIFICATE TO PAY ROYALTY FOR MUCK UTILISED

M/s Greenko Energies Private Limited hereby affirm and undertake to pay the royalty, if any payable towards usage of muck for the project falling in the forest produce category.

Date: 24.06.2023

Name: Gopi Krushna N



Gopi Krushna N
Deputy General Manager (DGM)
Authorised Signatory
Greenko Energies Private Limited

Place: Hyderabad

Authorized Signatory

ANNEXURE-2

Greenko Energies Private Limited
CIN: U40109TG2000PTC034990

GEPL/RJ01/CLW/230412

Dated:12-04-2023

To

PCCF & Chief Wildlife Warden
Govt. of Rajasthan
Aranya Bhawan, Mahatma Gandhi Rd,
Jhalana Institutional Area, Jawahar Nagar,
Jaipur, Rajasthan 302004

Sub: Development of Shahpur (1800 MW) Standalone Pumped Storage Project in Baran District, Rajasthan by M/s Greenko Energies Private Limited-**Submission of Wildlife Conservation Plan-reg**

Ref: **Terms of Reference (TOR) issued by Ministry of Environment, Forests and Climate change (MoEF & CC) vide letter dated 13-04-2020.**

Sir,

M/s Greenko Energies Private Limited (GEPL) is in process of developing (1800 MW) Shahpur Pumped Storage Project falling under Shahpur, Kaloni, Hanumatkhera, Sahjanpur, Mungawali villages in Shahbad Tehsil of Baran District of Rajasthan.

Ministry of Environment, Forest and Climate Change (MoEF&CC), while recommending the Project for Terms of Reference (TOR) for preparation of EIA/EMP report has *inter-alia* stipulated for preparation of conservation plan for Schedule I species, if any. (viii of 8 of additional ToR dated, 13.04.2023).

No, Schedule I species were reported during the primary studies under EIA/EMP. However, as the project is located in the newly declared Shahbad Conservation Reserve and based on secondary references from the Baran Division Forest Working Plan. A Wildlife Management and Conservation Plan for Schedule I Species is prepared and submitted herewith for your kind approval **(Annexure-I).** Out of total budget of Rs. 136.75 lakhs allocated for Biodiversity Conservation and Wildlife Management Plan in EIA report, a separate Conservation plan has been prepared for Schedule I Species with a budget of Rs. 50.00 lakhs to be allocated specifically for this work.

In view of the above, you are requested to kindly approve the said Wildlife Management and Conservation Plan for Schedule I Species.

Thanking You
Yours Sincerely
For **Greenko Energies Private Limited**

N. Gopi Krishna
Authorized Signatory

Greenko Energies Pvt. Ltd.

Enclosures: As above

Conservation Plan for Schedule-I species

1. Leopard (*Panthera pardus*),
2. Indian Monitor Lizard (*Varanus bengalensis*), and
3. Indian Rock Python (*Python molurus molurus*)

Prepared for:

SHAHPUR PUMPED STORAGE PROJECT

District Baran, Rajasthan

Greenko Energies Pvt. Ltd.

Prepared by:

R S Envirolink Technologies Pvt. Ltd.

403, Bestech Chamber Commercial Plaza,

B-Block, Sushant Lok-I, Gurugram

Phone: +91-124-4295383: www.rstechnologies.co.in

CONTENTS

Page No.

LIST OF TABLES

LIST OF FIGURES

1. INTRODUCTION

Pumped Storage Projects (PSP) presents an optimal, economically viable & scalable solution to supply Schedulable Power On-Demand (SPOD) with both base load and peak load capabilities to the Nation.

Greenko Energies Pvt. Ltd. has identified suitable location for Pumped Storage Project (PSP) near Kaloni, Baint and Mungawali villages (Near Shahpur), Shahabad Tehsil, Baran District, Rajasthan.

1.1 PROPOSE OF REPORT

In reference to additional conditions of Terms of Reference (ToR) issued by Ministry of Environment, Forest, and Climate Change (MoEF&CC), Government of India vide letter no. J-12011/02/2020-IA-I, dated: 13.04.2020, directed to submit Conservation plan for the Scheduled I species reported from the study area. In pursuant to the condition of ToR, the Conservation Measures of Schedule-I species is prepared. It is pertinent to mention that none of the Schedule-I species were reported in the primary survey during EIA/EMP studies. However, Common Leopard (*Panthera pardus*), Indian Monitor Lizard (*Varanus bengalensis*), and Indian Rock Python (*Python molurus molurus*) are the Schedule-I species reported from the study area.

1.2 PROJECT LOCATION

Proposed Shahpur Pumped Storage Project (PSP) is located near Kaloni, Baint, Mungawali, Hanumatkhera, Balarpur, Shahpur villages, Baran District of Rajasthan. It envisages creation of upper reservoir & lower reservoir which are located away from all existing natural river systems and have negligible catchment areas. The project sites are accessible from NH-76 road close to Mahuri Khera from where Shahpur village road takes off; and is at a distance of approximately 6 Km. Nearest railhead is Baran Railway Station, about 77 kms from project site and nearest Airport is Gwalior Airport, about 200 km from project site The powerhouse is located near Shahpur village, which is in Shahabad Tehsil of Baran district.

This scheme envisages non-consumptive re-utilization of water by re-circulation. The water from the proposed lower reservoir will be pumped up and stored in the proposed upper Reservoir and will be utilized for power generation. The Geographical co-ordinates of the proposed upper reservoir are at longitude 77° 10' 55.78"E and latitude is 25° 11' 25.21"N and that of proposed lower reservoir are 25°11'40.00"N and 77° 11' 50.00"E (**refer Figure 1**).

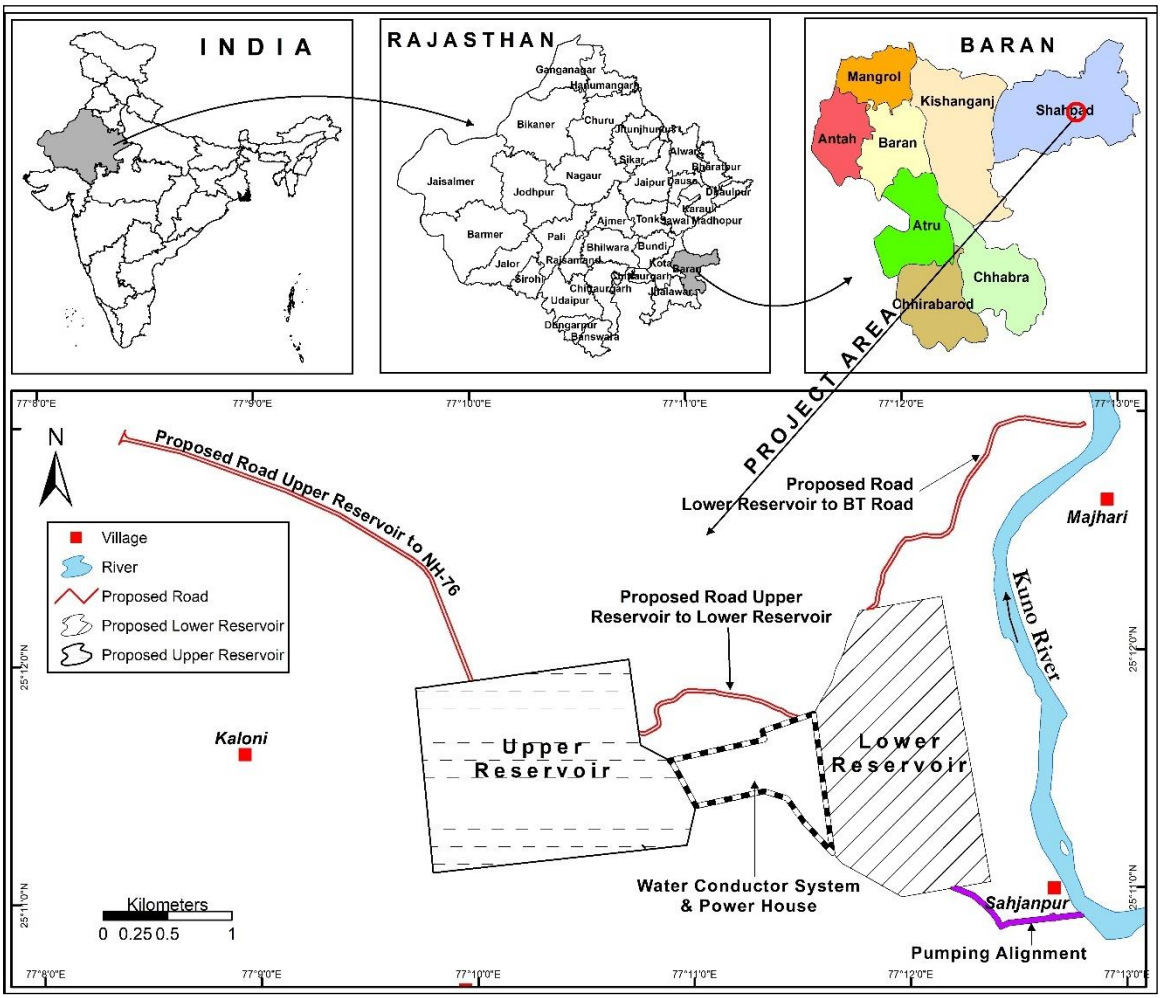


Figure 1: Project Location Map

1.3 PROJECT DESCRIPTION

The Shahpur Standalone Pumped Storage Project envisages construction of both upper reservoir and lower reservoir in Baran district of Rajasthan and involves construction of rockfill embankment with avg height of 24.5 m for the length of 5309 m for creation of Shahpur PSP upper reservoir with 1.21 TMC gross capacity and construction of rockfill embankment with avg height of 26.5 m for the length of 2937 m for creation of Shahpur PSP lower reservoir with 1.05 TMC gross capacity. Total 6 numbers of Independent Head Race Pipe / Pressure Shaft with one pressure Tunnel bifurcating into two-unit pressure tunnel convey water between Lower and Upper reservoirs. Surface Power/Pump House will be located at about 830 m from the intake structure and shall be equipped with six vertical shaft reversible Francis type units composed each of a generator/motor and a turbine/pump having generating/pumping capacity of 300 & 150 MW/330 & 165MW. The Layout map of proposed project is given at **Figure 2**.

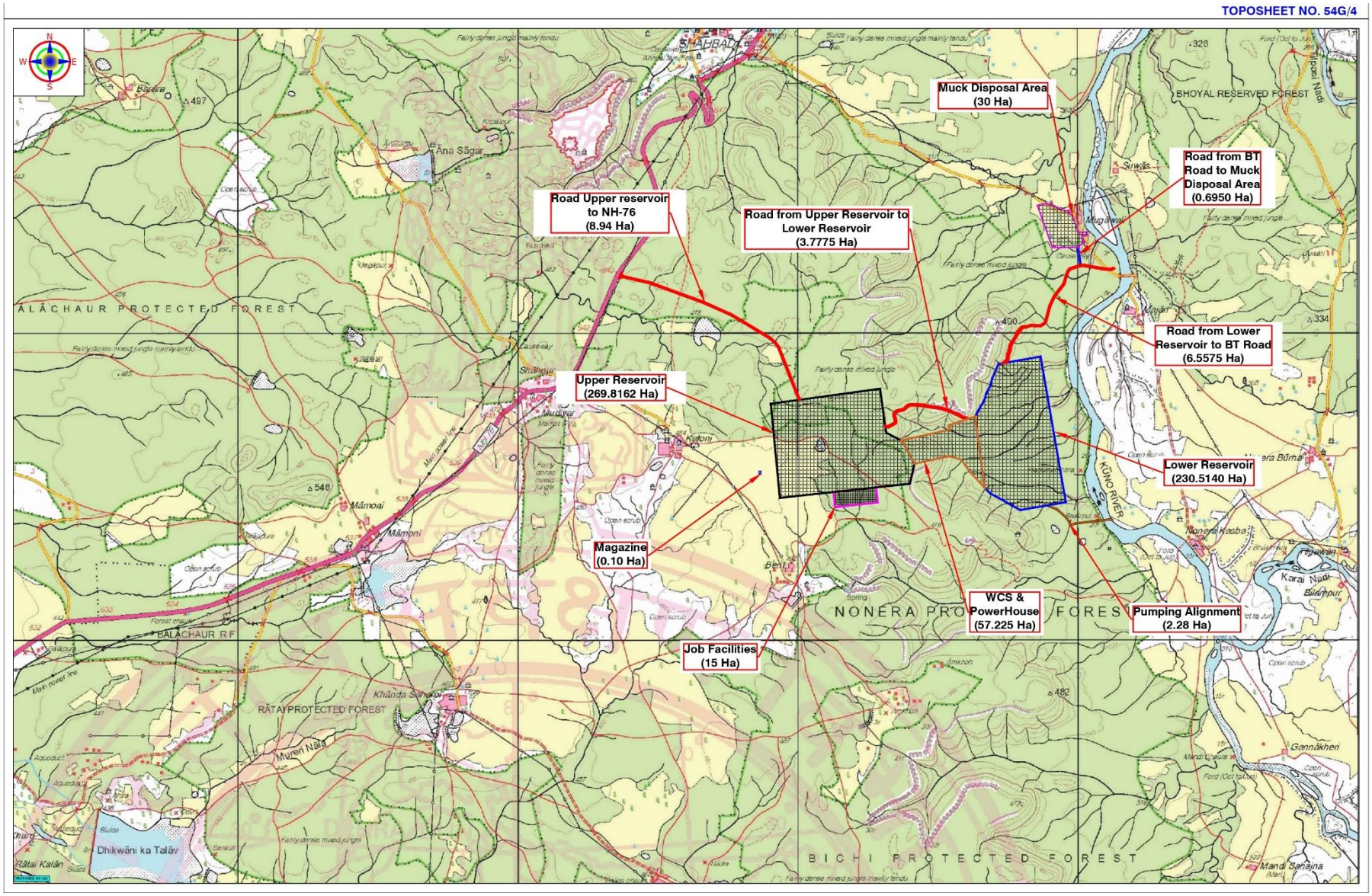


Figure 2: Project Layout on Toposheet

1.4 Description of Flora and Fauna of the Project Area

1.4.1 Forest Types in the Study Area

Forests comprised of Deciduous forest and Scrub forest constitute nearly 45% of the study area. These forests are comprised primarily of Southern Tropical Dry Deciduous Forests classified according to 'A Revised Survey of the Forest Types of India' by Champion and Seth (1968).

