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**Rural Water Supply and Sanitation
Project for Low Income States**

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Environmental Management Framework
(Annex on identification of Physical Cultural Resources (PCRs)- OP 4.11)

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Rural Water Supply and Sanitation Project for Low Income States

Physical Cultural Resources, their Identification and Inclusion in Project Design and Implementation

1. INTRODUCTION

Preparation of this document was undertaken towards fulfilment of one of the actions envisaged during restructuring of the Rural Water Supply and Sanitation Project for Low Income States (RWSSLIS). The Restructuring Paper for the project recommends triggering of OP 4.11 Physical Cultural Resources, which necessitates identification of Physical Cultural Resources (PCRs) and inclusion of appropriate measures for their protection in project design and implementation actions.

This document is intended to function as an addendum to the EA-EMF prepared for each constituent state of the project and contains the following:

1. A baseline assessment of the situation pertaining to PCRs in each state
2. Procedures for
 - a. Identifying and locating PCRs that might be impacted in any manner by project activities
 - b. Determining potential adverse impacts of project activities on any PCRs, and
 - c. Guidance on managing and mitigating all identified adverse impacts

2. DEFINING PCRs

According to OP 4.11,

“Physical and Cultural Resources are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings, and may be above or below ground, or under water. Their cultural interest may be at the local, provincial or national level, or within the international community.”

PCRs could symbolize cultural identities of specific communities due to which, there may be certain emotional attachment associated with them. Some PCRs may also have religious significance. Consequently, impact of any project related activity on a PCR could have a significant bearing on the very cultural identity of the community or ethnic group identifying itself with the same.

Although PCRs may be associated with any group, community or religion, certain marginalized or backward groups such as tribal may need to be given more focused attention in the process of identification of their PCRs since such communities may not have adequate representation in the institutional structure of local governance institutions such as Gram Panchayats. This is to be

kept sight of in case of the four project states, as there are multiple pockets with significant tribal presence in these states.

As mentioned above, the objective of OP 4.11 is to prevent or mitigate adverse impacts on PCRs by development projects undertaken through World Bank financial support. Projects classified either as Category A or B, are covered under the provisions of OP 4.11. These include (i) any project involving significant excavations, demolition, movement of earth, flooding, or other environmental changes; and (ii) any project located in, or in the vicinity of, a physical cultural resources site recognized by the borrower. The policy also applies to projects designed to support the management or conservation of PCRs, including PCRs that may not be covered under the borrower's legislations or under any relevant international environmental treaties and agreements.¹

3. BASELINE

3.1. Presence of tribal populations in the four project states

As mentioned above, PCRs associated with tribal populations need to be given closer attention due to vulnerability and oft exclusion of such populations. This section gives details on the existing tribal groups in the four project states.

According to the 2011 census, the total scheduled tribal population in India was 1,04,281,034 persons. Of the total tribal population about 90% resided in rural areas and 14% of total tribal population of the country lives in the four project states (see details in table below).

Scheduled Tribe Population in Project Area, 2011

	Male			Female		
	Total	Rural	Urban	Total	Rural	Urban
INDIA	5,24,09,823	4,71,26,341	52,83,482	5,18,71,211	4,66,92,821	51,78,390
Assam	1,957,005	1,847,326	109,679	1,927,366	1,818,079	109,287
Bihar	682,516	648,535	33,981	654,057	622,316	31,741
Jharkhand	4,315,407	3,928,323	387,084	4,329,635	3,939,827	389,808
Uttar Pradesh	581,083	526,315	54,768	553,190	504,761	48,429

Source: Ministry of Tribal Affairs. <https://tribal.nic.in/>; <https://data.gov.in/>, accessed 21 May, 2019

However, tribal populations are not spread in all areas of the project state or in every district. Based upon the 2011 Census, in Assam tribal populations can be found in all project districts. The tribes present in the project districts include *Barmans, Boro, Borokachari, Deori, Hojai, Kachari, Sonwal, Lalung, Miri, Rabha, Dimasa, Hajong, Garo, Mech, Singhpho, Khampti*², This apart, there are also some tea gardens in the project, and include what are known as tree tribes and ex-tea tribes. These tea tribes originate from Orissa, Bihar, Madhya Pradesh, Andhra Pradesh and West Bengal, and are categorised as Other Backward Classes by the Government. However, in other states, a number of these groups are identified as scheduled tribes, and some

¹ World Bank, 2013, OP 4.11 Physical Cultural Resources, July 2006. Revised April 2013; World Bank, 2009. Physical Cultural Resources Safeguard Policy Guidebook.

² <https://data.gov.in/>, accessed 21 May, 2019

of them are also present in other project states. While not all tea tribes and ex-tea tribe populations live in the project area, some of them are found in the project area. Assam's tea tribes and ex-tea tribes are. *Ahirgoala, Arya Mala, Asur, Barhai, Basphor, Bhokta, Bauri, Bowri, Bhuyan, Bhumij, Bedia, Beldar, Bharaik, Bhata, Basor, Baiga, Baiara, Bhil, Bondo, Binjia, Birhar, Birjia, Beddi, Chamar, Chodhari, Chere, Chick Banik, Dandari, Dandasi, Dusad, Dhanwar, Ganda, Gonda, Gond, Ghansi, Gorait, Ghatowar, Hari, Holra, Jolha, Keot, Koiri, Khonyor, Kurmi, Kawar, Karmali, Korwa, Kol, Kalahandi, Kalihandi, Kotwal, Kharia, Kumhar, Kherwar, Khodal, Khond, Koya, Kondpan, Kohor, Kormakar, Kashan, Lahar, Lodha, Lodhi, Madari, Mahli, Mohali, Modi, Mahato, Malpatharia, Manki, Majwar, Mirdhar, Munda, Nonia, Nunia, Nagasia, Nagbansi, Nath, Oraon, Pasi, Paidi, Pan, Panika, Parja, Patratanti, Pradhan, Rajwar, Sahora, Santhal, Santal, Sarvera, Turi, Telanga, Tassa, Tantubai, Teli and Tanti*³. This therefore also illustrates the need to consider not just identified tribal populations but other groups, too, as many others may either be linked, or similar associations.

