

Social Compliance Audit Report

Project Number: 46919
March 2013

IND: 75 MW Wind Farm Project, Chilarewadi, Maharashtra

Prepared by AECOM India Private Limited for NSL Renewable Power Private Limited

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Asian Development Bank

Report on Social Safeguards Compliance

75 MW Wind Farm Project, Chilarewadi, Maharashtra, India

March, 2013



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1. INTRODUCTION

NSL Renewable Power Private Limited (NRPPL) is a fully owned subsidiary of NSL Power Private Limited is a leading renewable power developer in India. The company has 180 MW operational projects (148 MW in wind, 20 MW in solar, and 12 MW in biomass), 340 MW of projects under construction or advanced development (155 MW in hydro and 185 MW in wind), and 555 MW of wind projects at land acquisition and development stage. NRPPL intends to have a well-diversified portfolio of more than 1,000MW operational renewable power assets by 2015. NRPPL is seeking financial assistance from the Asian Development Bank (ADB) in the form of equity injection in 175 MW of projects under construction or advanced development: (i) the 100 MW hydro power project in Tidong (Himachal Pradesh) and (ii) the 75 MW wind power project in Chilarwadi (Maharashtra). The assistance may involve the funding of other sub-projects developed by NRPPL to be identified at a later stage.

1.1 Project Description

NRPPL intends to set up the proposed wind power project of 75 MW at Chilarewadi in Man Taluka of Satara District in Maharashtra State. In order to ensure close monitoring and execution of the project, a Special Purpose Vehicle (SPV) has been created which is known as NSL Wind Power Company (Satara) Private Limited. The project area falls in three villages viz. Chilarewadi, Puklewadi and Virli. The wind farm will be located on a table top plateau at an elevation of 890-905m above mean sea level (MSL) in a total area of 78.10 hectares (ha). The project shall comprise of the following components:

- a) A total of 50 wind turbine generators (WTGs) of ReGen make (V82 model) with 1.5 MW rated capacity.
- b) A 33/220 kV Pooling Substation located at Hiwarwadi village to the west of the site for evacuation of power from the wind farm.
- c) About 3-4 km long single/ double circuit 33kV transmission lines for transmitting the power upto pooling substation.
- d) Three 33kV feeders, each with capacity of 25MW for transmitting the power upto pooling substation.
- e) Two approach roads, with length of 3km each for accessing the wind turbine locations.
- f) About 24km of internal roads for access to each turbine location and associated facilities within the wind farm area.

The supply, erection and commissioning of the wind turbines will be carried out by M/s ReGen Powertech Private Limited. The operation and maintenance (O&M) of the project will also be undertaken by ReGen Powertech through an O&M agreement which entrusts them with responsibility of maintenance and repairs.

As compared to conventional sources of power (thermal power plants) which have very high environmental costs, wind power generation is one of the cleanest and environment friendly

methods of power generation. The O&M of wind farms does not typically involve air emissions or effluent discharges. There is no fuel requirements or large quantities of water for operation of the plant, hence they do not impart negative irreversible impacts on the environment. The gestation time required for thermal power plants are much longer than that of wind power plant which requires short lead time to design, install, and start up.

There are no green house gas emissions and other environmental pollution (stack emissions, ash management, etc associated with wind power projects. There are socio-economic advantages of wind power projects as the un-productive land is put to use for power generation and the setting up of project benefit the local community by way of employment and other welfare activity. In addition the local administration will be benefited by way of appropriate taxes and other revenues.

1.2 Objectives and Scope of Audit

The proposed assistance to NRPPL involves (i) existing facilities and/or business activities that already exist and will form part of the future Project proposed for ADB financing, and (ii) use of land or sites that have been acquired prior to ADB consideration of the Project and requires a Social Safeguards Compliance Audit in line with the 2009 ADB Safeguards Policy Statement (SPS) Safeguards Requirements 4 covering Special Requirements for Different Finance Modalities (SPS, SR 4, para 12)¹. In this context M/s AECOM consultants have conducted the above Social Safeguards Compliance Audit for Chilarewadi Wind Project.

The primary objective of the audit is to determine whether actions related to the project were in accordance with ADB SPS and SR 2-3 and to identify and plan appropriate measures to address outstanding compliance issues. The main aims of the audit are to:

- (i) Identify past or present concerns related to impacts on the project affected people.
- (ii) determine whether actions were in accordance with ADB's SR2 and SR3 principles and requirements and;
- (iii) prepare a corrective action plan (CAP) containing necessary remedial actions, the budget for such actions, and the time frame for resolution of non compliance.