The most common tree species in the forest area are with *Anogeissus pendula, Madhuca longifolia, Terminalia tomentosa, Terminalia bellirica, Lannea coromandelica, Boswellia serrata, Acacia catechu and Ziziphus jujuba.,* etc. While, *Asparagus racemosus, Butea superba, Justicia adhatoda, Lantana camara, Murraya koenigii, Phyllanthus reticulatus, Trema politoria, and Woodfordia fruticosa* were the dominant shrub species found in the area.

The project area harbors 203 plant species belonging to angiosperms was compiled which includes plant species found in forested areas, near agricultural fields and settlements, abandoned land, etc. This list includes 62 species of trees, 55 species of shrubs, and 86 herbaceous species.

As per IUCN Red List of Threatened Species (Version 2022-2), none of the plant species found in the study area falls under any Threatened category.

1.4.2 Faunal Elements

The fauna of the study area has been compiled with the help of direct sighting during field surveys, supplemented with secondary sources and information provided by local people during a field survey in the study area. For the preparation of a checklist of fauna in the study area, the Forest Working Plan of the Baran Forest Division was consulted.

a) Mammals

In the study area, species like *Semnopithecus entellus* (Common Langur)*, Macaca mulatta* (Rhesus macaque), *Canis aureus* (Jackal), *Herpestes edwardsii* (Indian Grey Mongoose), and *Funambulus pennantii* (Five-striped Palm Squirrel) were sighted during the field survey. In addition to the presence of *Sus scrofa* (Wild Boar) and *Lepus nigricollis* (Common Hare) was also confirmed by villagers.

In addition, the presence of *Panthera pardus* (Leopard), *Axis axis* (Spotted deer), *Vulpes bengalensis* (Fox) and *Canis aureus* (Jackal), were also confirmed by villagers. The Forest Working Plan of Baran Forest Division has reported the presence of mammals like Leopard (*Panthera Pardus*), Common Wolf (*Canis lupus*), Spotted Dear (*Axis axis*), Sambar Deer (*Rusa unicolor*), and Chinkara (*Gazella gazella*), etc., in their jurisdiction. However, during the field surveys, none of these mammalian species were sighted in the study area. Locals also did not confirm the probable presence or sighting of Common Wolf, Sloth bear, Sambar Deer and Chinkara in the study area.

A list of 15 species of mammals with their conservation status reportedly found in the study area was compiled and the same is given in **Table 1**.

Table 1: List of Mammalian Species Reported in the Study Area

S. No.	Order/ Family	Common Name	Scientific Name	Conservation Status	
				IUCN 2022-2	WPA 1972
	CARNIVORA				
1	Canidae	Fox	*Vulpes bengalensis*	LC	II
2	Canidae	Jackal	*Canis aureus*	LC	II
3	Felidae	Common Leopard	*Panthera Pardus*		
4	Herpestidae	Mongoose	*Herpestes edwardsii*	LC	II
	CETARTIODACTYLA				
5	Bovidae	Nilgai/Blue Bull	*Boselaphus tragocamelus*	LC	III
6	Cervidae	Sambar	*Rusa unicolor*	VU	III
7	Cervidae	Chital	*Axis axis*	LC	III
8	Suidae	Wild Boar	*Sus scrofa*	LC	III
	LAGOMORPHA				
9	Leporidae	Common Hare	*Lepus nigricollis*	LC	IV
	PRIMATES				
10	Cercopithecidae	Rhesus macaque	*Macaca mulatta*	LC	II
11	Cercopithecidae	Common Langur	*Semnopithecus entellus*	LC	II
	RODENTIA				
12	Hystricidae	Porcupine	*Hystrix indica*	LC	IV
13	Sciuridae	Five-striped Palm Squirrel	*Funambulus pennantii*	LC	IV
	Chiroptera				
14	Pteropodidae	Bat	*Rousettus leschenaulti*	LC	IV
	Eulipotyphla				
15	Soricidae	House Shrew	*Suncus murinus*	LC	-

IUCN Ver. 2022-2 - *International Union for Conservation of Nature; LC - Least Concern; VU: Vulnerable; WPA – Wildlife (Protection) Act, 1972*

b) Avifauna

Birds sighted during the survey were identified using the field guide of birds by Ali & Ripley (1983), Grimmett *et al.* (1998, 2011), Inskipp *et al.* (1999), and Kazmierczak (2000). The classification and nomenclature of bird species are as per https://avibase.bsc-eoc.org.

During the field surveys, 52 species of birds belonging to 12 Orders were recorded from the study area. Birds like House sparrow, White-Throated Kingfisher, Dove, Common Myna, House crow, Red-wattled Lapwing, Red-vented bulbul, Rock Pigeon, Black Drongo, and Cattle Egret were most frequently sighted bird species in the study area. Most of the birds recorded are resident in nature. Bird species like Wood Sandpiper, White Wagtail and Western Yellow Wagtail are winter visitor in the area. A list of bird species composition and their conservation status has been described in **Table 2.**

Table 2: List of birds reported from the study area with their conservation status

S. No.	Family	Common Name	Scientific name	Residential Status	Conservation Status	
					IUCN (2022-2)	WPA, 1972
	Order: Anseriformes					
1	Anatidae	Indian Spot-billed Duck	*Anas poecilorhyncha*	R	LC	IV
	Order: Bucerotiformes					
2	Upupidae	Common Hoopoe	*Upupa epops*	R	LC	IV

S. No.	Family	Common Name	Scientific name	Residential Status	Conservation Status	
					IUCN (2022-2)	WPA, 1972
	Order: Charadriiformes					
3	Charadriidae	Red-wattled Lapwing	*Vanellus indicus*	R	LC	IV
4	Recurvirostridae	Black-winged Stilt	*Himantopus himantopus*	R	LC	IV
5	Scolopacidae	Wood Sandpiper	*Tringa glareola*	WV	LC	IV
	Order: Apodiformes					
6	Apodidae	Little Swift	*Apus affinis*	R	LC	IV
	Order: Columbiformes					
7	Columbidae	Laughing Dove	*Streptopelia senegalensis*	R	LC	IV
8	Columbidae	Spotted Dove	*Spilopelia suratensis*	R	LC	IV
9	Columbidae	Eurasian Collard-Dove	*Streptopelia decaocto*	R	LC	IV
10	Columbidae	Rock Dove	*Columba livia*	R	LC	IV
	Order: Coraciiformes					
11	Alcedinidae	Common Kingfisher	*Alcedo atthis*	R	LC	IV
12	Alcedinidae	Pied Kingfisher	*Ceryle rudis*	R	LC	IV
13	Alcedinidae	White-throated Kingfisher	*Halcyon gularis*	R	LC	IV
14	Coraciidae	Indian Roller	*Coracias benghalensis*	R	LC	IV
15	Meropidae	Asian Green Bee-eater	*Merops orientalis*	R	LC	IV
	Order: Cuculiformes					
16	Cuculidae	Western Koel	*Eudynamys scolopaceus*	R	LC	IV
17	Cuculidae	Greater Coucal	*Centropus sinensis*	R	LC	IV
	Order: Passeriformes					
18	Alaudidae	Rufous-tailed Lark	*Ammomanes phoenicura*	R	LC	IV
19	Cisticolidae	Common tailorbird	*Orthotomus sutorius*	R	LC	IV
20	Cisticolidae	Rofous-Fronted Prinia	*Prinia buchanani*	R	LC	IV
21	Cisticolidae	Graceful Prinia	*Prinia gracilis*	R	LC	IV
22	Cisticolidae	Grey-breasted Prinia	*Prinia hodgsonii*	R	LC	IV
23	Cisticolidae	Ashy Prinia	*Prinia socialis*	R	LC	IV
24	Corvidae	Large-billed Crow	*Corvus macrorhynchos*	R	LC	IV
25	Corvidae	House Crow	*Corvus splendens*	R	LC	V
26	Corvidae	Rufous Treepie	*Dendrocitta vagabunda*	R	LC	IV
27	Dicruridae	Black Drongo	*Dicrurus macrocercus*	R	LC	IV
28	Estrildidae	Scaly-breasted Munia	*Lonchura punctulata*	R	LC	IV
29	Hirundinidae	Wire-tailed Swallow	*Hirundo smithii*	R	LC	IV
30	Laniidae	Long-tailed Shrike	*Lanius schach*	R	LC	IV
31	Leiothrichidae	Jungle Babbler	*Turdoides striata*	R	LC	IV
32	Motacillidae	White Wagtail	*Motacilla alba*	WV	LC	IV
33	Motacillidae	Western Yellow Wagtail	*Motacilla flava*	WV	LC	IV
34	Muscicapidae	Brown Rock Chat	*Oenanthe fusca*	R	LC	IV
35	Muscicapidae	Oriental Magpie-Robin	*Copsychus saularis*	R	LC	IV
36	Muscicapidae	Indian Robin	*Saxicoloides fulicatus*	R	LC	IV
37	Passeridae	House Sparrow	*Passer domesticus*	R	LC	IV
38	Ploceidae	Baya Weaver	*Ploceus philippinus*	R	LC	IV
39	Pycnonotidae	Red-vented Bulbul	*Pycnonotus cafer*	R	LC	IV
40	Sturnidae	Common Myna	*Acridotheres tristis*	R	LC	IV
41	Sturnidae	Asian Pied Starling	*Gracupica contra*	R	LC	IV
42	Sturnidae	Brahminy Starling	*Sturnia pagodarum*	R	LC	IV
	Order: Pelecaniformes					
43	Ardeidae	Grey Heron	*Ardea cinerea*	R/WV	LC	IV
44	Ardeidae	Indian Pond-Heron	*Ardeola grayii*	R	LC	IV

S. No.	Family	Common Name	Scientific name	Residential Status	Conservation Status	
					IUCN (2022-2)	WPA, 1972
45	Ardeidae	Cattle Egret	*Bubulcus ibis*	R	LC	IV
46	Ardeidae	Little Egret	*Egretta garzetta*	R	LC	IV
	Order: Piciformes					
47	Ramphastidae	Coppersmith Barbet	*Psilopogon haemacephalus*	R	LC	IV
	Order: Psittaciformes					
48	Psittaculidae	Rose-ringed Parakeet	*Psittacula krameri*	R	LC	IV
	Order: Suliformes					
49	Phalacrocoracidae	Little Cormorant	*Microcarbo niger*	R	LC	IV
	Order: Gruiformes					
50	Rallidae	Common Moorhen	*Gallinula chloropus*	R	LC	IV
51	Rallidae	White-breasted Waterhen	*Amaurornis phoenicurus*	R	LC	IV
	Order: Strigiformes					
52	Strigidae	Eurasian Eagle-owl	*Bubo bubo*	R	LC	IV

IUCN Red List of Threatened Species. Version 2022-2.; LC - Least Concern; IWPA – Wildlife (Protection) Act, 1972, LC: Least Concern; R: Resident; WV Winter Visitor

MAMMALS SIGHTED DURING FIELD SURVEY

Common langur

Rhesus macaque

Blue Bull

Five-striped Palm Squirrel

Jackal

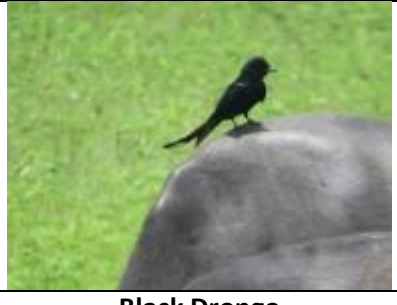
Mongoose

Some of the bird species sighted during the surveys

Little Egret

Laughing Dove

White-throated Kingfisher

		
Large-billed Crow	**Sparrow**	**Long-tailed Shrike**
		
Little Cormorant	**Red-vented Bulbul**	**Indian Robin**
		
Asian Pied Starling	**Red-wattled Lapwing**	**White-breasted Waterhen**
		
Pond Heron	**Common Myna**	**Spotted Dove**
		
Brahminy Starling	**Common Wood-pigeon**	**Indian Roller**
		
Jungle Babbler	**Black Drongo**	**Oriental Magpie-Robin**

c) Herpetofauna

The sampling for herpetofauna was carried along the bunds of the proposed reservoir area, around the periphery of the reservoir, and ponds and area along the existing and proposed water conductor system. Sampling was repeated during evening time also. Visual Encounter Survey (VES) search was followed for recording herpetofauna (amphibians and reptiles). During the surveys, 2 reptiles viz; Northern House Gecko and Garden lizard were sighted in the study area. Based on the sighting and information available in the Forest Working Plan a list of herpetofauna is given below in **Table 3.**

Table 3: List of Herpetofauna Reported from the Study Area

S. No.	Family	Scientific name	Common name	Conservation Status	
				IUCN (2022-2)	WPA, 1972
CLASS: AMPHIBIA					
	Order Anura				
1	Dicroglossidae	*Duttaphrynus stomaticus*	Marbled Toad	LC	-
2	Dicroglossidae	*Duttaphrynus melanostictus*	Common Indian Toad	LC	-
3	Dicroglossidae	*Hoplobatrachus tigerinus*	Indian Bull Frog	LC	IV
4	Dicroglossidae	*Sphaerotheca breviceps*	Indian Burrowing Frog	LC	IV
CLASS: REPTILIA					
	Order: Squamata				
5	Boidae	*Eryx johnii*	Indian sand Boa	NT	IV
6	Colubridae	*Ptyas mucosa*	Rat snake	LC	II
7	Elapidae	*Bungarus caeruleus*	Krait	LC	IV
8	Elapidae	*Naja naja*	Indian Cobra	LC	II
9	Pythonidae	*Python molurus*	Python	NT	I
10	Viperidae	*Vipera russelli*	Russell's Viper	LC	II
11	Agamidae	*Calotes versicolor*	Indian Garden Lizard	LC	-
12	Chamaeleonidae	*Chamaeleo zeylanicus*	Indian Chameleon	LC	II
13	Varanidae	*Varanus bengalensis*	Indian Monitor Lizard	NT	I
14	Gekkonidae	*Hemidactylus flaviviridis*	Northern House Gecko	LC	-

(*The list has been compiled based on description given in the Forest Working Plan of Baran Forest Division and information collected during the public consultation and about the study area*).

d) Butterflies

During the field survey, only 7 species of butterfly were recorded from the study area (**Table 4**). These butterflies belong to the families Nymphalidae, and Pieridae. These are frequently observed along the river, scrub forest, and borewells/ hand pumps near settlements.