All six project districts in Jharkhand have tribal populations. There are about 30 major tribes in Jharkhand. The tribes in the state of Jharkhand, though not necessarily in the project area include, *Asur, Agaria, Baigh, Bathudi, Dedia, Binjhia, Bihor, Birjia, Chero, Chik Baraik, Gond, Gorait, Ho, Karmali, Kharia, Dheliki Kharia, Dudh Kharia, Hill Kharia, Karwar, Khond, Kisan, Nagesia, Kora, Mudi-Kora, Korwa, Lohra, Mahli, Mal Pahraia, Kumarbhag Paharia, Munda, Patar, Oraon, Dhangar, Parhaiya, Santal, Sauria Paharia, Savar, Bhumij, Kawar and Kol*⁴. According to the 2011 Census 6 of Bihar's project districts have a presence of tribal population. These are Purnia, Saran, Munger, Nalanda, Patna and Nawada. The tribal groups present in Bihar are similar to that of Jharkhand. They include *Asur, Agaria, Baiga, Banjara, Bathudi, Bedia, Binjhia, Birhor, Birjia, Chero, Chik Baraik, Gond, Gorait, Ho, Karmali, Kharia, Dhelki Kharia, Dudh Kharia, Hill Kharia, Kharwar, Khond, Kisan, Nagesia, Kora, Mudi-Kora, Korwa, Lohara, Lohra, Mahli, Mal Paharia, Kumarbhag Paharia, Munda, Patar, Oraon, Dhangar (Oraon), Parhaiya, Santal, Sauria Paharia, Savar, Kawar, Kol, and Tharu*.

In Uttar Pradesh, the project districts with tribal populations, according to the 2011 Census are Bahraich, Gonda, Siddharthnagar, Sant Kabir Nagar, Kushinagar, Deoria, Ballia, Gazipur, Varanasi and Sonbhadra. Some of the tribes present here are Gonds, Dhuria, Nayak, Ojha, Pathari, Raj Gond, Kharwar, Khairwar, Parahiya, Baiga, Agariya, Patari, Chero, Bhuiya and Bhuinya.⁵

Within the project area, there are also a number of Particularly Vulnerable Tribal Groups, previously called the Primitive Tribal Groups. These are the *Asurs, Birhor, Birjia, Hill Kharia, Korwas, Mal Paharia, Parhaiyas, Sauria Paharia and the Savar*. These are the marginalized and economically less advanced communities⁶.

3.2. Typical Tribal PCRs

Given below are a few illustrative examples of PCR belonging to certain ethnic tribes of India:

³ <http://pib.nic.in/newsite/PrintRelease.aspx?relid=87106> 21 May, 2019

⁴ <http://censusindia.gov.in/>

⁵ *ibid*

⁶ *ibid*

- Mundas: They bury their ancestors who are treated as guardian spirits. These ancestors are symbolized by *sasandiri*, a burial stone.
- Santhals: They believe in guardian spirits who reside in a sacred grove at the edge of the settlement. The Santhals offer prayers and certain objects to placate these spirits.
- Birhor: Their religious practices include a mixture of animism, animatism, naturalism, and the worship of spirits.⁷
- Niyamgiri Forest Range: The Dongaria Khond believe an area identified as Niyam Gongar in the ranges to be their birthplace of their god Niyam Raja.⁸
- Nartiang Monoliths: These monoliths are supposed to represent important events and kings of the Jaintia people of Meghalaya.
- Sacred Banyan and Pipal trees: Certain communities in North India; that include Uttar Pradesh and Bihar, worship the Banyan trees. Hence these trees cannot be cut or disturbed. Similarly, the Pipal tree is considered the abode of the god Shani and therefore also a sacred tree, not to be cut, as per beliefs of many communities.

As is seen from these examples, PCRs can include a host of different objects, not all obvious or visible to outsiders. They may include water bodies, hills, trees or other fauna or flora, rocks or other physical and landscape locations, graves or burial sites etc. PCRs can be both, natural features or man-made objects which are important to a particular community or religion or a groups identity. Also, not all PCRs may be above the ground: they may be encountered by chance while undertaking excavation during construction activities. Such cases are known as “chance finds”.

3.3. Laws and Regulations Governing PCRs

3.3.1. The Ancient Monuments and Archaeological Sites and Remains Act 1958 and amendments

This Act is for the conservation and protection of ancient and historical monuments and archaeological sites and remains of nation importance, and for the regulation of archaeological excavation and protection for sculptures, carvings and other similar objects. According to this act, an ancient monument is to be in existence for at least 100 years to come under protection of this Act.

The Central Act further states that nobody, including the owner or occupier of a protected area, is to construct any building within the protected area or carry on any mining, quarrying, excavating, blasting or any operation of a similar nature in the protected area, or use the whole or part of the area without prior permission of the Central Government. This prohibited area has been further defined as an area near or adjoining a protected monument which the Central Government has, by notification in the Official Gazette, declared to be a prohibited area by the Ancient Monuments and Archaeological Sites and Remains Rules of 1959.

