Shivam Jaibik Khad Tatha Urja Pvt. Ltd. Jagarnathpur RM -3, Parsa

Environmental and Social Impact:

The purpose of this checklist is to identify potential environment and social issues related to subproject.

(A) Project Background

1.	Name of Proposed Project	Waste to Energy Large Scale Biogas Subproject		
2.	Subproject Location	Jagarnathpur Rural Municipality – 3, Parsa, Madesh Province Coordinates: [27 ^o 8' 56.30" N, 84 ^o 42' 5.31" E]		
3.	Subproject objectives	CNG and Fertilizer production		
4.	Subproject Developer	Shivam Jaibik Khad Tatha Urja Pvt. Ltd.		
5.	Contact Details	Name: Dilip Sharma Phon: 9855036664 Email:		
6.	Brief description of the subproject	The subproject will be Continuous Stirred Tank Reactor (CSTR) based biogas plant for the efficient production of biogas through the continuous digestion of organic waste with an anaerobic digester.		
		The organic material such as agricultural waste, animal waste (cow dung, Poultry) manure, and plants material etc. will be used as feedstock in the subproject.		
		This subproject aims to establish through the technical and financial support of GoN (AEPC) and World Bank to establish a sustainable and circular economy where organic waste is transformed into valuable energy and agricultural inputs, promoting environmental, social, and economic sustainability and resource efficiency.		
7.	Define project's boundaries and area of influence	Area of Influence Gadhaiya village E: Bijbaniya Village (approx. 800 m) W: Pandepur village (approx. 500 m) S: Gadhaiya Village(approx. 200 m) N: Gadhaiya Village (approx. 100 m)		
8.	Capacity or size of the subproject	5500 m ³		
9.	Relevant E&S national requirements (assessment, threshold limits etc.)	Preparation and approval of Initial Environmental Examination (IEE) has been completed		
10.	Relevant E&S required as per ESMF of MGEAp and World Bank	Environmental and Social Impact Assessment (ESIA)		
11.	Total Project Cost	18, 69, 00,000 (Approx.)		

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(B) Social Screening Checklist

Potenti	Potential Social Impacts					
SN	Screening Questions	Yes	No	Comments (Provide information)		
1.	Permanent land acquisition	✓		The proposed land for the subproject is privately owned, and the total area allocated for the biogas subproject development is approximately 2 Bigha and 4 Katha. The land is fenced with a permanent wall on all sides. As it is agricultural land, the developer has been cultivating seasonal crops on it. During the field visit on June 24, 2024, the proposed land was found to be partially cultivated with sugarcane, and the rest was left barren.		
2.	Temporary land acquisition		✓	Not required as the developer's private land is sufficient than required for the development of subproject		
3.	Type of land Private land Public land Government land Leasehold land	√		The proposed site for the subproject development is implemented in private land and it is in the name of Ashok Yadav, who is one of board member of Shivam Jaibik Khad Tatha Urja Pvt. Ltd. The company has leased the land from Ashok Yadav (Annex-I)		
4.	Type of land procurement Voluntary donation Involuntary acquisition Negotiation			The company has leased the land from one of its shareholders, Ashok Yadav, for a period of 20 years.		
5.	Loss of productive land	✓		The company has allocated more than 2.4 Bigha of land for the biogas subproject. Due to the intervention of the subproject, there will be a loss of productive land. However, since these land parcels were taken on lease from one of the shareholders of the company, the impact is not anticipated to be significant.		
6.	Impacts on livelihoods/ economic displacement?		✓	The land is lease @ Rs. 2500.00 per katha per year. Thus impacts on livelihood is not envisioned.		
7.	Impacts on ecosystem services for local communities (e.g. fishing)?		✓	As the land is private, there will be not be impact on ecosystems services for local.		
8.	Is there any household need to be relocated?		✓	Due to the intervention of the subproject, no households will need to be relocated.		