Table 4: Butterflies recorded from Study Area

S. No.	Family	Common Name	Scientific name	Conservation Status	
				IUCN (2022-2)	WPA, 1972
1	Nymphalidae	Plain Tiger	*Danaus chrysippus*	LC	-
2	Nymphalidae	Common leopard	*Phalanta Phalantha*	LC	-
3	Nymphalidae	Blue Pansy	*Junonia orithya*	LC	-
4	Nymphalidae	Lemon Pansy	*Junonia lemonias*	-	-
5	Nymphalidae	Danaid Egg fly	*Hypolimnas misippus*	LC	II
6	Pieridae	Common Emigrant	*Catopsilia pomona*	-	-
7	Pieridae	Cabbage White	*Pieris brassicae*	LC	-

1.4.2.1 Conservation Status of Fauna

Different faunal species like mammals and birds were assessed for their conservation status according to IUCN Red List categories (Ver. 2022-2) accessed in April 2022 and WPA (1972) Schedules. Among the mammals, Common Leopard, Python and Indian Monitor Lizard are the faunal species listed as Schedule I of IWPA (1972) reported from the study area (refer to **Table 1 & 3**).

Among the bird sighted during the field survey, none of the avifaunal species is under any category of the IUCN Red List of Threatened Species version 2022-2. As per the Wildlife (Protection) Act 1972 all species are Schedule IV and Schedule V (refer to **Table 2**).

According to IUCN Red List 2022-2, *Cirrhinus cirrhosis* (Mrigal) is under the Vulnerable category and *Wallago attu* (Lanchi) is under the Near Threatened category while the rest of the species are under the Least Concern category. According to the CAMP report *Gibelion catla*, *Cirrhinus cirrhosus,* and *Heteropneustes fossilis* are under the Vulnerable category.

1.5 Protected Areas

Proposed project is located within newly declared Shahabad Conservation Reserve. Scoping Clearance for Shahpur Pumped Storage was accorded by MoEF&CC on April 2020, while the Shahabad Conservation Reserve was notified by Govt. of Rajasthan on 28th October 2021.

The other nearest Protected Areas to the project components are in Madhya Pradesh i.e. Madhav National Park and Kuno National Park having aerial distance more than 40 km from the project site. Map showing location of components with respect to Shahabad Conservation Reserve is shown in **Figure 3**. As per the WPA, 1972 (subsequent amendments) Conservation reserve do not enjoy the same level of protection status as compared to National Parks and Sanctuaries. Further, as per the MoEF & CC guidelines dated 06.05.2022, projects falling in Conservation Reserve does not attract Wildlife Clearance. However, considering the presence of Conservation Reserve, a detailed Wildlife Conservation Plan has been prepared and incorporated in the EIA/EMP report.

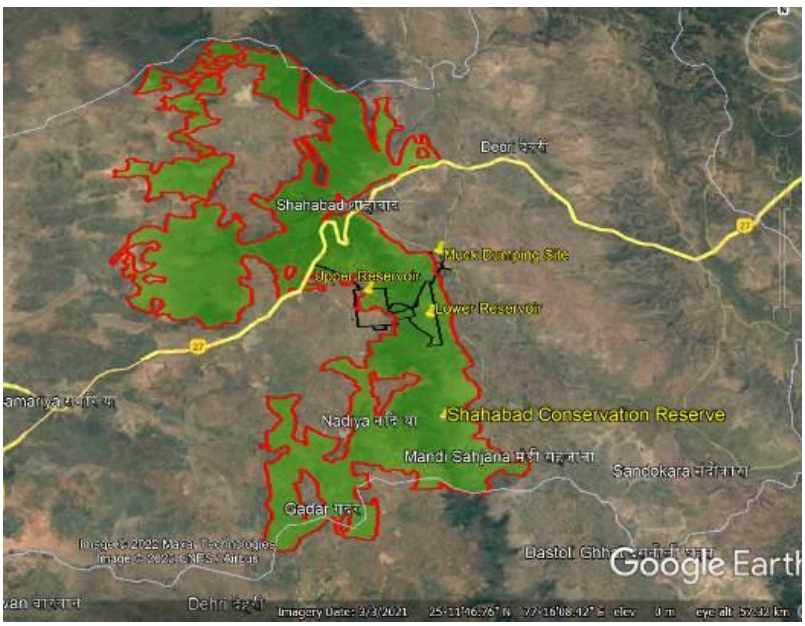


Figure 3: Map showing Shahpur PSP vis-à-vis nearest protected areas

1.6 Threats to Biodiversity & Wildlife

The fragmentation of forested landscape in the area is likely to happen due to acquisition of forest land thereby change in land use, degradation of adjoining forested landscape due to various project construction activities. Therefore, land use change and construction activities will affect biodiversity in the study area. Such activities might lead to increased disturbance to wildlife in the area, man-animal conflict, introduction of exotic weedy plant species into the adjacent forested area. Major threats to biodiversity and wildlife in the project area are as follows.

a) Diversion of Forest land for Project:

The proposed project is being constructed in the jurisdiction of Rajasthan Forest Department. For the development of Sukhpura PSP, the total land requirement has been worked out as 624.90 ha, out of which 413.90 ha is forest land lies in Shahabad Conservation Reserve. The forest land in the area is comprised of dry Deciduous and Scrub Forest. The diversion of forest land for project i.e., land use change will immediately put wildlife present in those forest patches under stress leading to landscape fragmentation. Increased access to nearby forests by construction of new roads will result in disturbance to wildlife by degradation as well as loss of habitats thereby affecting wildlife populations in the area.

A large population around 3500 persons from other areas, including technical staff, workers, and other groups of people is likely to congregate in the area during the peak project construction phase. It can be assumed that the technical staff will be of higher economic status and will live in a more urbanized habitat, and will not use wood as fuel if adequate alternate sources of fuel are provided. However, workers and other population groups residing in the area may use fuel wood, if no alternate fuel is provided. The workers may also cut trees to meet their requirements for the construction of houses, furniture. Normally in such situations, a lot of indiscriminate use or wastage of wood is also observed, especially in remote or inaccessible areas.

During the construction period, a large number of machinery and construction workers shall be mobilized, which may create disturbance to the wildlife population in the vicinity of the project area. The operation of various equipment will generate significant noise, especially during blasting which will affect the fauna of the area. The noise may scare the fauna and force them to migrate to other areas. Likewise, siting of construction plants, workshops, stores, labour camps, etc. could also lead to adverse impacts on the fauna of the area. During the construction phase, accessibility to the area will lead to an influx of workers and the people associated with the allied activities from outside will also increase. An increase in human interference could have an impact on the terrestrial ecosystem.

Thus, it is necessary to formulate a conservation and management plan to mitigate the adverse impacts on terrestrial flora during the project construction phase.

b) Operation Phase Impacts

On completion of the construction of the project, the land used for construction activities will be restored. Construction workers who have resided in that area will move to another project site**.** By ensuring all the mitigation and management measures, as planned for this

project, are implemented to minimize the impact of the construction phase, a large part of the area will return to more or less its original form. Operation phase impacts on flora and fauna will be positive due to green belt development, restoration of construction areas, restoration of the muck disposal area and implantation of biodiversity management and Wildlife Conservation Plan. An increase of greenery in the area and the creation of the reservoir will have a positive impact on wildlife habitat and avifaunal diversity.

c) Human Wildlife Conflict:

Deforestation, growing human settlements, expansion of agricultural land and fragmentation of natural habitat and grazing ground of species like Wild Boar are the causes behind rising of human wildlife conflict. In the study area human-wildlife conflict in terms of crop damage is perhaps more common and causes huge loss to the farmers.

d) Hunting and poaching:

Damage of crops by species like Monkey, Langur, Wild Boar, etc. and loss of livestock's results as hunting and killing of these wild animals by means of poisoning or with the help of hunters.

e) Illegal cutting of trees:

The stakeholders from the study area depends upon forest for their day to day need of fodder, fuelwood, and other non-Timber Forest products (NTFP) as well as timber wood needs. This results in tremendous pressure on the forests.

f) Grazing pressure:

The scrub forest in the area is under heavy grazing pressure by the livestock and is susceptible to damage by livestock.

2. BIODIVERSITY MANAGEMENT AND WILDLIFE CONSERVATION PLAN

2.1 OBJECTIVES OF MANAGEMENT

Keeping in view of the anticipated impacts as per the foregoing chapters, the management objectives can be described as:

i. Maintenance of ecological balance through preservation and restoration, wherever it has been disturbed due to project developmental activities,
ii. Conservation and preservation of natural habitats in project surrounding
iii. Mitigation and control of project induced biotic and/or abiotic pressures/ influences that may affect the natural habitats,
iv. Habitat enhancement in project area by taking up afforestation and soil conservation measures,
v. Creating all round awareness regarding conservation and ensuring people's participation in the conservation efforts and minimizing human wildlife conflict.

2.2 MITIGATION MEASURES

The following management strategies including shall be implemented by forest department in the impact area of proposed project.

i. Habitat Improvement of Schedule-I species through conservation and preservation of natural habitats in project surrounding
ii. Infra-structure development
iii. Anti-Poaching measures
iv. Training Programme for Techniques of faunal species Rescue
v. Prevention of Forest Fire
vi. Creating all round awareness regarding conservation and ensuring people's participation in the conservation efforts and minimizing human wildlife conflict.

2.3 CONSERVATION AND MANAGEMENT MEASURES

Wildlife conservation is the preservation and protection of animals, plants, and their habitats. The most effective way of biodiversity management and wildlife conservation in the area are habitat management through habitat enhancement, preservation and improvement, conducting conservation programmes and creation of environmental awareness involving local people, and strict enforcement of wildlife protection laws.

2.3.1 Wildlife Habitat Preservation & Improvement

i. Afforestation and Enrichment plantation

Afforestation and enrichment plantation will be carried out in the area. The area under forest and tree cover will be expanded through systematic planning and implementation of afforestation and rehabilitation programs in available community lands. Afforestation programme in the degraded Forest Compartments is also proposed to be carried out in the surrounding of the project area. The sites and species to be planted will be finalized by the state Forest Department as the program will be implemented by them.

The plantation site will be trench fenced and brushwood fence, for the protected from cattle grazing. With the improvement in the habitat of wildlife, the incidences of human-wildlife conflict will accordingly reduce. The estimated cost for plantation over about 50 ha area has been worked @ Rs. 1,00,000.00 per ha for Enrichment plantation. The enrichment plantation will be carried along the periphery of the proposed reservoirs in the adjoining forest area. As such, no additional forest land will be diverted for this purpose.

ii. Farm Forestry

The project area harbours several economically important plants like *Diospyros melanoxylon, Tectona grandis, Buchanania cochinchinensis, Phyllanthus emblica, Terminalia bellirica, etc*. These valuable resources will be directly useful to the people of the area which can form the basis of economic upliftment.

To reduce dependence on the natural forests for biomass and other Non-Timber Forest Products (NTFPs) or Minor Forest Products (MFPs) alternate resources need to be building up. NTFPs/MFPs plantations will be carried out on the community land, degraded land, fallow lands which help in sustainable land management and a tool for reclamation. An area of about 5 ha will be developed.

A budgetary estimate has been made @ **Rs. 75,000.00** per ha under this head.

Decentralized nurseries will be created with the help of the forest department. Species to be raised are primarily to cater to fuel, fodder, and small timber needs. Besides, seedlings of economically important plant species like Amla (*Phyllanthus emblica*), Behda (*Terminalia bellirica*)*,* Bamboo, etc., will be distributed every year to villagers at a nominal rate. The distribution will be facilitated through the Forest Range office in the area. The Forest department may take up a prior survey with the help of local administrative bodies/ panchayats to assess the requirement plants.

2.3.2 Sowing of Fodder and Grass species

To prevent seeds from getting washed away and to ensure uniform growth of grasses, seed pellets of grasses will be sown at regular intervals. Pellets are made by mixing powdered clay and farmyard manure into which grass seeds are mixed. The mixture is then made into balls and sun-dried in summer to be sown soon after de-weeding. This will also help in arresting erosion to a great extent. The estimated cost for the sowing of grasses is **Rs. 5.00 lakh**.

2.3.3 Awareness Programme

The success of any conservation plan of this magnitude is entirely hinged on the active support and wholehearted co-operation of all stakeholders with the members of the public playing a major role. For this purpose, meetings and workshops will be organized from village to village on regular basis. Functions like Van Mahotsav, Wildlife Week, World Forestry Day, and World Environment Day will be organized in a befitting manner to which village heads, members of public representatives' system at Gram Panchayat level, local leaders, and members of NGO will be involved. The topics should include deterioration of biodiversity, habitat loss, human-wildlife conflicts, fire damage control, and how best the vegetation can be revamped, etc. Members of the public will be encouraged to speak. The student community should also be sensitized to various conservation issues.

Considering that the wildlife populations will be impacted by project construction activities and due to the influx of migrant labour force, mitigation measures should also be taken for the larger area. The following measures are proposed:

- Control on hunting and poaching.
- Awareness campaigns are aimed at creating awareness towards respecting habitat protection in general and the protection of wildlife species.