⁷ Ministry of Tribal Affairs. <https://tribal.nic.in/>

⁸ <https://www.downtoearth.org.in>, June 2015

The 2010 Act identifies the limit of a prohibited areas to a distance of 100 meters in all directions from the protected site, unless a larger area is recommended for designation of a prohibited area by the designated authority. While only archaeological officers are permitted to carry out any construction work in any prohibited area, according to the 2010 Act in the prohibited area, no other activities can take place, not even those projects essential to the public or other construction work.

A 200 meters further radius starting from the prohibited area is the regulated area for all nationally protected monuments. Any repair work, construction or re-construction in this regulated area will require a permit from the Competent Authority, as defined under the 2010 Act. Permission to allow for the construction/repair activity will need to be given or refused within a period of 2 months from application. According to the 2011 Rules, the requested permission will need to provide detailed site plans as a part of the application, and is noted in these Rules, without which the request for permit may need to be resubmitted. The 2011 Rules, also require that for each area have a site plan that is available with the Competent Authority along with protected sites specific by-laws etc.

According to the 1959 Rules, unless permitted in any area of a protected area, no activity that causes damage to any part of the monument can be undertaken. Also, cooking or consuming food is only permitted in areas used for that purpose. Any vehicle to be brought within the premises is only allowed in the area designated for it. All construction and mining activities within the protected area need permission by the Central Government, as identified in the Rules and at least 3 months prior to the construction activity starting. In case of prohibited or regulated areas, any mining or construction operations can only be undertaken after permission of the Director-General as identified in these Rules, and based upon the terms and conditions of the license to undertake the activity.

3.3.2. Indian Treasure Trove Act, 1878 (as modified up to 1st September, 1949)

Defining treasure to be anything of value hidden in the soil, or in affixed to any place, this Act discusses the procedures of finding treasure and its declaration. For any treasure of value higher than INR 10 found, the finder needs to give the District Collector a notice in writing of the nature and amount of approximate value of the treasure and the place it is found, at the earliest possible. For treasure that may have claimants, the Act identifies processes and allows time for the claimant to make claims, including for disputed claims. In case of treasure without owners, the Collector may declare it ownerless. The Collector may also acquire the treasure on behalf of the Government as identified in the Act. In case the finder does not give notice or attempts to alter or conceals its identity, the finder may be convicted and punished for the concealment. There are also a number of state protected monuments and are the jurisdiction of the state legislations, as mentioned below.

3.3.3. The Assam Ancient Monuments and Records Act, 1959 (Assam Act No. XXV of 1959)

This Act is for the preservation of ancient and historical monuments and archaeological sites and remains in Assam other than those declared by Parliament by law to be of national importance.

3.3.4. The U.P. Ancient and Historical Monuments and Archaeological Sites and Remains Preservation Act, 1956. U.P. Act No. VII of 1957

An Act to provide for the preservation of ancient and historical monuments and archaeological sites and remains in Uttar Pradesh other than those declared by Parliament by law to be of national importance.

3.3.5. Jharkhand Ancient Monuments and Archaeological Sites, Remains and Art Treasures Act, 2016 (Act No. 14 of 2016)

The Act is for the preservation of ancient monuments and archaeological sites and remains other than those declared by or under law made by parliament to be of national importance for the regulation of archaeological excavation and for the protection of antiquities in the state of Jharkhand.

3.3.6. The Bihar Ancient Monuments and Archaeological Sites Remains and Art Treasures Act, 1976

To provide for preservation of ancient monuments and archaeological sites and remains other than those declared by or under law made by parliament to be of national importance for the regulation of archaeological excavations and for the protection of antiquities in the state of Bihar.

3.4. Definitions under the Acts

Ancient Monument: Any structure, erection or monument or any tumulus or place of internment, or burning or any cave, rock-sculpture, inscription or monolith, which is of historical, archaeological or artistic interest, and which has been in existence for not less than one hundred years and includes w the remains thereof, w the site thereof,

- the portion of land adjoining such site which may be necessary or required for the preservation, protection, upkeep and maintenance of the same; and
- the means of access thereto and of convenient inspection and repairs thereof; (b)

Antiquity: includes:

- any coin, sculpture, painting, epigraph, or other work of art or craftsmanship.
- any article, object or thing detached from a building or cave;
- any article, object or thing illustrative of science, art, crafts, literature, religion, customs, morals or politics in bygone ages;
- any article object or thing of historical interest; and
- any article object or thing which the State Government may by reason of its historical or archaeological association by notification in the Official Gazette, declare to be an antiquity for the purposes of this Act and which has been in existence for not less than one hundred years, and w any manuscript, record or other document which is of scientific, historical, literary or aesthetic value and which has been in existence for not less than seventy-five years.