		·	Jagarnatnpur KNI -3, Parsa
9.	Is the resettlement site environmentally and/or culturally sensitive?	✓	There is no need for resettlement.
10.	Project's construction will cause any damage to the existing local roads system.	✓	Accessible vai earthen road which is accessible throughout the year. The developer of the subproject is committed for the maintenance of the road, if any damages caused due subproject activities.
11.	Will project activities have adverse impact on school, drinking water supply system, other facilities?	✓	There is no drinking water supply or irrigation exist in the proposed subproject area. The nearest school (Shree Baba Baidhanatha Basic School) from the subproject site is approx. 800 km away.
12.	Will project need to use existing or open new access roads? What will be the impacts of increased traffic on communities?	✓	The subproject area has road access and does not require to open new access road. Dust and noise related impacts are envisioned which can affect the villagers due to the increased traffic during the transportation of construction materials to the subproject site. Thus, it recommended to prepare transport management plan after assessing the impacts during the ESIA study.
13.	Will project cause encroachment on historical/cultural/religious areas?	✓	There are no historical, cultural and religious area within a radius of 800 meters radius from the proposed subproject site. Thus the subproject activities will not impact these places.
14.	Acquisition of private land leading to loss of shelter and livelihood	✓	The land used for the subproject will not result in any loss of shelter or livelihood.
15.	Involuntary land taking resulting in loss of income, livelihood, sources of livelihood, loss of access to common property resources and/or private residential and/or property resources	✓	The proposed subproject will be implemented inside developer's private land. There will be no involuntary land acquisition for the subproject.
16.	Possible conflicts with and/or disruption to local communities	✓	As the subproject site needs to be accessed via an existing road passing through Villages, community members may have concerns regarding dust and noise from the transportation of construction materials to the site. Therefore, it is recommended to conduct an Environmental and Social Impact Assessment (ESIA) for further assessment. Apart from this, other conflicts to local communities is not envisioned.
17.	Is there a possibility of activities supported by the project that have impacts on	✓	There is not any waterways/rivers in the vicinity of subproject area, so there will be no impact on

		1	1	Jagarnathpur RM -3, Parsa
	international waterways? If yes, what are the potential impacts?			international waterways.
18.	Is the project site located in disputed territory?		√	The land required for the subproject development is private land. The subproject is not located in disputed territory.
19.	Uncontrolled human migration into the area, made possibly by the subproject activities		✓	During the construction period of the subproject, approximately 40-50 labours will be employed daily for about 6-7 months. Community members have expressed their happiness knowing they will have short-term employment opportunities coming near their villages. Additionally, the developer is willing to hire labours/staff based on their interest and qualifications from nearby communities that ensure there will be no uncontrolled human migration into the subproject area. However few skilled workers who are not available locally will be hired from outside from the community.
20.	Disproportionate impacts on the poor, children and other vulnerable groups		✓	As the subproject is carried out within the confined area of private land of developer. The impacts on livelihood and private assets of community people is not anticipated. However ESIA is recommended to carry out to assess further details impacts.
21.	Community health and safety risks due to the transport, storage, and use and/or disposal of materials likely to create physical, chemical and biological hazards		✓	The subproject area has road access. Dust and noise related impacts are envisioned which can affect the villagers, due to the increased traffic during the transportation of construction materials to the subproject site. However risk of Community health and safety to community due to the storage and disposal of material will not be as all these activities will be within private land of developer.
22.	Will the project potentially cause community-related impact due to temporary influx of labor?		✓	As per discussion with the developer, people from surrounding villages from the subproject site will be given priority for employment opportunities based on their skills, qualification, and availability of the preferred workforce in subproject area. It is expected that mostly the unskilled workforce will be employed from the local area as far as available which ensure negligible impact to community due to temporary labor influx. ESIA is recommended to assess the impact in detail.
23.	Are there Vulnerable Groups (Adibasi/Janajati/Dalit/Women headed households residing within or adjacent to	✓		The subproject site is located about 100 m away from the nearest village, Gadhaiya. People from different caste and ethnicities reside in the

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	project site?	village. The majority of the residents belong to the Yadav, Das, and Chamar caste.
24.	Community Perception toward project	During the consultation with community people of Gadhiya, people were found positive towards the subproject development. Additionally they have few expectations from the subproject; • Subsidies fertilizer for the farmers • If any odor or pollution created by subproject during the operation, then the company is responsible to manage and mitigate the odor & pollution produced. • Employment opportunity during construction and operation phase • The company needs to consider the safety and health of community that could potentially cause due to the development activities of subproject.