General awareness of the Wildlife Protection Act and its rules would be spread among the locals through communication and extension services. The wildlife populations in this area are likely to be affected by project construction activities and also due to the influx of migrant labour force, awareness among them and contractors would be inculcated.

Under this programme, various activities viz. training, publishing of pamphlets, brochures, hoardings, etc. shall be carried out during the construction phase of the project. The following activities are planned under this programme:

Observance of Wildlife Week: The wildlife week will be celebrated every year in March to assess all the tasks set aside for wildlife management. Under this programme, seminars, art competitions, and awareness campaigns will be held.

Nature Club: Nature clubs will be introduced at the Higher Secondary and High school level in the project area. They will be imparted education using audio-visual aids to sensitize them about the importance of wildlife conservation.

Involvement of Village Panchayats and NGOs: The Panchayats of affected villages and active NGOs in the project area would be involved to disseminate the knowledge about the benefits of the proposed project and ensuring greater participation in the conservation efforts and safeguard the environment of the area.

For the implementation of an awareness programme an amount of **Rs. 1.00 lakh/year** has been budgeted.

2.3.4 Safeguards during the construction phase

During the construction phase, various adverse impacts on the wildlife are anticipated in the surrounding areas of the proposed project in terms of increased noise levels, land vibrations during underground work and blasting, the release of air and water pollutants, etc. To avoid and minimize the negative impacts of these activities, project authorities are advised to prepare strict guidelines as suggested below:

(i) Strict restrictions shall be imposed on the workers at project sites to ensure that they do not harvest any species/produce from the forests and cause any danger or harm to the animals and birds in the wild.

(ii) Minimum levels of noise during construction activities will be maintained.

(iii) The provision made for a community kitchen and ensure the supply of the free/subsidized kerosene/LPG from the depots being set up for this purpose to avoid forest degradation and destruction of forest and wildlife habitats.

(iv) The interference of the human population would be kept to a minimum in the adjacent forested areas and it would be ensured that the contractors do not set up labour colonies in the vicinity of forests and wilderness areas.

2.3.5 Strengthening of Infrastructural Facilities of Forest Department

Under this plan, the Project Authority would assist the State Forest Department in strengthening the infrastructure facilities, which are poorly developed in the area. Various activities that are necessary for the forest protection plan are described in the following paragraphs.

i) For improvement of vigilance and measures to check illegal tree falling, extraction of Minor forest products, and poaching, check posts and watchtowers will be needed. To strengthen the working capacity, the workforce of the State Forest/Wildlife Department must be provided with necessary equipment such as a camera, wireless, binoculars GPS, searchlights, health kits, etc. that would increase their capability and efficiency of monitoring.

ii) The construction of inspection paths and watchtowers for more effective and meaningful patrolling by the department.

iv) Creation of veterinary facilities and rescue camps for the healthcare of wild animals and disease control. For this purpose, it is essential to maintain a stock of medicines in addition to setting up a *mobile-rescue-cum-publicity-van*.

2.3.6 Budget

Financial provision of **Rs. 86.75 lakh** for the above side conservation measures has been made under Biodiversity Management & Wildlife Conservation Plan. The breakup of the budget is given at **Table 5** below.

Table 5: Budget for Biodiversity Management & Wildlife Conservation Plan

S. No.	Particulars	Total Amount (Rs. in lakh)
1	Afforestation and Enrichment along the periphery of the upper reservoir in the adjoining forest area (@1,00,000/ha for 50 ha)	50.0
2	Farm forestry for fuelwood and timber (@75000/ha for 5 ha)	3.75
3	Sowing of Grass (lump sum)	5.0
4	Awareness Program @ Rs. 1 lakh/year for 3 years	3.0
5	Strengthening of Infrastructural Facilities of Forest Department	15.0
6	Biodiversity Management Committee (BMC)	10.0
	Total	**86.75**

3. CONSERVATION AND MANAGEMENT OF SCHEDULE-I SPECIES

3.1 Introduction

The development activities often present a threat to biodiversity in the area like habitat destruction, degradation, fragmentation through overexploitation, poaching, hunting, pollution, etc. Therefore, developmental projects are required to maintain ecological integrity to ensure biodiversity conservation and sustainable development together. The impacts need be mitigated or minimized substantially through well drafted conservation management plan. The Indian Wildlife (Protection) Act, 1972 mandates protection of plants and animal species by way of listing them under different schedules to provide them varying degrees of protection. Schedule I and part II of Schedule II provide absolute protection and offences under these are prescribed the highest penalties. Key strategies required for any biodiversity management plan are *in situ* strategy, *ex situ* strategy, reduction of anthropogenic pressure and rehabilitation of endangered species.

3.2 Biodiversity in the Study Area

The details of biodiversity in the study area have already given in section 1.4. According to it Leopard (*Panthera pardus*) Indian Monitor lizard (*Varanus bengalensis*) and Indian Rock Python (*Python molurus molurus*) are the Schedule-I species as per Indian Wildlife (Protection) Act, 1972 reported from the study area.

3.3 Conversation Measures for Schedule-I Species

3.3.1 Leopard (*Panthera pardus*)

The Indian leopard (*Panthera pardus*) is one of the five big cats found in India, apart from Asiatic lion, Bengal tiger, Snow leopard and Clouded leopard. The Indian leopard (*Panthera pardus*) is widely distributed in the Indian subcontinent.

a. Habitat

The species has a wide geographical range. On the Indian subcontinent, topographical barriers to the dispersal of this subspecies are the Indus River in the west, and the Himalayas in the north. In the east, the lower course of the Brahmaputra and the Ganges Delta form natural barriers to the distribution of the Indochinese leopard. Indian leopards are distributed all over India, in Nepal, Bhutan, Bangladesh and parts of Pakistan. They inhabit tropical rain forests, dry deciduous forests, temperate forests and northern coniferous forests.

b. Conservation Status

The leopard is classified as Vulnerable (VU) on the IUCN Red List of Threatened Species Ver. 2020-3 (https://www.iucnredlist.org/species/15954/163991139) and species is listed as the Schedule-I under Indian Wildlife Protection Act, 1972. *Panthera pardus* is listed in CITES Appendix I.

c. Threats

i. **Habitat Threats**: Loss of natural habitat is a major threat to leopard. Habitat fragmentation, reduced prey base and conflict with livestock and game farming have reduced Leopard populations throughout most of their range (https://www.Iucnredlist.org/species/15954/163991139). Habitat degradation outside the parks, caused by overgrazing, overharvest of forest products, expansion of agricultural areas, and mining of minerals also possess threats to the habitat of species.

ii. **Human - Leopard Conflicts**: Expansion of agriculturally used land, encroachment of humans and their livestock into protected areas are main factors contributing to habitat loss and decrease of wild prey. As a result, leopards approach human settlements, where they are tempted to prey on domestic livestock like cattle's, dogs, and goats, which constitutes an important part of their diet, if they live on the periphery of human habitations. Human-leopard conflict situations ensue and have increased in recent years. In retaliation for attacks on livestock, leopards are shot, poisoned and trapped in brutal snares. Leopard-human conflict is a serious problem in India and the subcontinent and is another cause of significant mortality of Leopards. India's Forest Department is entitled to set up traps only in cases of a leopard having attacked humans.

iii. **Poaching**: A significant immediate threat to wild leopard populations is the illegal trade in poached skins and body parts. Illegal trade in Leopard body parts (skin, bones, and claws) continues to threaten the survival of the species in the wild.

d. Management and Conservation Measures

a. **Habitat improvement**: Leopards live in a variety of dry and wet forests, and also in some grasslands, where boulders and scattered shrubs and trees provide shelter. The leopard has the widest habitat tolerance than any big cat in India. Habitat of the species will be improved by planting suitable species in surrounding areas. The prey species preferred by leopard will be conserved to ensure sufficient prey availability, which will also reduce the conflict with humans. The prey species preferred by leopard

will be conserved to ensure sufficient prey availability which will also reduce the conflicts with humans.

b. Biological Fences: Conflicts generally arises when leopard enters in croplands and human settlements, which indirectly reflect the condition of adjacent forested areas, i.e. its ability to support leopard. Protective Fencing to Protect Livestock: Biological fences will be used to protect the livestock from the leopard attack.

c. Strict Protection Measures: The Wildlife (Protection) Act of 1972 provides us with the statutory framework for wildlife conservation, and Poaching is a crime against wildlife. During interview and discussion with local people it was noted that study area is not prone to poaching or any other wildlife violence related to leopard. But, precaution will be always taken while dealing with wildlife. The contact information of concern wildlife and forest department will be provided to every worker or at the field office. If any kind of poaching or other offense is noticed; it will be immediately clued-up to the concern Forest and Wildlife Officials. More importantly, worker will make aware of wildlife crime and subsequent penalties and punishment.

d. Public Awareness Programme: Involvement of local people in conservation activities will be ensured by organizing meetings and seminars from village to village on regular basis to carry the people along with implementation. Moreover, workers will be trained and educated about the importance of leopard for ecology and ultimately for humans; an internal attraction towards the species will be tried to develop.

The support of village heads and other members of gram panchayat, local leaders and members of regional NGO would be solicited to execute the proposed awareness and habitat improvement programmes. Functions like wildlife week, world forestry day, *Van Mahotsav* and world environment day will be organized. The discussion may evolve around habitat loss, human- wildlife conflicts and how best the vegetation can be revamped etc.

Moreover, a training workshop for all workers will be conducted in starting of any project. It will include the formal training on the importance of biodiversity and also to make available the information of the flora and fauna of high conservation value present in the area. Information on Wildlife policies and Government regulation and penalties will be provided to workers. Similar kind of activities will be done time to time to enhance the interest of mine workers in the conservation.

3.3.2 Indian Rock Python (Python molurus molurus)

There are two recognized subspecies of *Python molurus* which are separated by geographic range and certain physical characteristics. *Python molurus bivitatus* (the Burmese python), is typically thought to range from Myanmar eastward across southern Asia through China and Indonesia. *Python molurus molurus* (Indian rock python) is native to India, Pakistan, Sri Lanka, and Nepal. Indian rock python (*Python molurus molurus)* is the largest snake species found in tropical and sub-tropical areas of Southern Asia. Python is a solitary species. Mating is the only time that snakes are commonly found in pairs. Indian pythons will

generally move only when food is scare or when threatened.

a) Habitat

Pythons inhabit a wide range of habitats including wetlands, open forest, scrublands, harsh desert, rainforests, woodlands, grassy marshes, river valleys, rocky slopes, and savanna. They live in hollows of trees, mangrove thickets, mammal burrows and dense water reeds, in caves and unattended ruins of old buildings with clumps of vegetation around and is reluctant to move away from its established territory. It is adept at both swimming and climbing trees.

Python is carnivorous. Its diet consists of live prey like rodents and other mammals. As like other pythons, it kills prey which are mainly small mammals by the process of constriction and suffocation.

Python preys upon many types of rodents and vertebrates. It has an important and crucial role as a limiting factor for the populations of its prey species. Due to its decisive place, it is important in maintaining its ecological habitat. It helps in maintaining the exceeding populations of rodents which inflict heavy grain losses in the crops. In this way, its ecological association is extremely important for humans.

b) Conservation Status

The Rock python have been categorized under Schedule-I of the Wildlife Protection Act (1972). *Python molurus molurus* is not accessed by IUCN Redlist of Threatened species ver. 2020-3.

c) Threats

The specie is facing many potential threats like loss of habitat due to change in land use pattern for various development activities. Due to lack of awareness the highest killings were due to fear from snakes. Over hunting and illegal trade for its beautiful skin of these animals has greatly reduced their number. The use of pesticides and agrochemicals and unexpected floods are also increasing the intensity of potential treat.

d) Management and Conservation Measures

i. Implement and monitor the strong rules and regulations to stop python habitat degradation, killings and illegal trade.
ii. To create awareness in people about Indian rock python role in maintaining the natural ecosystem seminars, training workshops should be organized at the community level.
iii. The human-python conflict could be overcome through better management programs and compensation schemes for the affected community.
iv. Species and habitat management must be initiated and improved to protect the wildlife in their natural habitat. This will increase the natural prey population for python, minimizing the livestock depredation and human- python conflicts.

3.3.3 Indian Monitor Lizard (*Varanus bengalensis*)

Indian Monitor Lizard also known as Bengal monitor is found in a variety of habitats, from desert areas to floodplains, scrubland to forests, at moderate elevations

(https://www.iucnredlist.org/species/164579/5909661). It can also inhabit agricultural areas. In the wild, Bengal monitors are almost completely solitary. Much of the daytime is spent in constant movement, searching for food. Bengal monitor are more likely to interact with one another during the peak breading season. There are no noted negative impacts of *Varanus bengalensis* on humans. Bengal monitors are not large enough to attack any livestock nor do they eat any human cultivated crops.

a) Habitat

This species has a wide range across south central and Southeast Asia and it inhabits a variety of habitats. This species is found in a variety of habitats, from desert areas to floodplains, scrubland to forests, at moderate elevations. It can also inhabit agricultural areas (https://www.iucnredlist.org/species/164579/ 5909661).

The diet of Bengal monitors is almost strictly carnivorous. They consume almost anything that is smaller than themselves. They are known to scavenge carcasses of previously felled animals. Common prey includes insects, amphibians, smaller reptiles, birds, small mammals, and eggs.

b) Conservation Status

As per the Wildlife (Protection) Act, 1972 Indian Monitor Lizard (*Varanus bengalensis*) is a Schedule-I species. According to the IUCN Red List of Threatened Species ver. 2020-3, *Varanus bengalensis* is a species under 'Least Concern' category.

c) Threats

This species is possibly threatened by habitat destruction, however, as it can utilize a wide range of habitat types this is not considered a major threat at this time. This species is indirectly affected by pesticides which reduce the food resource availability in agricultural areas. However, perhaps the greatest threat to this species is hunting as it is hunted commercially for its skin. The fat of this species is also used in traditional medicine.

d) Management and Conservation Measures

i. Small earthen material lined water tanks will be created in the identifies habitat area as well as to make sure availability of drinking water.
ii. Awareness program: Gardeners and farmers would be encouraged to use natural manure such as cow dung and vermicompost (compost prepared by earthworms which convert organic waste into manure) instead of chemical fertilizers and pesticides that mostly kill insects (food of monitor lizard) which limit food supply. Insects are an important prey-item during the incubation period and for juvenile's growth.
iii. Awareness generation between farmers and local villagers about the nature and ecological importance of the species.
iv. Litter burning will be discouraged strictly. Litter burning practices destruct habitat and destroy feeding material and removes the cover and nesting materials necessary for shelter and protection from predators.