“Art Treasure” means any human work of art, not being an antiquity declared by the State Government by notification in the Official Gazette, to be an art treasure for the purposes of this Act having regard to its historical and aesthetic value;

3.5. Implications

No person, including the owner or occupier of a protected area, shall construct any building within protected area or carry on any mining, quarrying excavating, blasting or any operation of a like nature in such area, or utilize such area or any part thereof in any other manner without the permission of the State Government:

3.5.1. Excavations in Protected Area:

An archaeological officer or an officer authorized by him in his behalf or any person holding a license granted in this behalf under this Act (hereinafter referred to as the licensee) may, after giving notice in writing to the Director and the owner, enter upon and make excavations in any protected area if it is not inconsistent with the provisions of section 24 of the Ancient Monuments Provisions, Archaeological Sites and Remains Act, 1958 (24, 1958)

3.5.2. Compulsory Acquisition of Antiquities, etc., discovered during excavation operations:

If any antiquities are discovered, the archaeological officer or the licensee, as the case may be shall (a) as soon as practicable, examine such antiquities and submit a report to the State Government in such manner and containing such particulars as may be prescribed. (b) at the conclusion of the excavation operations, give notice in writing to the owner of the land from which such antiquities have been discovered, as to the nature of such antiquities.

Until an order for the compulsory acquisition of any such antiquities is made under sub-section, the archaeological officer or the licensee, as the case may be, shall keep them in such safe custody as he may deem fit.

On receipt of a report under sub-section the State Government may make an order for the compulsory acquisition of any such antiquities at their market value.

4. PCR SCREENING PROCESS

It is evident that prior screening of the project area (before start of implementation activity) in consultation with the community for identifying PCRs and determining which of them may be impacted can go a long way in preventing adverse consequences. This section describes a screening procedure developed to facilitate the above.

PCR screening needs to be undertaken early in the project planning and design stage, and should be undertaken at the same time as the preparation of the Environment Data Sheet (EDS). The PCR screening format (appended to this annexure), should be attached as an annex to the EDS. A mitigation strategy for addressing all relevant findings regarding affected PCRs entered in the PCR screening format should be included in the Environment Management Plan (EMP).

In order to identify affected PCRs accurately and ensure that views and feelings of the associated communities are factored in suitably it is important to conduct community consultations in as thoroughly and exhaustively as possible. The consultations should be held with adequate prior written notice and the mix of participants in attendance should be representative the local

demography including affected communities. The community should be apprised of implications of the proposed project on all identified affected PCRs and possible mitigation alternatives. Also, they should be informed about all associated details including implications of construction or related activities such as material storage, waste disposal, labour camp, etc.

At the time of the screening, the social specialist, the project engineer/technical specialist and relevant government officials should be included in the consultative process. Apart from the PCR screening format (see appended format), scheme maps and diagrams should be also available while undertaking the screening process.

4.1. Steps for screening PCRs

- 1) Identification of affected PCRs and planning of associated consultations:
 - a. As a part of the introductory meeting with GP, identify and map the stakeholders and communities in the area, to ensure that all relevant PCRs are demarcated.
 - b. Map GP to identify different hamlets/wards and groups residing there, and those who maybe using any of the areas, even around the GP edge that may be planned for any of the scheme infrastructure.
 - c. Contact the different stakeholders and identify appropriate time to meet with them.
 - d. There may be a need to conduct more than one consultative meeting for PCR identification, in different areas and with different groups. This should be discussed with the social specialist who is likely to have an understanding of the social composition and relationships in the area.

- 2) Conduction of consultation for PCR Screening Process
 - a. Explain scheme, its components and locations and consultative meeting goal.
 - b. Use screening format to identify possible PCRs in the area.
 - c. Where PCRs are identified, undertake a transact walk in the area to identify location. Fill the relevant details in the PCR screening format and locate the PCR on the scheme map. This transact walk will be important to identify not just the location of the PCR but also if it is likely to be either directly or indirectly impacted by the project.
 - d. For all PCRs that could be impacted by project activities, in the office, with the help of the project engineers and technical team, work to identify set of options for scheme design to either avoid or mitigate any adverse impact that may have been identified.
 - e. Return to the community that owns the PCR with various options and identify most appropriate way to manage/mitigate impacts from scheme activity.
 - f. Record and minute all meetings and attach minutes of meetings for all PCRs to the PCR screening format.
 - g. When undertaking the PCR screening, ensure you have more than one copy of Part D and E of the screening format, as in case more than 1 PCR is identified details of every PCR will need to be filled in a separately.

3) Filling of PCR Format

- a. In the combined EDS and PCR consultative meeting, introduce PCRs and explain what they are.
- b. Ask if anyone in the meeting knows about/ is aware about PCRs in the scheme area.
- c. If yes, identify those community members who know about the PCRs in the area and in consultation with them locate the PCRs on the scheme maps and in the scheme area.
- d. Visit the sites where PCRs are located to identify if they maybe impacted by project activities, with the project technical specialist/engineer.
- e. If there is a possibility of the PCR of the being impacted by any project activities; either directly or indirectly, fill the rest of the PCR format. If not, there is no need to fill the format after the first section of Part C. Even if there are no impacted PCRs in the scheme area, please file the PCR screening format as an Annex to the EDS.
- f. For schemes where there are PCRs that may be impacted by project activities, ff any questions from 1 to 6 of Section E are yes, undertake detailed discussion with the community on possible need to shift/modify or realign the PCR site.
- g. Since it is possible that only specific communities know about/can provide details of their PCRs, it is important to consult with the different communities in the scheme before finalizing the PCR format.
- h. Prior to finalizing Part E of the form, a site visit to identified PCR(s) must be undertaken to assess possible impact from the scheme. The project specialist/engineer should be included in this visit, which needs to be done with members of the community who own the PCR.
- i. As required, more than one consultation may be undertaken to ensure that all communities are consulted and the PCR screening is a comprehensive assessment of all such resources in the scheme area.