(C) Environmental setting of the project locality

Is the project located in forest area or close to forest			No☑
If Yes,			
Name of forest			
Management regime			
Does vegetation need to be			
Removed for the project? Give estimate?			
Permission to operate in the			
forest?			
Is the project located in the protected area or a	any protected area in	Yes	No☑
Vicinity			-
Is yes, please provide details on			
(a)name of PA			

(b)area to be acquired					70
(c)distance to PA from the					
Project site					
(d)access from the project tothe					
PA					
1. Water sources/water bodies					
Area there any water sources/water b	odies in and	around the)	Yes	No☑
Project site					
,					
If yes provide details on					
Location/Type					
Use of water					
Potential impact by the project					
2. Air pollution					
Number and type of vehicles to be usedper day		3, most	ly for transporting	g substrate	from various locations
Capacity of vehicles		10 – 15	tons		
Condition of the road (asphalted,		Good. Pakadi to Pipra Road 200m from highway			
earthen)		Oood. I akadi to I ipia Road 20011 IIolii iligiiway			
3. Land use					
Land required for the project and typ 12.43 Bighas; currently owned by on					
		•			
Facilities	Required A	rea	Land use type	Location	on
(1) D: Di .	12 Katha (4	12710	Private	Icar	oothomus DM 2 Dassa
() (Private		nathapur RM-3, Parsa,
	Square fee	ι)		iviades	sh Province.

4. Impact due to land use change				
a)Loss of private land:Yes b) Loss of agricultural product: Seasonal Crop (Paddy, wheat, Sugarcane, Red lentils etc) c)Loss of private structures/community structures: No d) Loss of Forest and vegetation: No e)others: No				
5. Waste input for the project				
Define waste (type)	Press mud, and Cattle Manure			
Quantity of waste	65 tons per day			
Location of collection	Nawalparasi, Rupandehi			
Workers involved 14 (1 plant manager, 1 electrical engineer, 1 mechanical engineer, 1 marketing manager, 1 admin manager, 2 operators and 7 skilled workers)				
Legal clearance required No				
6. Technology				
Туре	CSTR			
Capacity	Digester Volume: Total 4,000 cu.m (Nos. 2)			
Gas production	Gas production: 2400 m³ per day			
Slurry production Slurry Production: 135 tonnes per day				
7. Waste from the project implementation Yes No				
Generation of solid waste? If yes,			☑	
Are any wastes required to be stored on-site either for reuse or off-site disposal? Ifyes,				
Are effluents required to be discharged to a sewer or combined drainage system? If yes,				

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8. Health and Safety Issues	Yes	No	
a. Does project intervention affect health and safety condition?			
b. List out likely health and safety issues during construction period			
 Construction related accidents 			
 Emissions of dust and noise pollution 			
c. List out likely health and safety issues during implementation period			
 Handling of slurry (with pathogens) 			
Effluence from substrate store			
Vehicle emissions from transport of slurry A saidente associated with fixing and appleading			
 Accidents associated with firing and explosion Spreading of diseases due to increased disease vectors, flies, 			
mosquitoes etc.			
COVID-19 infection			
9. Other observations			
Can vector disease spread to the No			
adjoining settlements?			
Can foul odor affect the adjoining No settlement?			
Slurry use(proposed) Organic fertilizer			
Climate Benefits			
Will project activities contribute in the			
reduction of GHG emissions?			
Description on the activities that			

D) Conclusion

E&S Risk Category of the Subproject (High,	Select one of the following based on the guidance provided
Medium, Low):	below.
	() High-risk : Subprojects that is likely to have significant adverse environmental and/or social impacts that are sensitive, diverse, or unprecedented. These impacts may affect an area broader than the sites or facilities subject to physical works. Any subproject that needs an EIA according to GoN regulations shall be classified as high risk.
	(✓) Medium Risk : Subprojects that involve potential adverse