3.4 Management Measures

In view of the above, various Management and Conservation measures like Habitat

improvement, development of Biological Fences using suitable plant species, enforcement of Strict Protection Measures, Public Awareness Programme involving villagers and forest officials for protection and conservation of various species, Anti-Poaching measures, Construction and filling of water holes and check dams/Ponds, tube wells etc, Support/Provision of veterinary care, cages, rescue centers, etc., Infra-structure development (Surveillance Equipment's like Cameras, Wireless Sets, GPS etc)., Training Programme for Rescue Techniques of faunal species, Prevention of Forest Fire activities like Training and Infrastructure facilities etc., have been proposed.

3.4.1 Veterinary care

Following provision has been made for ensure the veterinary care of wildlife in the protected area.

i. Creation of veterinary facilities and rescue centres for healthcare of wild animals and for disease control. For this purpose, it is essential to maintain medical facilities in the veterinary centres.
ii. Provision of 01 mobile-rescue-cum-rehabilitation-van with financial provision of **Rs. 10.00 lakh**.
iii. For Maintenance of mobile-rescue-cum-rehabilitation-van and medical supplies provision of **Rs. 1.50 lakh/ year** for 4 years has been proposed under this plan.

3.4.2 Training to Local Youth

In addition to activities like management and conservation of habitat and provision of veterinary care for faunal species in the area, training programme for interested local youths and officials of forest department about the rescue techniques of faunal species with the help of recognized organizations, wildlife professionals and NGO's. A total budget of **Rs. 2.00 lakh** for each protected area has proposed for training programme.

3.4.3 Prevention of Forest Fire

This being a tropical forest, it is prone to fire. Forest fire is caused both naturally as well as by the human beings. Anthropogenic causes will be minimized through forming a fire line around the forest area. The following measures are therefore proposed to be taken to prevent forest fire:

i. **Fire Fighting Equipments:** These Fire watchers will also be equipped with certain Fire Fighting Equipments such as Fire resistance dress, Water bottle, Axe, Shoes etc. to attend to emergencies. Therefore, financial provision has been made for fire-fighting equipments.
ii. **Clearing of Fire Line:** Fireline will be cleared over a vulnerable area.
iii. **Training & Awareness:** Financial provision to organise firefighting training for forest officials and villagers residing around project area has been made under this Plan.

A total budget of **Rs. 2.50 lakh** per year for 4 years has been made for fire protection measures including training and awareness.

3.4.4 Construction and Maintenance of Water Holes/ Ponds in Wildlife Habitat.

For easy accessibility of drinking water for wildlife within the forest area provision of water holes/ artificial ponds has been made. Fund has been allocated for construction of new waterholes/ ponds and maintenance of existing waterholes/ ponds in the forest area. A total of **Rs. 10.00 lakh** has been allocated for waterholes. In addition to the cost of construction and maintenance, provision of **Rs. 1.0 lakh/ year for 4 years** has been made for water supply and filling of dry ponds during dry season.

3.4.5 Safeguards during construction phase

During the construction phase, various adverse impacts on the forest and wildlife are anticipated in the surrounding areas of the proposed project in terms of increased noise levels, release of air and water pollutants, etc. To avoid and minimize the negative impacts of these activities, project authorities are advised to prepare strict guidelines as suggested below:

(v) Minimum levels of noise during construction activities will be maintained and ambient noise should be monitored periodically at different locations as outlined in Environment Monitoring Program.

(vi) Strict restrictions shall be imposed on the workers at project sites to ensure that they do not harvest any species/produce from the forests and cause any danger or harm to the animals and birds in the wild.

(vii) The provision made for community kitchen and ensure the supply of the kitchen fuel from the nearest depots to avoid forest degradation and destruction of forest and wildlife habitats.

(viii) The interference of human population would be kept to a minimum in the adjacent forested areas and it would be ensured that the contractors do not set up labour colonies in the vicinity of forests and wilderness areas.

4. MONITORING AND EVALUATION

The monitoring and evaluation of Biodiversity Conservation and Wildlife Management Plan including Conservation Plan for Schedule-I species will be carried out by a Biodiversity Management Committee (BMC). The committee will follow the guidelines of National Biodiversity Authority, State Biodiversity Conservation Strategy Action Plans (SBCSAP) and State Forest Department to implement, monitor and evaluate the Biodiversity Conservation and Wildlife Management Plan of the proposed Project. The activities of BMC shall be under the direct administrative control of the Chief Wildlife Warden/Principal Chief Conservator of Forests, Rajasthan. The BMC will comprise of the following members:

Chief Wildlife Warden/Principal Chief Conservator of Forests, Rajasthan	Chairman
Manager (Environment) Greenko Energies Pvt. Ltd.	Member Secretary
Divisional Forest Officer of the concerned Division	Member
Experts form State University and Active NGO's	Member
Local Body's Representatives from the villages	Member

5. LOCATIONS OF PROPOSED INTERVENTION

Proposed intervention shall be implemented by State Forest department. Hence the selection of site for implementation of proposed measures will be finalized by State

Forest department.

6. BUDGETARY PROVISIONS

The total budget allocated focusing on Conservation plan for Schedule -I species is **Rs 50.00 lakh**. The Break-up of the budget is given in **Table 6**.

Table 6: Break-up for Wildlife Management and Conservation Plan for Schedule I Species

S. No.	Activity	Fund Allocated (Rs in Lakh)
1	Habitat Improvement by development of vegetation cover by plantation with suitable species.	0.0*
2	Biological fence (Bamboo species, *Euphorbia* sp., *Agave americana*, etc.) around the habitation and around the agriculture fields adjoining to forest area to control human wildlife conflict	10.00
3	Support/Provision of veterinary care, cages, recuse centers, etc.	16.00
	Prevention of Forest Fire: Training and Infrastructure facilities	10.00
4	Construction and filling of water holes and ponds in wildlife habitat.	14.00
5	Infra-structure development (Surveillance Equipment's like Cameras, Wireless Sets, GPS, etc.).	0.0*
	Total	**50.00**

*S.NO 1 & 5 items *Covered under Biodiversity Management & Wildlife Conservation Plan (refer table 6)*

No. J-12011/02/2020-IA-I
Government of India
Ministry of Environment, Forest & Climate Change
(IA.I Division)

Indira Paryavaran Bhawan
3rd Floor, Vayu Wing
Jor Bagh Road
New Delhi-110 003

Dated: 13th April, 2020

To

M/s Greenko Energies Private Limited
Plot No. 1071, Road No. 44
Jubilee Hills, Hyderabad-500033
Telangana

Sub: Shahpur Pumped Storage Project (**2520 MW**) in District Baran, Rajasthan by M/s Greenko Energies Private Limited- reg. Terms of Reference (ToR).

Sir,

This has reference to online proposal No. IA/RJ/RIV/142374/2020 and letter no SHAHPUR/SPSP/MoEF&CC /ToR/ 20200210 Dated 10.02.2020 submitted to the Ministry for ToR to the project cited in the subject.

2. The above referred proposal was considered by the Expert Appraisal Committee (EAC) for River Valley & Hydroelectric projects in its 31st meeting held on 05.03.2020. The comments and observations of EAC on the project may be seen in the Minutes of the meeting which are available on the web-site of this Ministry.

3. Above proposal is for to develop Pumped Storage Project (PSP) in Shahpur (Village), Shahabad (Tehsil) of Baran (District) in the State of Rajasthan. Total capacity of the proposed PSP is 2520 MW (17640 MWH, based on 7-hour operation per day). Project involves creation of new upper reservoir and lower reservoirs consisting of rock fill embankment with central clay core. The geographical coordinates of the proposed upper reservoir are at Latitude 25°11'25.21"North and Longitude is 77°10'55.78" East and that of lower reservoir are at 25°11'40.00" North and 77°11'50.00" East.

4. The upper reservoir is proposed to be located on flat / gradually sloping land which is suitable for creating the desired gross storage capacity of 1.70 TMC. Out of 1.70 TMC, the live storage capacity is 1.63 TMC and the dead storage capacity is 0.075 TMC by keeping FRL & MDDL at EL 512.00m & EL 489.00m, respectively. For creating this storage, it is proposed to construct rockfill embankment for the average height of around 28 m (with maximum height of 30m) for the length of 6985m. Similarly, the lower reservoir is proposed to be located in the

flat / gradually sloping portion which is suitable for creating the desired gross storage capacity of 1.71 TMC in which the live storage capacity is 1.64 TMC and dead storage capacity is 0.07 TMC by keeping FRL and MDDL at EL 354.00m & EL 323.00m, respectively. For creating this storage, it is proposed to construct rockfill embankment for the average height of 34m (with maximum height of 42m) for the length of 3842 m.

5. Water conductor system consist of 52.20m high Power Intake Structure; 8 nos. each of 909 m long and 7.5m dia. surface circular steel lined Penstock / Pressure Shaft (i.e. consisting of 711 m long surface penstock, 121 m long vertical pressure shaft and 77 m long Horizontal pressure shaft) to feed 8 units of 315 MW; A surface Powerhouse having an installation of eight nos. reversible Francis turbine each of 315 MW capacity (6 units of fixed speed and 2 units of variable speed turbines) operating under a rated head of 157.00m in generating mode and 168.00m in pumping mode. 8 nos. 8.5 m diameter,190m long Tailrace Tunnel. 125 m wide and FSD of 5.5m is the Tail race channel of 953 m long joining with the proposed lower reservoir. As such, the proposed project will generate 2520 MW by utilizing design discharge of 1817.98 Cumec with rated head of 157.00 m. Upper and lower reservoir (both are to be constructed newly) and one-time water will be pumped from existing nearby Shahabad Kuno river to the proposed Shahpur Standalone PSP lower reservoir which is about 150 m away from the toe of the embankment of lower reservoir

6. Total land required for construction of various components, including infrastructure facilities and muck disposal area is estimated to be around 777.44 ha, involving 543.52 ha of forest land and 233.92 ha of non-forest land. An estimated cost of the project is Rs. 11736.73 Crores. As per the Form 1 there is no Protected Area notified under the Wild Life (P) Act, 1972; Critically Polluted areas as identified by the CPCB constituted under the Water (P) Act 1974; Eco Sensitive Areas as notified within 10 km of the project boundary.

7. The above proposal was appraised by the EAC in the 31st meeting held on 05.03.2020. EAC in the 31st meeting held on 05.03.2020 deliberated on the information submitted (Form 1, PFR, kml file, etc.) and as presented in the meeting and observed that in the instant project upper is located away from all existing natural water systems and have no/negligible catchment area therefore CAT Plan, RIM treatment, L-section of river and Environmental flow study for the upper and lower reservoir will not be required under EMP.

8. Based on recommendations of the EAC, the Ministry of Environment, Forest & Climate Change hereby **accords a fresh Terms of Reference (TOR)** as per the Standard ToR (Hydro projects) for the proposed activity as per the provisions of the Environmental Impact Assessment Notification, 2006 and as amended time to time along with the following additional ToR for preparation of EIA/EMP report:

<u>Standard ToR</u>

The EIA/EMP report should contain the information in accordance with provisions & stipulations as given in the **Standard ToR for hydro projects (***Please visit the following link to download the Standard ToR:*

http://environmentclearance.nic.in/writereaddata/standardtorreference.pdf.

Additional ToR

i. Land acquired for the project shall be suitably compensated in accordance with the law of the land with the prevailing guidelines. Private land shall be acquired as per provisions of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.

ii. The project involves diversion of about **543.52 ha** of forestland. Forest clearance shall be obtained as per the prevailing norms of Forest (Conservation) Act, 1980.

iii. Application to obtain prior approval of Central Government under the Forest (Conservation) Act, 1980 for diversion of forest land required should be submitted as soon as the actual extent of forest land required for the project is known, and in any case, within six months of issuance of this letter.

iv. Funds allocation for Corporate Environment Responsibility (CER) shall be made as per O.M. No. 22-65/2017-IA.III dated 01.05.2018 for various activities therein.

v. The details of funds allocation and activities for CER shall be incorporated in EIA/EMP report.

vi. The EIA report should clearly mention activity wise EMP and CER cost details and should earmarked clear break-up of the capital and recurring cost along with the timeline for incurring the capital cost.

vii. Consolidated EIA/EMP report is to be submitted as per the generic structure (Appendix III & IIIA) given in the EIA Notification, 2006.

viii. Conservation plan for the Scheduled I species, if any, in the project study area shall be prepared and submitted to the Competent Authority for approval.

ix. Pre-DPR Chapters viz., Hydrology and Layout Map and Power Potential Studies duly approved by CWC/CEA shall be submitted.

x. Dam break analysis, Disaster Management Plan and Fisheries Management Plan be prepared and submitted in the EIA/EMP report.

xi. Environmental matrix during construction and operational phase needs to be submitted.

xii. Both capital and recurring expenditure under EMP shall be submitted.

xiii. Impact of developmental activity/project on the wildlife habitat, if any, within 10 km of the project boundary shall be studied.

xiv. The consultant engaged for preparation of EIA/EMP report has to be registered with Quality Council of India (QCI/ NABET) under the scheme of Accreditation & Registration of MoEF& CC. This is a pre-requisite.

xv. Consultant shall include a "Certificate" in EIA/EMP report regarding portion of EIA/EMP prepared by them and data provided by other organization(s)/ laboratories including status of approval of such laboratories. Declaration by the Consultant that information submitted in the EIA/EMP is factually correct and shall be submitted along with EIA/EMP reports.

xvi. An undertaking as part of the EIA report from Project proponent, owning the contents (information and data) of the EIA report with the declaration about the contents of the EIA report pertaining to a project have not been copied from other EIA reports.

xvii. The draft EIA/EMP report prepared as per the Generic Structure (Appendix III of EIA Notification, 2006) incorporating information as per the Standard ToR, should be submitted to the State Pollution Control Board concerned for conducting Public Consultation, district wise, as per the provisions stipulated in EIA Notification, 2006. Public Hearing, which is a part of Public Consultation, shall be held district wise at the site or in its close proximity as prescribed in Appendix (IV) of EIA Notification, 2006. The draft EIA/EMP report is to be submitted to SPCB sufficient before the expiry of the ToR validity so that necessary amendments in EIA/EMP can be undertaken based on public hearing and the same is to be submitted to MoEF&CC before expiry of validity.

xviii. All the tasks including conducting public hearing shall be done as per the provisions of EIA Notification, 2006 and as amended from time to time. Public hearing issues raised and compliance of the same shall be incorporated in the EIA/EMP report in the relevant chapter. Final EIA/EMP report should be submitted to the Ministry for Environmental Clearance only after incorporating these issues, before the expiry of validity of ToR.

xix. As per Ministry's Notification 17.02.2020, the ToR will remain valid for a period of 5 years from the date of issue of this letter for submission of EIA/EMP report along with public consultation. The ToR will stand lapsed after completion of 5 years in case final EIA/EMP is not submitted.

xx. Baseline data and public consultation shall not be older than 3 years, at the time of submission of the proposal, for grant of Environmental Clearance.

xxi. In case of any change in the scope of the project such as capacity enhancement, change in submergence, etc., fresh scoping clearance has to be obtained.

xxii. The PP should submit a copy of TEC of the DPR along with EIA/EMP report.

xxiii. Details of the name and number of posts to be engaged by the project proponent for implementation and monitoring of environmental parameters be specified in the EIA report.