4) Inclusion in EDS

- a. Once the PCR format has been filled, this is to be attached to the EDS, along with any maps, minutes of the meeting etc.
- b. Identified issues are to be included in the EDS under the section dealing with archaeology and other findings.

5) Identification of Management Actions

- a. As all schemes where PCRs may either directly or indirectly be impacted by scheme activities are Category 2 schemes, an EMP needs to be developed for the project.
- b. Include the findings of the PCR in the EMP
- c. Identify appropriate mitigation and management actions.
- d. Develop any guidelines required for the management of the PCR, including responsibilities at various stages of the scheme.
- e. Identify appropriate monitoring plan.
- f. Identify costs for PCR management action, and ensure they are included in overall scheme costs.

The EDS and the EMP will be reviewed by the Bank staff, where PCRs are identified. The review will include the adequacy of the management actions prior to approving the scheme for processing.

The EDS with the PCR screening format and details will be disclosed on the project website. However, exceptions to disclosure may be considered when the borrower, in consultation with the Bank and persons with relevant expertise, determines that disclosure would compromise or jeopardize the safety or integrity of the physical cultural resources involved or would endanger the source of information about the physical cultural resources. In such cases, sensitive information relating to these particular aspects may be omitted from the EA report.

5. MANAGEMENT ACTIONS

This section provides guidance on possible mitigation approaches to different situations / scenarios / ways in which PCRs could be impacted by project implementation activities. The corresponding suggested management actions may have monetary implications as well.

5.1. Impact on Account of Design and Locational Aspects of Scheme

SITUATION-1

Some of the major scheme infrastructure, such as WTP, pumping station, rising main, is to be located at the PCR site.

POSSIBLE MANAGEMENT ACTIONS

Option-1: If community **agrees to relocate**⁹ PCR,

- Identify alternate site for relocation of PCR in consultation with the community who the PCR belongs to and the owner of the alternate site.
- In order that there are no objections or disagreement when the PCR is relocated, other communities living in the vicinity of the alternate site or using the area for any social or other activities must also be consulted to ensure the smooth transfer of the PCR.
- In collaboration with the team social specialist identify land ownership and transfer of ownership/purchase etc. according to the process identified in the social management framework.
- Plan relocation with the communities involved, there may be a need to consider local festivals, beliefs, and natural phenomenon (such as rainy season), that may guide when the PCR can be relocated.
- Identify actions to prepare new PCR site with the community and ensure the new site is prepared prior to the relocation.

⁹ Non-replicable cultural heritage, PCRs that may be best protected at their original location are likely to be irreparable damaged or destroyed by relocation should not be relocated unless (i) there is on other technically or financially feasible option but its relocation/removal; (ii) overall project benefits outweigh the loss of the PCR removal; and all removal and relocation is conducted using best available techniques.

- Work with the community owning the PCR to relocate the PCR. This may require specialists from outside the team and the community and therefore these specialists may need to be contacted and brought in for the process prior to starting relocation.
- Once the relocation is completed, only then start the scheme related activities at the site.
- It is advisable to take photographs, measurements etc of the PCR at its original location prior to any relocation in case it needed for future reference.

Option-2: If community **does not agree to shift/relocate PCR but agrees to realignment**

- Identify with the affected PCR owning community if they are agreeable to some realignment or allow the use of part of the land for the scheme infrastructure.
- If yes, then work with the community to identify realignment actions, prepare plan with community, and if needed bring in outside experts to help and undertaken realignment with the community. Ensure all realignment is planned in advance with the area prepared prior to realignment and is in the appropriate season/time of day etc. according to the sentiments of the communities involved. Once the work is completed, the all scheme related activities can be started.
- As a part of the PCR screening consultation, identify most appropriate time to undertake construction of the infrastructure keeping in mind any rituals etc. that may be undertaken at the PCR and may be disturbed by the construction activities.
- Identify actions that may be required in the construction contractor clauses to ensure that during construction all actions and issues are clearly identified and implemented to minimize disturbance to the PCR or disruption of work. Some of these may be identified through community discussions, and should be a part of the screening process.
- Consider providing a barrier between the PCR and the infrastructure, such as a boundary wall, where appropriate, to minimize disturbance to the PCR. However, this must be planned through discussions with the community to whom the PCR belongs.
- For all discussions on the realignment activities it is important to include the project technical expert/engineer as this will have an impact on the infrastructure design and to ensure that the design ensure the integrity of the PCR post realignment.
- It is advisable to take photographs, measurements etc of the PCR at its original location prior to any relocation in case it needed for future reference.

Option-3: If community **does not agree to shift/relocate PCR but agrees to allow the scheme infrastructure on part of the PCR land**

- If the community is willing to allow the use of part of the PCR land for infrastructure construction, identify the area agreeable to be used and activities that may be allowed or not allowed on that land.
- Identify, with the technical specialist/ engineer possible infrastructure design and share with the community. Discuss the design, its height, location etc. to ensure that the community sentiments are not offended post construction.
- Design scheme component based on what is aggregable with all stakeholders involved.
- Consider identifying a boundary/barrier in consultation with the community to ensure minimum disturbance to the PCR.