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	environmental or social impacts on human populations or
	environmentally important areas-including wetlands, forests,
	grasslands and other natural habitats-are less adverse than those of
	high risk projects. These impacts are site-specific, reversible; and
	in most cases mitigation measures can be designed more readily
	than for high risk projects. Moreover, a proposed subproject is
	classified as medium risk that displaces less than 50 families in
	the mountain region, less than 75 families in the hills, and less
	than 100 families in the Terai plains due to involuntary land
	acquisition (unless such impacts are, in the judgement of AEPC,
	are exacerbated by other contributing factors). A project can be
	classified as medium risk regardless of whether it needs IEE as
	per GoN regulations.
	() Low Risk: Subprojects that likely to have minimal or no
	adverse environmental and social impacts. Moreover, a proposed
	subproject does not displace any family and none of affected
	person loses more than 10% of their productive assets.
Main reasons/justification for the selection of E&S	Subprojects will have minimal or no adverse environmental and
risk category above	social impacts. Further, the proposed subproject does not displace
	any family and community people and they will not lose their
	productive assets. However, the subproject is classified as
	Medium Risk as per the capacity, IEE required to be done in
	accordance of GoN regulations. Therefore, as provisioned of
	ESMF of MGEAP, a subproject which is classified as Medium
	Risk needs to undergo an ESIA. Thus, it is recommended to carry
	out the ESIA to assess further risk associated with the subproject.
E&S Instruments to be prepared for the Subproject	Recommended to carry out ESIA and prepare ESMP
(ESIA, ESMP, RAP, Biodiversity Management Plan,	
OHS plan, Cultural Heritage Management Plan etc)	
Beneficial impacts and augmentation opportunities	Cheap Availability of fertilizer
for any issues? Etc.	Creation of short term employment during the
	construction and operation phase of subproject
	Increase the prospect of energy based enterprises
The outcome of screening summarizing entire table's	The subproject will be Continuous Stirred Tank Reactor (CSTR)
information with assessor's candid opinion on way	based biogas plant for the efficient production of biogas through
forward and future actions limiting in one paragraph.	the continuous digestion of organic waste with an anaerobic
	digester. Organic material such as agricultural waste, animal
	waste (cow dung, Poultry), manure, press mud, and plants material etc. will be used as feedstock in the subproject.
	The subproject is accessible throughout the year and does not

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require to construct separate access road. Similarly, the project will be constructed on private land owned by subproject developer and does not require to obtaining land from community people. Furthermore, the subproject will not require for the relocation of people and any infrastructure.

In addition, subproject is not located in ecologically sensitive area.

Thus, based on the field observation the impact on environmental and social aspects due to the implementation of the subproject is seems negligible. However, as per the subproject is categorized as **Medium Risk**. Thus, the study team recommends to conduct ESIA to identify the potential risk and its mitigations measures in comprehensive way before the commencement of construction.

E&S Screening Team

- 1. Shreejan Ram Shrestha, Climate and Carbon Specialist AEPC/MGEAP
- 2. Shiva Hari Budhathoki Social Safeguard Specialist AEPC/MGEAP

Annex 1: Subproject area google map (Jagarnathpur Rural Municipality-3)



Annex 2: Proposed land for the development of biogas Subproject by Shivam Jaibik Khad Tatha Urja Pvt.





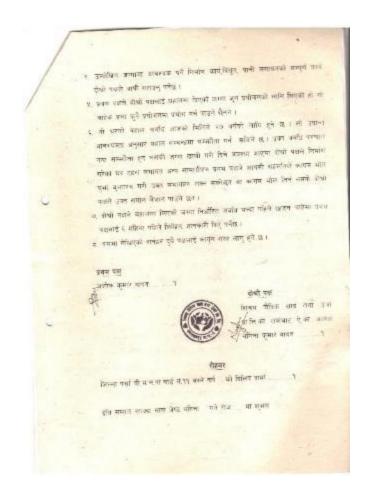


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Earthen access road to reach the subproject site