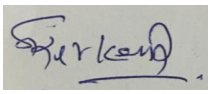
xxiv. The EIA/ EMP report must contain an Index showing details of compliance of all ToR conditions. The Index will comprise of page No. etc., vide which compliance of a specific ToR is available. It may be noted that without this index, EIA/ EMP report will not be accepted.

xxv. The PP should complete all the tasks as per the provisions of EIA Notification, 2006 and as amended time to time) and submit the application for final clearance within the stipulated time.

xxvi. Appropriate Biodiversity Conservation and Management plan for the Native, Rare & Endangered floral and faunal species getting affected due to the project shall be prepared.

This has approval of the Competent Authority.

Yours faithfully,

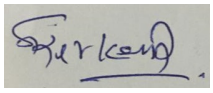


(Dr. S. Kerketta)
Director

Telefax: 011-24695314

Copy to:

1. The Secretary, Ministry of Water Resources, RD & GR, Sharm Shakti Bhawan, Rafi Marg, New Delhi-3.
1. The Secretary, Ministry of Power, Sharm Shakti Bhawan, Rafi Marg, New Delhi-110001.
2. The Pr. Secretary to Government Energy Department, Govt. of Rajasthan, Room No. 8340, SSO Building, Government Secretariat, Jaipur, Rajasthan
3. The Principal Chief Conservator of Forests, (HOFF), Rajasthan, Aranya Bhawan, Jhalana Institutional Area, Jaipur-302004, Rajasthan.
4. The Member Secretary, Rajasthan State Pollution Control Board, 4, Jhalana Institutioal Area, Jhalana Doongri, Jaipur, Rajastan-302004
5. The Chief Engineer, Project Appraisal Directorate, Central Water Commission, Sewa Bhawan R.K. Puram, New Delhi-110066.
6. The Deputy Director General of Forests (C), Regional Office (CZ), Ministry of Environment, Forest & Climate Change, Kendriya Bhawan, 5thFloor, Sector "H", Aliganj, Lucknow — 226020
7. Sr. PPS to JS(GM)
8. NIC Cell of MoEF&CC with a request to upload on MoEF&CC Website.
9. Guard File.



(**Director**)

ANNEXURE-3

Full title of the Project	:	Construction of Shahpur (1800 MW) Pumped Storage Project by M/s Greenko Energies Private Limited, in Hanumanthkhera, Mungawali villages, G.P- Subhdhara; Baint Village, G.P-Bichi; Sahjanpur Villages, G.P-Kasba Nonera; Kaloni, Shahpur Villages, G.P- Mundiyar; Tehsil-Shahbad; Baran District, Rajasthan.
Proposal No	:	**FP/RJ/HYD/121439/2021**
Date of Proposal	:	03-02-2021
Diversion Area	:	407.8227 Ha

RELEVANT EXTRACTS OF EIA/EMP REPORT

10.4 BIODIVERSITY MANAGEMENT AND WILDLIFE CONSERVATION PLAN

The purpose of biodiversity management and wildlife conservation plan development projects is to conserve and preserve the existing biodiversity in and around the proposed project area. Newly declared Shahbad Conservation Reserve is located in the proposed project area. The project related activities like road construction, the construction of dam, increased traffic, influx of labour, etc. are the general threat to biodiversity and wildlife in the area. Therefore, the effective and efficient mechanisms for conserving biodiversity is to prevent further degradation or destruction of habitats. The strategies adopted for biodiversity conservation and management are in situ conservation, ex-situ conservation, reduction of anthropogenic pressure, and protection of the species at risk.

10.4.1 Biodiversity Profile of the Project Area

The baseline studies undertaken for assessing terrestrial biodiversity composition (which includes forest, mammals, and birds) of the Direct Impact Area as well as the Indirect Impact Area of Shahpur PSP show that forest in the area is mainly comprised of Northern mixed dry deciduous and scrub vegetation. Tectona grandis and Diospyros melanoxylon are the dominant tree species in the forest area. Around the project area, Anogeissus pendula, Diospyros melanoxylon, Terminalia tomentosa, Terminalia bellirica, Lannea coromandelica, Butea monosperma, Phyllanthus emblica, are the commonly observed tree species. Acacia nilotica, Butea monosperma, Bauhinia racemosa, Boswellia serrata, Cassia fistula, and Ziziphus jujuba represents the vegetation of scrub forest in the study area. Overall forest in the area is in degraded condition except for patches away from habitation and human interference. In general, the project area does not harbor species of particular specific conservation interest.

According to IUCN Red List Ver. 2020-3, plant species recorded from the study area either fall under Least Concern (LC) category or have not been assessed and listed as Not

Evaluated (NE).

Among the mammals, no Schedule I species was sighted in the study area. According to WPA (1972), five species of mammals are Schedule-II, and two species are Schedule III, and four species are listed under Schedule-IV. The avifaunal species recorded from the area are Listed under the Least Concern category of the IUCN Red List of Threatened Species version 2020.3. As per WPA (1972) all species are listed under Schedule IV and Schedule V.

10.4.2 Threats to Biodiversity & Wildlife

The fragmentation of forested landscape in the area is happening due to degradation activities encroachment into forest lands for agriculture, like clear-felling for timber, mananimal conflict, the introduction of exotic species, and uncoordinated infrastructural development. Overexploitation of forest resources, population explosion, urbanization, unscientific management, the encroachment of forest land, illicit felling, lack of regeneration of forests, lack of coordination with stakeholders, and outdated laws are major factors responsible for the degradation and depletion of forests in the area. Deforestation may lead to increase soil erosion, loss of fertile soil, silting of rivers, reduction of rainfall, dryness in the air, and increase in temperature, adversely affecting not only forestry but also agriculture and horticulture, etc. Therefore, major threats to biodiversity and wildlife in the project area are as follows:

a) Encroachment of Forest land for Agriculture:

Agriculture is the main occupation in the study area. Conversion of forestland into agriculture is quite common in the area due to the increased population pressure. Most of the gently sloping lands and flatlands on the edges of the forest area have been converted into agricultural fields. Encroachment in forest areas is the main cause of depletion of forest cover and also leads to wildlife habitat destruction. This results in habitat loss, degradation, and fragmentation are important causes of known species-populations extinctions. Grass cutting which is carried out by villagers for cattle fodder from the forest prevents regeneration of the forest and inhibits the natural undergrowth of shrubs and herbs.

b) Human-Wildlife Conflict: Deforestation, growing human settlements, expansion of agricultural land, and fragmentation of natural habitat and grazing ground of species like Common Langur, Rhesus macaque, Common Hare, Jackal, Blue bull, and Wild Boar are the causes behind the increase in human-wildlife conflict. In the study area, human-wildlife conflict in terms of crop damage looked more common and causing losses to the farmers.

c) Hunting and poaching: Damage of crops by species like Common Langur, Rhesus macaque, Common Hare, Blue bull, and Wild Boar results in hunting and killing of these wild animals.

d) Illegal cutting of trees: The stakeholders, from the study area depend upon forest for their day to day need of fodder, fuelwood, and other Non-Timber Forest products (NTFP) as well as timber wood needs. This results in tremendous pressure on the forests.

e) Grazing pressure: The forest area is also under grazing pressure by the livestock and

is susceptible to damage by livestock. It is common practice in the area. The grazing has affected the vegetation not only by preventing the accumulation of some grasses but also stimulating the regeneration of species and checks the recruitment of seedlings which are damaged by trampling by cattle.

10.4.3 Biodiversity Conservation & Wildlife Management Plan

The most effective ways of biodiversity conservation in the area is creating awareness among the stakeholders, joint forest management, and natural resource management by involving local peoples.

Wildlife management consists of habitat evaluation and assessment, periodic monitoring of vegetation cover and animal population status, identification of habitat factors favorable to growth & regeneration, and the factors which act against the population. Welfare factors are promoted, adverse factors are arrested, and limiting factors are mitigated so that habitat carrying capacity is optimized and populations attain the equilibrium point intrinsic to the species. Participation and support of the local public are enlisted to make the conservation plan work and the outcome becomes sustainable.

Because of the anticipated impacts, a biodiversity conservation and management plan has 7 been proposed. The main objectives of the plan are as follows:

i. Maintenance of ecological balance through preservation and restoration, wherever it has been disturbed due to project developmental activities,
ii. Conservation and preservation of natural habitats in project surrounding
iii. Mitigation and control of project induced biotic and/or abiotic pressures/ influences that may affect the natural habitats,
iv. Habitat enhancement in the project area by taking up afforestation and soil conservation measures,
v. Creating all-around awareness regarding conservation and ensuring people's participation in conservation efforts and minimizing human-wildlife conflict.

10.4.4 Management Measures

10.4.4.1 Wildlife Habitat Preservation & Improvement

i. Afforestation and Enrichment plantation Afforestation and enrichment plantation will be carried out in the area. The area under forest and tree cover will be expanded through systematic planning and implementation of afforestation and rehabilitation programs in available community lands. Afforestation programme in the degraded Forest Compartments is also proposed to be carried out in the surrounding of the project area. The sites and species to be planted will be finalized by the state Forest Department as the program will be implemented by them.

The plantation site will be trench fenced and brushwood fence, for the protected from cattle grazing. With the improvement in the habitat of wildlife, the incidences of human-wildlife conflict will accordingly reduce. The estimated cost for plantation over about 50 ha area has been worked @ Rs. 1,00,000.00 per ha for Enrichment plantation. The enrichment plantation will be carried along the periphery of the proposed reservoirs in the

adjoining forest area. As such, no additional forest land will be diverted for this purpose.

ii. Farm Forestry The project area harbours several economically important plants like Diospyros melanoxylon, Tectona grandis, Buchanania cochinchinensis, Phyllanthus emblica, Terminalia bellirica, etc. These valuable resources will be directly useful to the people of the area which can form the basis of economic upliftment.

To reduce dependence on the natural forests for biomass and other Non-Timber Forest Products (NTFPs) or Minor Forest Products (MFPs) alternate resources need to be building up. NTFPs/MFPs plantations will be carried out on the community land, degraded land, fallow lands which help in sustainable land management and a tool for reclamation. An area of about 5 ha will be developed.

A budgetary estimate has been made @ Rs. 75,000.00 per ha under this head.

Decentralized nurseries will be created with the help of the forest department. Species to be raised are primarily to cater to fuel, fodder, and small timber needs. Besides, seedlings of economically important plant species like Amla (Phyllanthus emblica), Behda (Terminalia bellirica), Bamboo, etc., will be distributed every year to villagers at a nominal rate distribution will be facilitated through the Forest Range office in the area. The Forest department may take up a prior survey with the help of local administrative bodies/ panchayats to assess the requirement plants.

10.4.4.2 Sowing of Fodder and Grass species

To prevent seeds from getting washed away and to ensure uniform growth of grasses, seed pellets of grasses will be sown at regular intervals. Pellets are made by mixing powdered clay and farmyard manure into which grass seeds are mixed. The mixture is then made into balls and sun-dried in summer to be sown soon after de-weeding. This will also help in arresting erosion to a great extent. The estimated cost for the sowing of grasses is Rs. 5.00 lakh.

10.4.4.3 Awareness Programme

The success of any conservation plan of this magnitude is entirely hinged on the active support and wholehearted co-operation of all stakeholders with the members of the public playing a major role. For this purpose, meetings and workshops will be organized from village to village on regular basis. Functions like Van Mahotsav, Wildlife Week, World Forestry Day, and World Environment Day will be organized in a befitting manner to which village heads, members of public representatives' system at Gram Panchayat level, local leaders, and members of NGO will be involved. The topics should include deterioration of biodiversity, habitat loss, humanwildlife conflicts, fire damage control, and how best the vegetation can be revamped, etc. Members of the public will be encouraged to speak. The student community should also be sensitized to various conservation issues.

Considering that the wildlife populations will be impacted by project construction activities and due to the influx of migrant labour force, mitigation measures should also be taken for the larger area. The following measures are proposed:

- Control on hunting and poaching.

- Awareness campaigns are aimed at creating awareness towards respecting habitat protection in general and the protection of wildlife species.

General awareness of the Wildlife Protection Act and its rules would be spread among the locals through communication and extension services. The wildlife populations in this area are likely to be affected by project construction activities and also due to the influx of migrant labour force, awareness among them and contractors would be inculcated.