- As a part of the PCR screening consultation, identify most appropriate time to undertake construction of the infrastructure keeping in mind any rituals etc. that may be undertaken at the PCR and may be disturbed by the construction activities.
- Identify actions that may be required in the construction contractor clauses to ensure that during construction all actions and issues are clearly identified and implemented to minimize disturbance to the PCR or disruption of work. Some of these may be identified through community discussions, and should be a part of the screening process.
- Consider providing a barrier between the PCR and the infrastructure, such as a boundary wall, where appropriate, to minimize disturbance to the PCR. However, this must be planned through discussions with the community to whom the PCR belongs.
- Avoid using heavy machinery or machinery that creates high levels of vibration near the PCR site, to minimize risk of damage to the PCR.
- For all discussions on the land planning at the PCR site it is important to include the project technical expert/engineer as this will have an impact on the infrastructure design and to ensure that the design ensure the integrity of the PCR post construction.
- It is advisable to take photographs, measurements etc of the PCR at its original location prior to any relocation in case it needed for future reference.

Option-4: If community **does not agree to shift/relocate** PCR

- Identify alternate location for the planned infrastructure.

SITUATION-2

Underground scheme infrastructure is to be constructed under the PCR

POSSIBLE MANAGEMENT ACTIONS

Option-1: If community **agrees to infrastructure construction under** the PCR

- Identify if there is a need to temporarily relocated the PCR. This should involve the communities associated with the PCR, and the project technical and social specialists. In case temporary relocation required then,
- Identify alternate site for relocation of PCR temporarily in consultation with the community who the PCR belongs to and the owner of the alternate site
- In order that there are no objections or disagreement when the PCR is relocated, other communities living in the vicinity of the alternate site or using the area for any social or other activities must also be consulted to ensure the smooth temporary relocation of the PCR.
- In collaboration with the team social specialist identify land ownership and temporary transfer/ use etc. according to the process identified in the social management framework.
- Plan relocation with the communities involved, there may be a need to consider local festivals, beliefs, and natural phenomenon (such as rainy season), that may guide when the PCR can be relocated.
- Identify actions to prepare new temporary PCR site with the community and ensure the new site is prepared prior to the relocation.

- Work with the community owning the PCR to relocate the PCR. This may require specialists from outside the team and the community and therefore these specialists may need to be contacted and brought in for the process prior to starting relocation.
- Once the relocation is completed, only then start the scheme related activities at the site. In order that there are no objections or disagreement when the PCR is relocated, other communities living in the vicinity of the alternate site or using the area for any social or other activities must also be consulted to ensure the smooth transfer of the PCR.
- In collaboration with the team social specialist identify land ownership and transfer of ownership/purchase etc. according to the process identified in the social management framework.
- Plan relocation with the communities involved, there may be a need to consider local festivals, beliefs, and natural phenomenon (such as rainy season), that may guide when the PCR can be relocated.
- Identify actions to prepare new PCR site with the community and ensure the new site is prepared prior to the relocation.
- Work with the community owning the PCR to relocate the PCR. This may require specialists from outside the team and the community and therefore these specialists may need to be contacted and brought in for the process prior to starting relocation.
- Once the relocation is completed, only then start the scheme related activities at the site.
- Also identify with the PCR owning community at the time of the PCR screening consultation, what needs to be done prior to shifting back the PCR to its original site in terms of land preparation. These actions would need to be taken prior to shifting back the PCR to its original location.
- Plan and design infrastructure and construction activities to adhere to actions agreed with the community for rehabilitation of original PCR site.
- Once construction is completed, the PCR is to be relocated back to its original site and should be according to what is agreed with the communities involved.
- For all discussions on the land planning at the PCR site it is important to include the project technical expert/engineer as this will have an impact on the infrastructure design and to ensure that the design ensure the integrity of the PCR post construction.
- It is advisable to take photographs, measurements etc. of the PCR at its original location prior to any relocation in case it needed for future reference.

Option-2: If community **does not agree to infrastructure construction under** the PCR

- Identify alternate site/alignment for the infrastructure.

SITUATION-3

Obstruction to access, or reduction in integrity of PCR from scheme infrastructure

POSSIBLE MANAGEMENT ACTIONS

- Consider alternate alignment or entrance to the infrastructure as appropriate for the PCR.
- Change height/design of the infrastructure to minimize impact.

- Consider other elements in the infrastructure design to improve integrity of the area – such as plantation of certain plant/tree species that may create an appropriate ambience according to the PCR owner. Identification of such elements will need to be consultation with the PCR owning community and in presence of the social specialist and the technical specialist/engineer.
- Consider providing a barrier/boundary between the PCR and the infrastructure where appropriate and acceptable to the community.
- Where agreeable or appropriate create alternate access for the PCR. However, this must be through a consultative process for PCR owning community and other stakeholders of the area.

SITUATION-4

Increased disturbance, due to location to the PCR site from scheme during construction or operation of scheme.

POSSIBLE MANAGEMENT ACTIONS

- Identify ways to minimise disturbance to the area, such as construction of boundaries and entrance gate to the infrastructure site.
- Identify activity and plan site to ensure minimal disturbance – such as location of backup power system and generators to be as far away from the PCR, and any power lines for the system planned should not cross above the PCR.
- Ensure any waste storage or other material storage site is not near the PCR.

SITUATION-5

Long term degradation from waterlogging or waste storage sites.

POSSIBLE MANAGEMENT ACTIONS

- Provide appropriate drainage for all infrastructure sites that may be in proximity to PCRs, including identification of final disposal site. This is also to be considered for backwash water, where it is not being recycled.
- Ensure any waste storage or other material storage site is not near the PCR and design system for regular disposal of waste to minimize impacts.

SITUATION-6

Future expansion of infrastructure resulting in encroaching upon, reducing integrity of PCR in the vicinity.

POSSIBLE MANAGEMENT ACTIONS

- Create a boundary wall to minimize encroachment upon the site.