Annex 4: Land Leased Document

बहालनामाको कागज वेतकी राजन ऑहरको नाति, अंकर राजन ऑहरको छोरा जिल्ला पसा गा,जि.स. विजयनिया यहा न. ७ परिवर्तित भई कायम ऐ जगरनाथपुर गाउपालिका यहा न ३ बस्ते वर्ष ... को ला प्रयम ३४९०९९ १०६ जारी मिति ०६६ ०३ ९४-पसी अजीव कमार यादव जसलाई यस बहालनामाको काराजमा प्रथम पक्ष भानएको छ । जिल्ला पर्सा जगरनावपुर गाउपानिका वडा म ३ स्थित शिवम जैविक साद तथा उजा प्रांति । प्रांति न २४८६२०-०७५ ७६। को तफंबाट ऐ का अध्यक्ष नीगना कमार यादव जसलाई यस बहालनामाको काराजमा दोश्रो पश भनिएको छ । आगे म प्रथम पश्चको नाउ दत्तां हरूभोगको जिल्ला पसा गावि स. जानकीटोला वडा न ७ परिवर्तित नई कायम ऐ जगरनाथपुर नाउपालिका वडा में, २ को कि.न. २९२ को जांच ०-१४-० जग्गा दोधो पक्ष भाडामा निर्दे शिवम नैविक साद तदा उन पालि को कारोबार सञ्जालन गर्नका लागि भाडामा दिन तपाई दोखो पक्षाने माग गरेकीमा तप्रमिलमा उल्लेखित शर्तारख्यो अधिनमा रही म प्रथम प्रधा मी जरगा नाहामा दिन सहमत भएकोले दुवै पक्षको आपसी सहमतीले उल्लेखित जग्गा भाडामा निग दिन पजुर भई धी बहाननामाको काराज लेखि नेखाई सही छाप गरी एक एक प्रति निधी दियों साधी रोहनरको १ उल्लेखिन जग्याको बहान प्रांत कठा प्रति वर्ष र २५००, ०० - (दुई हजार साथ सप मात्रः निर्धारित गरियो । सो बहाल रकममा प्रत्येक वर्ष मा मृत बहाल रकमामा १०% से बढ़ि हरोड़ । २ सो भाडा दोधो पक्षले प्रथम प्रवालाई महिलाको ५ गते थिए बुकाईन पर्ने छ । 1. वहाल वापत लाले कर दोश्री एस कम्पनी स्वयते युकाइ सो को निस्सा प्रथम प्रथमाद दिन पर्ने छ ।