Under this programme, various activities viz. training, publishing of pamphlets, brochures, hoardings, etc. shall be carried out during the construction phase of the project. The following activities are planned under this programme:

Observance of Wildlife Week: The wildlife week will be celebrated every year in March to assess all the tasks set aside for wildlife management. Under this programme, seminars, art competitions, and awareness campaigns will be held.

Nature Club: Nature clubs will be introduced at the Higher Secondary and High school level in the project area. They will be imparted education using audio-visual aids to sensitize them about the importance of wildlife conservation.

Involvement of Village Panchayats and NGOs: The Panchayats of affected villages and active NGOs in the project area would be involved to disseminate the knowledge about the benefits of the proposed project and ensuring greater participation in the conservation efforts and safeguard the environment of the area.
For the implementation of an awareness programme an amount of Rs. 1.00 lakh/year has been budgeted.

10.4.4.4 Safeguards during the construction phase

During the construction phase, various adverse impacts on the wildlife are anticipated in the surrounding areas of the proposed project in terms of increased noise levels, land vibrations during underground work and blasting, the release of air and water pollutants, etc. To avoid and minimize the negative impacts of these activities, project authorities are advised to prepare strict guidelines as suggested below:

(i) Strict restrictions shall be imposed on the workers at project sites to ensure that they do not harvest any species/produce from the forests and cause any danger or harm to the animals and birds in the wild.
(ii) Minimum levels of noise during construction activities will be maintained.
(iii) The provision made for a community kitchen and ensure the supply of the free/subsidized kerosene/LPG from the depots being set up for this purpose to avoid forest degradation and destruction of forest and wildlife habitats.
(iv) The interference of the human population would be kept to a minimum in the adjacent forested areas and it would be ensured that the contractors do not set up labour colonies in the vicinity of forests and wilderness areas.

10.4.4.5 Strengthening of Infrastructural Facilities of Forest Department

Under this plan, the Project Authority would assist the State Forest Department in strengthening the infrastructure facilities, which are poorly developed in the area. Various activities that are necessary for the forest protection plan are described in the following

paragraphs.

i) For improvement of vigilance and measures to check illegal tree falling, extraction of Minor forest products, and poaching, check posts and watchtowers will be needed. To strengthen the working capacity, the workforce of the State Forest/Wildlife Department must be provided with necessary equipment such as a camera, wireless, binoculars GPS, searchlights, health kits, etc. that would increase their capability and efficiency of monitoring.

ii) The construction of inspection paths and watchtowers for more effective and meaningful patrolling by the department.

iii) Creation of veterinary facilities and rescue camps for the healthcare of wild animals and disease control. For this purpose, it is essential to maintain a stock of medicines in addition to setting up a mobile-rescue-cum-publicity-van.

Project authorities would provide funds to the State Forest Department. Total financial outlay under this head would be Rs. 15.00 lakh.

10.4.5 Biodiversity Management Committee (BMC)

The monitoring and evaluation of the Biodiversity Conservation and Wildlife Management Plan of Shahpur Pumped Storage Project will be carried out by a Biodiversity Management Committee (BMC). The committee will follow the guidelines of the National Biodiversity Authority, State Biodiversity Conservation Strategy Action Plans (SBCSAP), and State Forest Department to implement, monitor, and evaluate the Biodiversity Conservation and Wildlife Management Plan of the proposed Project. The activities of BMC shall be under the direct administrative control of the Chief Wildlife Warden/Principal Chief Conservator of Forests, Rajasthan. The BMC will comprise of the following members:

Chief Wildlife Warden/Principal Chief Conservator of Forests, Rajasthan	Chairman
Manager (Environment) Greenko Energies Pvt. Ltd.	Member Secretary
Divisional Forest Officer of the concerned Division	Member
Experts from State University and Active NGO's	Member
Local Body's Representatives from the villages	Member

The Chairman of the committee will have the right to assign various activities to various members for proper functioning and result-oriented tasks. The committee will monitor the progress of the proposed plan. The total financial outlay for the BMC would be Rs. 10.00 lakh only.

10.4.6 Wildlife Conservation Plan

Keeping in view of the anticipated impacts of proposed project on the biodiversity of area and the human-wildlife conflict because of habitat loss of wild animals due to fragmentation of forest and loss of agriculture crops by wild animals, and presence of Schedule-I species reported from the Shahabad Conservation Reserve, a Conservation Plan for Schedule-I species has been prepared (Annexure-VI). A financial provision of Rs. 50.00 lakh has been earmarked for this activity.

10.4.7 Budget

The total budget for the Biodiversity Management & Wildlife Conservation Plan would be Rs. 136.75 lakh. The breakup of the budget is given in Table 10.5 below.

Table 10.5: Budget for Implementation Biodiversity Conservation Plan

S. No.	Particulars	Total Amount (Rs. in lakh)
1	Afforestation and Enrichment along the periphery of the upper reservoir in the adjoining forest area (@1,00,000/ha for 50 ha)	50
2	Farm forestry for fuelwood and timber (@75000/ha for 5 ha)	3.75
3	Sowing of Grass (lump sum	5
4	Awareness Program @ Rs. 1 lakh/year for 3 years	3
5	Strengthening of Infrastructural Facilities of Forest Department	15
6	Biodiversity Management Committee (BMC	10
7	Wildlife Conservation Plan	50
	Total	**136.75**

Date: 24.06.2023

Name: Gopi Krushna N

Gopi Krushna N
Deputy General Manager (DGM)
Authorised Signatory
Greenko Energies Private Limited

Place: Hyderabad

Authorized Signatory

ANNEXURE-4

Full title of the Project	:	Construction of Shahpur (1800 MW) Pumped Storage Project by M/s Greenko Energies Private Limited, in Hanumanthkhera, Mungawali villages, G.P-Subhdhara; Baint Village, G.P-Bichi; Sahjanpur Villages, G.P-Kasba Nonera; Kaloni, Shahpur Villages, G.P-Mundiyar; Tehsil-Shahbad; Baran District, Rajasthan.
Proposal no	:	FP/RJ/HYD/121439/2021
Date of Proposal	:	03-02-2021
Diversion Area	:	407.8227 Ha

UNDERTAKING FOR IMPLEMENATION OF WILDIFE CONSERVATION PLAN

M/s Greenko Energies Private Limited hereby affirm and undertake to implement the Wildlife Conservation Plan as approved by the State Govt.

Date: 24.06.2023

Name: Gopi Krushna N

Gopi Krushna N
Deputy General Manager (DGM)
Authorised Signatory
Greenko Energies Private Limited

Place: Hyderabad

Authorized Signatory

ANNEXURE-5

Full title of the Project	:	Construction of Shahpur (1800 MW) Pumped Storage Project by M/s Greenko Energies Private Limited, in Hanumanthkhera, Mungawali villages, G.P-Subhdhara; Baint Village, G.P-Bichi; Sahjanpur Villages, G.P-Kasba Nonera; Kaloni, Shahpur Villages, G.P-Mundiyar; Tehsil-Shahbad; Baran District, Rajasthan.
Proposal no	:	**FP/RJ/HYD/121439/2021**
Date of Proposal	:	03-02-2021
Diversion Area	:	407.8227 Ha

UNDERTAKING TO CARRYOUT TOTAL TREE ENUMERATION

M/s Greenko Energies Private Limited hereby affirm and undertake to carry out total tree enumeration after Stage I approval.

Date: 24.06.2023

Name: Gopi Krushna N

Gopi Krushna N
Deputy General Manager (DGM)
Authorised Signatory
Greenko Energies Private Limited

Place: Hyderabad

Authorized Signatory

ANNEXURE-6

Full title of the Project	:	Construction of Shahpur (1800 MW) Pumped Storage Project by M/s Greenko Energies Private Limited, in Hanumanthkhera, Mungawali villages, G.P-Subhdhara; Baint Village, G.P-Bichi; Sahjanpur Villages, G.P-Kasba Nonera; Kaloni, Shahpur Villages, G.P-Mundiyar; Tehsil-Shahbad; Baran District, Rajasthan.
Proposal no	:	**FP/RJ/HYD/121439/2021**
Date of Proposal	:	03-02-2021
Diversion Area	:	407.8227 Ha

CERTIFICATE FOR TREE CUTTING & TRANSPORTATION COST

M/s Greenko Energies Private Limited hereby affirm and undertake felling of trees at the expense of the user agency and transport to the departmental depot.

Date: 24.06.2023

Name: Gopi Krushna N

N. Gopi Krushna

Gopi Krushna N
Deputy General Manager (DGM)
Authorised Signatory
Greenko Energies Private Limited

Place: Hyderabad

Authorized Signatory

रजिस्ट्री सं० डी० एल०-33004/99 REGD. NO. D. L.-33004/99

भारत का राजपत्र
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(विधायी विभाग)

अधिसूचना

नई दिल्ली, 19 मई, 2018

सा.का.नि. 466(अ).— राष्ट्रपति द्वारा किया गया निम्नलिखित आदेश सर्वसाधारण की जानकारी के लिए प्रकाशित किया जाता है :—

"सं.आ.270"

अनुसूचित क्षेत्र (राजस्थान राज्य) आदेश, 2018

राष्ट्रपति, भारत के संविधान की पांचवीं अनुसूची के पैरा 6 के उप-पैरा (2) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, अनुसूचित क्षेत्र (राजस्थान राज्य) आदेश, 1981 को विखंडित करते हैं और उस राज्य के राज्यपाल से परामर्श करके निम्नलिखित आदेश करते हैं, अर्थात् :—

1. (1) इस आदेश का संक्षिप्त नाम अनुसूचित क्षेत्र (राजस्थान राज्य) आदेश, 2018 है।

(2) यह तुरन्त प्रवृत्त होगा ।

2. नीचे विनिर्दिष्ट क्षेत्रों को राजस्थान राज्य के अन्दर अनुसूचित क्षेत्रों के रूप में पुनः परिनिश्चित किया जाता है :—

(1) बांसवाड़ा जिला

(2) डूंगरपुर जिला

(3) प्रतापगढ़ जिला

(4) उदयपुर जिले में निम्नलिखित क्षेत्र :

(क) कोटड़ा, झाडोल (तत्कालीन फलासिया), लसाडिया, सलूम्बर, सराड़ा, खेरवाड़ा, ऋषभदेव तथा गोगून्दा तहसील ।

(ख) गिर्वा तहसील में निम्नलिखित क्षेत्र :

(i) गिर्वा ब्लॉक

(ii) निम्नानुसार उल्लिखित बड़गांव ब्लॉक की ग्राम पंचायतों के निम्नलिखित ग्राम :

(I) मदार ग्राम पंचायत के मदार, ब्राह्मणों की हुन्दर, राठोडों का गुढ़ा, बान्दरवाड़ा, घोडान कलां, घोडान खुर्द और कायलों का गुढ़ा ग्राम,

(II) कैलाशपुरी ग्राम पंचायत के कैलाशपुरी, राया, करावाडी, मठाठा, नागदा, झालों का गुढ़ा तथा मुणवास ग्राम,

(III) चीरवा ग्राम पंचायत के चीरवा, मोहनपुरा, शिवपुरी, करेलों का गुढ़ा तथा सारे ग्राम,

(IV) अम्बेरी ग्राम पंचायत के अम्बेरी, भीलों का बेदला, ओटो का गुढ़ा तथा प्रतापपुरा ग्राम,

(V) ढीकली ग्राम पंचायत के ढीकली तथा बड़ा ग्राम,

(VI) कविता ग्राम पंचायत के कविता, बरोडिया, घसियार तथा डांगियों का हुंदर ग्राम,

(VII) धार ग्राम पंचायत के गहलोतों का वास, बीयाल, कुण्डाल उबेश्वरजी, धार, बडंगा तथा बनादिया ग्राम,

(ग) मावली तहसील के नउवा ग्राम पंचायत के नउवा, खादरा, रायजी का गुढ़ा तथा मारूवास ग्राम

(घ) निम्नानुसार उल्लिखित वल्लभनगर तहसील की ग्राम पंचायतों के निम्नलिखित ग्राम:

(I) माल की टूस ग्राम पंचायत के माल की टूस, गोवला, फलेट, टांक और ब्राह्मणों का रोबा ग्राम,

(II) धावडिया ग्राम पंचायत के धाव़डिया, खेड़ाफला, नागलिया, रानी डूंगला और राणिया ग्राम,

(III) भोपा खेड़ा ग्राम पंचायत के भोपा खेड़ा, बेरीपुरा, हमेरपुरा, फूसरिया और रायला ग्राम,

(IV) कुण्डई ग्राम पंचायत के कुण्डई, भमेला, गोटीपा, कांकरियों का खेड़ा, नाहरपुरा उर्फ नारपुरा, पदमा खेड़ा और संग्रामपुरा ग्राम ।

(5) राजसमन्द जिले में निम्नलिखित :

(क) निम्नानुसार उल्लिखित कुंभलगढ़ तहसील की ग्राम पंचायतों के निम्नलिखित ग्राम :

(i) आंतरी ग्राम पंचायत के आंतरी, सन्दूकों का गुढ़ा और बारां ग्राम,

(ii) कुचोली ग्राम पंचायत के कुचोली, केशर और बावदा ग्राम,

(iii) ओड़ा ग्राम पंचायत के ओड़ा, दोवास और कोदार ग्राम,

(iv) पीपाना ग्राम पंचायत के पीपाना, जेतारण और देलवाड़िया ग्राम,

(v) बरदड़ा ग्राम पंचायत के बरदड़ा, उदावड़, कलथाना और कोटड़ा ग्राम,

(ख) नाथद्वारा तहसील के कालीवास ग्राम पंचायत के निम्नलिखित ग्राम, अर्थात्:-

कालीवास, बरवा, बरवालिया, बेरन, कमली का गुढ़ा, गामेठों का नोहरा, दामावड़ी, कोलर, मुंजेला, लीलेरा, रायनिया, श्यामजी का गुढ़ा, सियोल, सोनगरिया और तांतेला ग्राम ।