5.2. Impacts on PCRs During Construction

SITUATION-1

Chance finds

POSSIBLE MANAGEMENT ACTIONS

- Work with construction contractor to make aware and include in construction contract PCR identification procedure – as chance findings.
- Stop all work and cordon off area and do not allow anybody access to the area, unless cleared by the District Magistrate or Commissioner as the case might be and the Archaeological Department.
- Based on discussions with the competent authorities identify further action
- Actions at the site may require competent professionals who may need to be contacted and brought in, as needed.

SITUATION-2

Damage to PCR during construction

POSSIBLE MANAGEMENT ACTIONS

- To the extent possible avoid undertaking any activity, including using area around the PCR as a thoroughfare for any construction activities.
- Identify actions and clauses for areas where construction may be at or adjoining PCR sites, in consultation with the community owning the PCR. Make these a part of the construction contract clauses.
- Train/make aware the construction contractor of how to deal with these sites, and ensure that there is supervision from contractors' side for the management of all such sites.
- Restore all sites to their original shape post construction.
- In case despite all measure's damages occur, work with the community to identify rehabilitation of the PCR.
- It is advisable to take photographs, measurements etc. of the PCR if working in the same location, in case it needed for future reference while restoring the site.

SITUATION-3

Disturbance from labour camp

POSSIBLE MANAGEMENT ACTIONS

- Ensure that labour camps are not located near PCRs
- Provide water, sanitation and cooking fuel etc. need at the labour camp
- Identify rules for labour camps, make the people residing in them and monitor to ensue that any PCR in the area is not disturbed.
- Post construction, rehabilitate the camp site.

SITUATION-4

Disturbance from construction site

POSSIBLE MANAGEMENT ACTIONS

- Identify most appropriate time to undertake construction to minimise disturbance, e.g. avoid any special prayers/festivals for constructing in the vicinity of the PCR or on its access route.
- Ensure there are adequate sanitation facilities and potable water for labour at the construction site, and as required resting areas, to ensue they do not need to go outside the site for anything.
- Avoid keeping power back up systems such as generators near the PCR site, if construction is in the vicinity.

SITUATION-5

Waste disposal/storage during construction damaging PCR

POSSIBLE MANAGEMENT ACTIONS

- Identify appropriate sites for waste storage and disposal of any waste for drainage in consultation with the maps prepared during the PCR screening to avoid these areas.
- In case of any unintended damage, rectify at the earliest.

SITUATION-6

Material storage at the site

POSSIBLE MANAGEMENT ACTIONS

- Identify appropriate sites for material storage in consultation with the maps prepared during the PCR screening to avoid these areas.

5.3. Impacts on PCRs During Scheme Operation and Maintenance

SITUATION-1

Waste storage or disposal at the PCR site or obstructing access to it.

POSSIBLE MANAGEMENT ACTIONS

- Ensure that waste is stored and disposed according to plan developed at the time of the scheme design.
- In case, due to some unforeseen circumstances the plan proves to be inadequate, develop a new plan and new waste disposal schedules to minimise problems.
- Where required identify alternate waste storage sites at the location of some of the existing scheme infrastructure.

• SITUATION-2

Backwash water or drainage water flowing into the PCR site or obstructing access to it.

• POSSIBLE MANAGEMENT ACTIONS

- Alter the portion of the system to ensure that the backwash or drainage system does not flow into the area.

SITUATION-3

System breakage, especially at locations under the PCR

POSSIBLE MANAGEMENT ACTIONS

- Undertaken repair work at the earliest.
- Identify with the community to whom the PCR belongs to, most appropriate way to tackle repair work.
- Based upon the discussions and methods actions agreed upon, undertake the repair work.
- Where possible request for a member of the community to whom the PCR belongs, and with required authority, to be available at the time the repair is being undertaken to ensure any issues that may arise at the time of repairs are discussed and addressed immediately.
- Try to complete work at all such sites in the minimum time and therefore plan for all labour, material etc. in advance to ensure all is available at the time of the work.
- Avoid any material storage or waste disposal near or at the site.
- Ensure that once the repair work is completed all areas are cleaned and restored.

SITUATION-4

Disturbance from day-to-day maintenance and operations such as goods vehicles transporting waste or material to site.

POSSIBLE MANAGEMENT ACTIONS

- Identify appropriate timing for vehicle movement or loading or unloading activities to the extent possible to avoid such times.
- Where unavoidable, try and keep away from the PCR location and minimize noise and traffic at the site.

NEER NIRMAL PARIYOJANA PHYSICAL AND CULTURAL RESOURCE IDENTIFICATION SCREENING FORMAT

This screening format is to identify all Physical and Cultural Resources (PCRs) for every scheme under the Neer Nirmal Pariyojana, and includes both Category 1 and Category 2 schemes.

SECTION 1

DEFINITION AND INSTRUCTIONS

Part A

Defining a PCR: According to the World Bank Operational Policy 4.11,

“Physical and Cultural Resources are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings, and may be above or below ground, or under water. Their cultural interest may be at the local, provincial or national level, or within the international community.”

Part B

In order to identify PCRs under the project, there is a need for a consultation process with the community where the infrastructure and its related facilities/activities is to be developed or take place. The team that undertakes the consultation must include,

1. DPMU Environment Specialist
2. DPMU Social Specialist
3. DPMU Technical Specialists
4. JE and AE or area under whose jurisdiction the scheme is located.