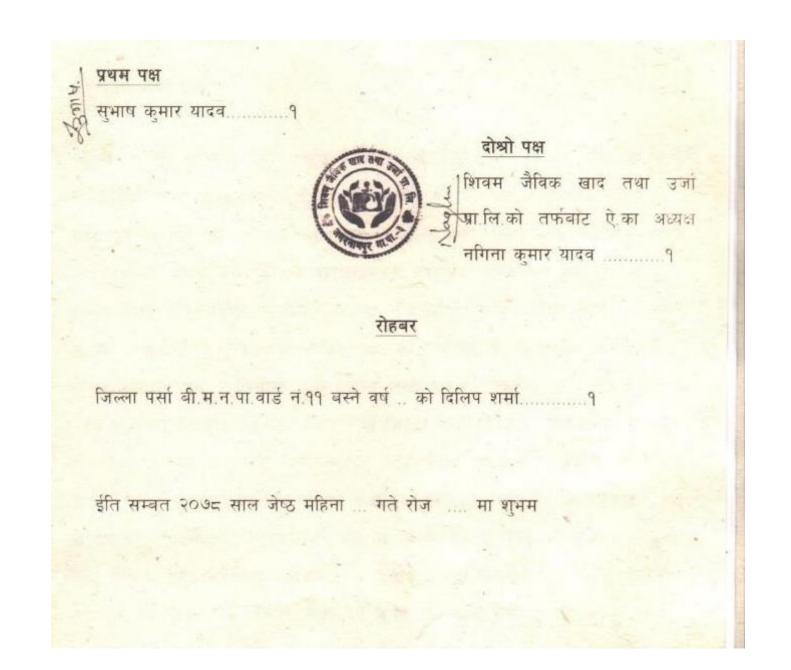
बहासनामाको काराज

शर्तहरू

विजवनिया बहा न. ७ परिवर्तित गई कायम ऐ, जगरनावपुर माउपानिका बहा स बस्ने वर्षे २८ को ता.प प.न.३४-०१-६९-०२८७९ जारी मिती २०६९०००७ -पर्गा अभाय कुमार यादव जसलाई यस बहालनामाको काराजमा प्रथम पक्ष मनिएको छ । जिल्ला पर्सा जगरनाथपुर गाउपालिका वहा तं.३ स्थित शिवम जैविक खाद तथा उजा मानि । प्रानि, ने २४८८२०-०७७ ७८। को तर्फबाट ऐका अध्यक्ष नीमना कुमार आदव जसलाई यस बहालनामाको कागजमा दोखो पक्ष भनिएको छ । ैं आगे म प्रथम पक्षको नाउ दर्ता हकभोगको जिल्ला पसा गावि.स. विजवनिया वडा न ७ परिवर्तित भई कायम ए जगरनाथपुर गाउपानिका वडा न ३ कि.न २०४ छ। ज वि ०-७-९०, र जिल्ला पसा गाविस जानकीटोला वडा ते ७ परिवर्तित मह कायम ऐ. जगरनाथपुर गाउपालिका वहा म. २ ऐ. कि.मं. १९१ को अ.बि. ०-९-४ तका जिल्ला पर्सा मा वि.सं. जानकीटोला बडा न ७ परिवर्तित भट्ट एं, जगरनाथपर गाउपालिका वडा न २ कि नं २७५ को जाबि ०-७-४ समेत जन्मा जावि १-४- जन्मा दोश्रो पक्ष ग्राहामा लिई शिवम जैविक खाद तथा उना प्रालि को कारोबार संचालन गर्नका लागि भाडामा दिन तपाई दीश्री पश्चले भाग गरेकोमा तपस्थिमा उन्लेखिन शतंहरुको अधिनमा रही म प्रवम पक्ष सी अग्गा भाडामा दिन सहमत भएकोले दुवै पदका आपनी सहमतीलें उल्लेखित जग्गा भाडामा लिन दिन मजूर भड़ यो बहाननामाको काग 🗷 लेखि नेखाई सही खुप गरी एक एक प्रति नियो दियाँ खोदी रोहंबरको सदर।

रेडकी राउत अहरको नाति, शंकर राउत बहिरको छोरा जिल्ला पसी गाविस

- उल्लेखित जग्गाको बहाल प्रति कठा प्रति वर्ष रु २४,००/०० । दुई हजार पाच मध्य मात्र। निर्धारित गरियो । सो बहाल रकममा प्रत्येक वर्ष मा मुल बहाल रकमामा १०% ले बढि हलेछ ।
- २. सो भाडा दोश्रो पक्षले प्रथम पक्षलाई महिनाको ५ गते भित्र बुकाईन पर्ने छ ।
- वहाल वापत लाग्ने कर दोश्रो पक्ष कम्पनी स्वयंने बुकाइ सो को निस्सा प्रथम पक्षलाई दिन पर्ने छ ।
- उल्लेखित जम्मामा आवश्यक पर्ने निर्माण कार्य,विधृत, पानी लगायतको सम्पूर्ण कार्य दोश्रो पक्षले आफी गराउन पर्नेछ ।
- प्रथम पक्षले दोश्रो पक्षलाई बहालमा दिएको जन्मा जुन प्रयोजनको लागि लिएको हो सो बाहेक अन्य कृतै प्रयोजनमा प्रयोग गर्न पाउने छैनन ।'
- ६ यो घरको बहाल अबधि आजको मितिले २० वर्षको लागि हुनै छ । सो उपान्त आवश्यक्ता अनुसार बहाल सम्बन्धमा सम्भौता गर्न सिकने छ । उक्त अबधि पश्चात नया सम्भौता हुन नसकी जग्गा खाली गरी दिने अवस्था आएमा दोश्रो पक्षले निर्माण गरेका घर टहरा लगायत अन्य सामाग्रीहरू प्रथम पक्षले आपसी सहमितिले कायम मोल बुक्त बुक्तारथ गरी उक्त समानहरू राख्न सक्तेछ्वन वा कायम मोल तिर्न नसके दोश्रा पक्षले उक्त समान लैजान पाउने छन ।
- दोश्रो पक्षले बहालमा लिएकी जग्गा निर्धारित अवधि भन्दा पहिले छाडन चाहेमा प्रथम पक्षलाई ६ महिना पहिले लिखित जानकारी दिनु पर्नेछ ।
- 🗸 यसमा लेखिएको शतंहरु दुवै पक्षलाई कानुन सरह लागु हुने छ ।



Shivam Jaibik Khad Tatha Urja Pvt. Ltd. Jagarnathpur RM -3, Parsa

Annex 5: IEE approval letter received from Provincial Ministry of Industry, Tourism and Forest