(6) निम्नानुसार उल्लिखित चित्तौडगढ़ जिले में बड़ी सादड़ी तहसील की ग्राम पंचायतों के निम्नलिखित ग्राम :-

(क) रति चन्दजी का खेड़ा ग्राम पंचायत के आफरों का तालाब, लिंकोड़ा, सुल्तानपुरा, बोरखेड़ा, सेमल खेड़ा, रूघनाथपुरा, कीटखेड़ा, रती तलाई, रति चन्दजी का खेड़ा, चांदपुरा, सबलपुरा तथा गुन्दलपुर ग्राम,

(ख) अमीरामा ग्राम पंचायत के अमीरामा, मानपुरा, पारबती, रूपपुरा तथा मरावडिया ग्राम,

(ग) केवलपुरा ग्राम पंचायत के केवलपुरा (ए), केवलपुरा जागीर, रावतपुरा, शिवपुरा, टेगडियों का फला, नया खेड़ा, रानी माल्या, काली भीत, लछमीपुरा, हरीपुरा, श्यामपुरा, जूनी बड़वाल, कल्याणपुरा तथा केवलपुरा (बी) ग्राम,

(घ) मूंजवा ग्राम पंचायत के मूंजवा, जयसिंहपुरा, एकलिंगपुरा, मातामगरी, ढीकडिया खेडी, पूजां का फलियान, पायरी, केशरपुरा, खांखरिया खेड़ी, लालपुरा, काला खेत तथा दीपों का तालाब ग्राम,

(ङ) पारसोली ग्राम पंचायत के पारसोली, बोरूण्डी, गढ़ बोरूण्डी, संग्रामपुरा, राठोडों का खेड़ा, खेड़ी कलां, खेड़ी खुर्द तथा सुखपुरा ग्राम।

(7) निम्नानुसार उल्लिखित पाली जिले में निम्नलिखित बाली तहसील की ग्राम पंचायतों के निम्नलिखित ग्राम :-

(क) आमलिया ग्राम पंचायत के आमलिया, कागदड़ा, ठंडी बेरी, लक्ष्मणपुरा जोड़ और बोथरा ग्राम,

(ख) कूरण ग्राम पंचायत के कूरण, खेतरली, कोलवाडा, कोतीवाडा, कूरण खादरा और खेतरली खाडा ग्राम,

(ग) गोरिया ग्राम पंचायत के गोरिया और कोरवा ग्राम,

(घ) भीमाना ग्राम पंचायत के भीमाना, उपला भीमाना, तणी, उरणा और नाडीया ग्राम,

(ङ) काकराडी ग्राम पंचायत के काकराडी, अरडवा, दानवरली, सांभरवाडा और बेरड़ी ग्राम,

(च) मालनू ग्राम पंचायत के मालनू, हीरोला और लालपुरा ग्राम,

(छ) पीपला ग्राम पंचायत का पीपला ग्राम,

(ज) लुन्दाड़ा ग्राम पंचायत के लुन्दाड़ा, चिमनपुरा और मालदर ग्राम,

(झ) कोयलावाव ग्राम पंचायत के कोयलावाव, चिंगटा भाटा और चोपा की नाल ग्राम।

(8) सिरोही जिले में निम्नलिखित :

(क) आबूरोड़ तहसील

(ख) निम्नानुसार उल्लिखित पिण्डवाड़ा तहसील की ग्राम पंचायतों के निम्नलिखित ग्राम :-

(i) वरली ग्राम पंचायत के वरली, कुण्डाल, साबेला, वागदरी, ढांगा, कालुम्बरी और पिण्डवाड़ा (ग्रामीण) ग्राम,

(ii) मोरस ग्राम पंचायत के मोरस, चीनिया बन्द और भादावेरी ग्राम,

(iii) आमली ग्राम पंचायत के आमली, ठंडी बेरी, सादलवा और मालप ग्राम,

(iv) घरट ग्राम पंचायत के घरट, मालेरा, नवावास, गड़िया और पहाड़ कलां ग्राम,

(v) लोटाना ग्राम पंचायत के लोटाना, आपरी खेड़ा और कालाबोर ग्राम,

(vi) माण्ड़वाड़ा खालसा ग्राम पंचायत के माण्ड़वाड़ा खालसा, खोखरी खेड़ा और वारकी खेड़ा ग्राम,

(vii) सनवाड़ा ग्राम पंचायत के सनवाड़ा, सदा फली, नवावास देव, नवावास खालसा और सेमली ग्राम,

(viii) ईसरा ग्राम पंचायत के ईसरा, केर, उबेरा और चुरली खेड़ा ग्राम,

(ix) वालोरिया ग्राम पंचायत का वालोरिया ग्राम,

(x) माण्ड़वाड़ा देव ग्राम पंचायत के माण्ड़वाड़ा देव, पीटारी पादर, केदार पादर और बोर उमरी ग्राम,

(xi) भूला ग्राम पंचायत का भूला ग्राम,

(xii) अचपुरा ग्राम पंचायत के अचपुरा, कासीन्दा, नागपुरा, पंच देवल, ब्लॉक नं. 2 और कोटरा ग्राम,

(xiii) बसन्तगढ़ ग्राम पंचायत का बसन्तगढ़ ग्राम,

(xiv) सिवेरा ग्राम पंचायत के सिवेरा, राजपुरा, केशवगंज और दरला पादर ग्राम।

3. राज्यक्षेत्रीय प्रभाग, चाहे वह किसी भी नाम से उपदर्शित हो, के पूर्वगामी पैरा में किसी निर्देश का अर्थ लगाया जाएगा कि वह इस आदेश के प्रारम्भ पर यथाविद्यमान उस नाम के राज्यक्षेत्रीय प्रभाग के प्रति निर्देश है ।

राम नाथ कोविंद,
राष्ट्रपति।

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[फा.सं.1(31)/2017-वि.1]
डॉ.रीटा वशिष्ठ, अपर सचिव

MINISTRY OF LAW AND JUSTICE

(Legislative Department)

NOTIFICATION

New Delhi, the 19th May, 2018

G.S.R. 466(E).—The following Order made by the President is published for general information:—

"C.O.270"

THE SCHEDULED AREAS (STATE OF RAJASTHAN) ORDER, 2018

In exercise of the powers conferred by sub-paragraph (2) of paragraph 6 of the Fifth Schedule to the Constitution of India, the President hereby rescinds the Scheduled Areas (State of Rajasthan) Order, 1981, and in consultation with the Governor of that State, is pleased to make the following Order, namely: —

1. (1) This Order may be called the Scheduled Areas (State of Rajasthan) Order, 2018.

(2) It shall come into force at once.

2. The areas specified below are hereby redefined to be the Scheduled Areas within the State of Rajasthan:—

(1) Banswara district.

(2) Dungarpur district.

(3) Pratapgarh district.

(4) The following in Udaipur district:

(a) Tehsils of Kotra, Jhadol (erstwhile Phalasia), Lasadia, Salumbar, Sarada, Kherwara, Rishabhdeo and Gogunda;

(b) the following in Girwa tehsil:

(i) Girwa block,

(ii) the following villages of the gram panchayats of block Bargaon as mentioned below: —

(I) Madar, Brahmanon Ki Hunder, Rathoron Ka Gurha, Bandarwara, Ghodan Kalan, Ghoran Khurd and Kaylon Ka Gurha villages of Madar gram panchayat,

(II) Kailashpuri, Raya, Karawari, Mathatha, Nagda, Jhalon Ka Gurha and Munwas villages of Kailashpuri gram panchayat,

(III) Cheerwa, Mohanpura, Shivpuri, Karelon Ka Gurha and Sare villages of Cheerwa gram panchayat,

(IV) Amberi, Bheelon Ka Bedla, Oton Ka Gurha and Pratappura villages of Amberi gram panchayat,

(V) Dheekli and Bada villages of Dheekli gram panchayat,

(VI) Kavita, Barodiya, Ghasiyar and Dangiyon Ka Hundar villages of Kavita gram panchayat,

(VII) Gehloton Ka Was, Beeyal, Kundal Ubeshwarji, Dhar, Badanga and Banadiya villages of Dhar gram panchayat;

(c) the Nauwa, Khadra, Raiji Ka Gurha and Maruwas villages of the Nauwa gram panchayat of Mavli tehsil;

(d) the following villages of the gram panchayats of Vallabhnagar tehsil as mentioned below:—

(I) Mal Ki Toos, Gowala, Phalet, Tank and Brahmanon Ka Roba villages of Mal Ki Toos gram panchayat,

(II) Dhawariya, Kheraphala, Nagaliya, Rani Doongla and Raniya villages of Dhawariya gram panchayat,

(III) Bhopa Khera, Beripura, Hamerpura, Phoosariya and Rayla villages of Bhopa Khera gram panchayat,

(IV) Kundai, Bhamela, Gotipa, Kankariyon Ka Khera, Naharpura *alias* Narpura, Padma Khera and Sangrampura villages of Kundai gram panchayat.

(5) The following in Rajsamand district:

(a) the following villages of the gram panchayats of Kumbhalgarh tehsil as mentioned below:

(i) Antri, Sandookon Ka Gurha and Baran villages of Antri gram panchayat,

(ii) Kucholi, Keshar and Bawada villages of Kucholi gram panchayat,

(iii) Ora, Dowas and Kodar villages of Ora gram panchayat,

(iv) Peepana, Jetaran and Delwariya villages of Peepana gram panchayat,

(v) Bardara, Udawar, Kalthana and Kotra villages of Bardara gram panchayat;

(b) the following villages of Kaliwas gram panchayat of Nathdwara tehsil, namely, Kaliwas, Barwa, Barwaliya, Beran, Kamli Ka Gurha, Gamethon Ka Nohara, Damawari, Kolar, Munjela, Leelera, Rainiya, Shyamji Ka Gurha, Siyol, Songariya and Tantela.

(6) The following villages of the gram panchayats of Bari Sadri tehsil in Chittorgarh district as mentioned below:

(a) Afron Ka Talab, Linkoda, Sultanpura, Borkhera, Semal Khera, Rughnathpura, Keetkhera, Rati Talai, Rati Chandji Ka Khera, Chandpura, Sabalpura and Gundal Pur villages of Rati Chandji Ka Khera gram panchayat,

(b) Ameerama, Manpura, Parbati, Roop Pura and Maraodiya villages of Ameerama gram panchayat,

(c) Kewalpura (A), Kewalpura Jageer, Rawatpura, Shiv Pura, Tegariyo Ka Phala, Naya Khera, Rani Malya, Kali Bheet, Lachhmipura, Haripura, Shyampura, Jooni Barwal, Kalyanpura and Kewalpura (B) villages of Kewalpura gram panchayat,

(d) Moonjwa, Jaisinghpura, Eklinghpura, Matamagari, Dheekriya Kheri, Pujan Ka Phalian, Payri, Kesharpura, Khankhariya Kheri, Lalpura, Kala Khet and Deepon Ka Talab villages of Moonjwa gram panchayat,

(e) Parsoli, Borundi, Garh Borundi, Sangrampura, Rathoron Ka Khera, Kheri Kalan, Kheri Khurd and Sukhpura villages of Parsoli gram panchayat.

(7) The following villages of the gram panchayats of Bali tehsil in Pali district as mentioned below:

(a) Amliya, Kagdara, Thandi Beri, Laxman Pura Jod and Bothara villages of Amliya gram panchayat,

(b) Kooran, Khetrali, Kolwara, Kotiwada, Kooran Khadra and Khetrali Khada villages of Kooran gram panchayat,

(c) Goriya and Korwa villages of Goriya gram panchayat,

(d) Bheemana, Upla Bheemana, Tani, Urana and Nadiya villages of Bheemana gram panchayat,

(e) Kakradi, Aradwan, Danverli, Sambharwara and Berdi villages of Kakradi gram panchayat,

(f) Malnoo, Heerola and Lalpura villages of Malnoo gram panchayat,

(g) Peepla village of Peepla gram panchayat,

(h) Lundara, Chimanpura and Maldar villages of Lundara gram panchayat,

(i) Koyalavao, Chingta Bhata and Chopa Ki Nal villages of Koyalavao gram panchayat.

(8) The following in Sirohi district:

(a) Aburoad tehsil;

(b) the following villages of the gram panchayats of Pindwara tehsil as mentioned below:

(i) Varli, Kundal, Sabela, Vagdari, Dhanga, Kalumbari and Pindwara (Rural) villages of Varli gram panchayat,

(ii) Moras, Cheeniya Band and Bhadaveri villages of Moras gram panchayat,

(iii) Amli, Thandi Beri, Sadalwa and Malap villages of Amli gram panchayat,

(iv) Gharat, Malera, Navawas, Gadiya and Pahar Kalan villages of Gharat gram panchayat,

(v) Lotana, Apri Khera and Kalabor villages of Loutana gram panchayat,

(vi) Mandwara Khalsa, Khokhri Khera and Varki Khera villages of Mandwara Khalsa gram panchayat,

(vii) Sanwara, Sada Phali, Navawas Dev, Navawas Khalsa and Semli villages of Sanwara gram panchayat,

(viii) Isra, Ker, Ubera and Churli Khera villages of Isra gram panchayat,

(ix) Waloriya village of Waloriya gram panchayat,

(x) Mandwara Deo, Peetari Padar, Kedar Padar and Bor Umri villages of Mandwara Deo gram panchayat,

(xi) Bhoola village of Bhoola gram panchayat,

(xii) Achpura, Kaseenda, Nagpura, Panch Dewal, Block No. 2 and Kotra villages of Achpura gram panchayat,

(xiii) Basant Garh village of Basant Garh gram panchayat,

(xiv) Siwera, Rajpura, Keshavganj and Darla Padar villages of Siwera gram panchayat.

3. Any reference in the preceding paragraph to a territorial division by whatever name indicated shall be construed as a reference to the territorial division of that name as existing at the commencement of this Order.

RAM NATH KOVIND,
President.

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[F. No. 1(31)/2017-Leg. I]
Dr. REETA VASISHTA, Addl. Secy.

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