Part C

In order to ensure a comprehensive consultation that is able to identify all PCRs in the project the team conducting the consultation should have all relevant details on the scheme, documents such as the DPR, drawings and maps of layout planned and location of various scheme components. This consultation must cover,

1. Number and kinds of PCR likely to be impacted by the scheme
2. The location, use and significance of these PCR/s
3. Possible nature and magnitude of the impacts
4. Suggestions of the community on ways to address possible scheme impacts on the PCR/s
5. Consensus and agreement amongst community in case there is a need to shift, modify or realign the PCR/s or their sites.
6. This consultation should be recorded to ensure that all issues identified are adequately addressed in the project.

SECTION 2

SCREENING FORMAT

Part A

State:

Block/Taluk:

District:

Scheme Name (if any):

Scheme ID (if any):

Type of Scheme (Tick the appropriate option and sub-option)

<input type="checkbox"/>	<i>SINGLE VILLAGE SCHEMES (SVS)</i>	<input type="checkbox"/>	<i>MULTI-VILLAGE SCHEMES (MVS)</i>
<input type="checkbox"/>	Single GP Scheme	<input type="checkbox"/>	Large Multi-village Scheme (>5 GPs)
<input type="checkbox"/>	Single Village Schemes	<input type="checkbox"/>	Small Multi-village schemes (1-5 GPs)
<input type="checkbox"/>	Single Habitation Scheme		
<input type="checkbox"/>	Ward Level Scheme		

Coverage

	Number	Name(s)*
GPs		
Habitations		
Wards		

*Attach separate list if the number is more than 5

Important Scheme Components (Tick all applicable):

<input type="checkbox"/>	Intake: Floating Barge & pump	<input type="checkbox"/>	Pump house(s)	<input type="checkbox"/>	Distribution Network
<input type="checkbox"/>	Intake: Intake well and pump	<input type="checkbox"/>	Raw water pipeline	<input type="checkbox"/>	Booster pumphouse
<input type="checkbox"/>	Multiple HYDTs	<input type="checkbox"/>	Water Treatment Plant	<input type="checkbox"/>	Single ESR
<input type="checkbox"/>	Single HYDT	<input type="checkbox"/>	Distribution main	<input type="checkbox"/>	Multiple ESR(s)

Environmental Category of Scheme (Category 1 or 2):

Completion stage of scheme: Completed Under construction Under preparation

Part B

Has the consultation process with stakeholders residing in areas where the project infrastructure is being constructed or where any waste from the project is being disposed, been undertaken? If yes, has the consultation included a discussion on PCRs? (These PCRs could include waterbodies, trees or other fauna or flora, rocks or other physical and landscape locations, graves or burial sites etc., as defined in Section 1 of this format).	YES	NO
	<input type="checkbox"/>	<input type="checkbox"/>

If YES, please proceed to Part C. If not, first please complete the consultation process on the PCR, and then fill rest of the format.

Scheme Name (if applicable):

Scheme ID (if applicable):

PCR no:

Part C

How many PCRs have been identified in the vicinity of the scheme (give number)?

Is any of the identified PCRs impacted or likely to be impacted either directly or indirectly by the scheme or any of its constituent components?	YES	NO
	<input type="checkbox"/>	<input type="checkbox"/>

If YES, please continue, if NO, you do not need to fill the rest of the format.

If yes, how many? (give number)?

If one, complete sections D and E you only need to complete this format once.

If more than one,

- (i) Make multiple copies of Sections D and E formats and fill separate copies for each affected PCR, and*
- (ii) Number each PCR separately to ensure unique identification and attach all formats together as one document.*

Scheme Name (if applicable):

Scheme ID (if applicable):

PCR no:

Part D

1. In case of multiple PCRs, enter serial number of the current PCR here

2. PCR location: Please indicate the location of this PCR on a map, drawing or sketch of scheme layout. Also mention the exact name of the area where the PCR is located and provide GPS coordinates where possible.

Please describe location:

Please provide location of all PCRs of the scheme on a strip plan and attach it to this document.

3. Nature/type of PCR:

4. Name of community/group using or owning the PCR belongs to:

5. What is the significance and utility of PCR? Please describe briefly,

6. Is the PCR protected under any regulation, either state or national?

YES

NO

7. If yes, please give details of regulation.

Scheme Name (if applicable):

Scheme ID (if applicable):

PCR no:

Part E

Impact of this scheme on the PCR

YES

NO

1. Is any part of the scheme infrastructure built or proposed to be built at the site of the PCR? YES NO

2. Is any part of the scheme infrastructure being constructed or is likely to be constructed near or in the vicinity of the PCR?
If yes, please given distance in meters: YES NO

3. Is any part of the scheme infrastructure or construction or O&M activity obstructing access to, reducing the significance of, or damaging community sentiments in context of the PCR?
If yes, please describe the issue YES NO

4. Is any waste from the project being discharged or likely to be discharged into the area constituting or adjoining the PCR?
If (likely) discharge is near the PCR, please provide distance in meters and describe in detail how it impacts the PCR. YES NO

5. During construction, is any land to be acquired next to or on the PCR site for any activity, such as labour camp or facilities or material storage?
If yes, please provide details. YES NO

6. Any other kind(s) of direct or indirect impact(s) [please describe in detail, add additional sheets if required] YES NO

7. Is the community agreeable to shifting / modification / realignment of the PCR site for facilitating scheme construction as per feedback from consultation? In either case, please attach relevant extract of minutes of consultation or valid document from authorized community representative / competent authority agreeing to shifting / modification / realignment of corresponding PCR site YES NO