1.3 Methodology

The following approach and methodology adopted and activity undertaken for conducting the social safeguards compliance audit:

- a) Reconnaissance survey and primary site assessment for current land use and to collect and review the baseline social conditions;
- b) Regulatory review in order to understand the applicable, local and national legislation, regulatory frameworks and procedures;
- c) Review of land acquisition and compensation process undertaken by NRPPL/APPL;
- d) Review of land transactions or negotiations by NRPPL/APPL

¹ The Safeguards Policy Statement, 2009

- e) Review of secondary data describing the ethnic/cultural, socio-economic profile of the communities/towns/district where the project facilities are located;
- f) Consultations with the local communities to understand community perception with regard to the project and its activities.
- g) Focused group consultations with selected land losers and other impacted groups;
- h) Group meetings and consultations with local and community representatives;

2. AUDIT FINDINGS

2.1 Involuntary Resettlement

2.1.1. Applicable National Laws/ Regulations

The national law regulation the private land transfer for any development project is undertaken through Land Acquisition Act, 1894 that lays down procedures for acquisition of land, including notification, payment for damages, hearing of objections, declaration of the intended acquisition, enquiry into measurement, values and claims and award by the competent authority and finally taking possession of the land. However for the proposed project the private land is procured through direct purchase on willing buyer-willing seller basis. The revenue land required for project is allotted by the Revenue Department. Hence the above regulation is not triggered and not applicable in case of the proposed project.

2.1.2. Land Requirement

The total area required for the project including erection of wind turbines and associated facilities such as access roads, transmission line pooling substation and switchyard is approximately 78.10 ha. Out of the total area, about 10 ha required for transmission line pooling substation and switchyard/administrative building is been acquired prior to the proposed project on willing buyer willing seller basis by M/s ReGen Powertech and the facility is already been created which will be used as common facility along with the neighbouring wind farms.

The remaining area of about 68.10 ha is being acquired by NRPPL for Chilarewadi Project and constitutes 46.50 ha of private land and 21.6 ha of revenue land. Out of the land acquired 50 ha (1ha/turbine) will be used for setting up of wind turbines and the remaining will be used for access roads and meteorological tower. A total of 50 wind turbine generators are proposed, 33 will be installed on private land and rest 17 on revenue land.

The detailed break-up of the private and revenue land area required for each component of the project, along with type of land, the status of procurement and mode of acquisition is as provided in **Table 1** below:

Table 1: Details of land being acquired

S.N	Project Facilities	Land Area Required (in ha)		Land Use Classification	Status of Acquisition	Mode of Acquisition
		Revenue Land	Private Land			
1	Wind Turbines (50 nos.)	12.0	38.0	<u>Private Land:</u> Fallow Land <u>Revenue Land:</u> Barren Land	<u>Private Land:</u> Out of the total 25.85 ha is already procured and 12.15 ha is under Procurement <u>Revenue Land:</u> Procurement from the government sources is under process	<u>Private Land:</u> Direct Purchase through willing buyer-willing seller agreements <u>Revenue Land:</u> Allotted from State Revenue Department
2	Access Roads (3 nos.)					
	to Chilarewadi Village (3km)	3.0	-	Barren Land	Under Process	Allotted from State Revenue Department
	to Virali Village (3km)	3.6	-	Barren Land	Procured	Allotted from State Revenue Department
	Internal Access Roads (24km)	3.0	8.0	<u>Private Land:</u> Fallow Land <u>Revenue Land:</u> Barren Land	<u>Private Land:</u> Out of the total 4.65 ha is already procured and 3.35 ha is under procurement <u>Revenue Land:</u> Procurement from the government sources is under process.	<u>Private Land:</u> Direct purchase through Willing buyer-willing seller agreement <u>Revenue Land:</u> Allotted from State Revenue Department
3	Meteorological Towers Installations	-	0.5		Procured	Direct purchase through willing buyer-willing seller agreement
	Sub Total	21.6	46.5			
4	Switchyard/Administration Building	-	3.0	Fallow Land	Procured by ReGen Powertech	Direct purchase through willing buyer-willing seller agreement
5	Transmission Line to Pooling Substation (3 – 4 km)	-	7.0	Fallow land	Procured by ReGen Powertech	Direct purchase through willing buyer-willing seller agreement
	Sub Total	-	10			
	Total Land Requirement	21.6	56.5			

2.1.3. Process of Land Procurement

The land procurement was undertaken through a local land aggregator agency M/s Atlanta Power Private Limited (APPL). APPL was responsible for obtaining both private as well as revenue land. The role of AAPL was as following:

- APPL undertook community consultation and individual negotiations with the land owners about the project.
- An agreement to sale based on negotiations was arrived at and all aspects for purchase were discussed with land owners.
- APPL was also involved in obtaining all the required permissions/approvals from government.
- Obtaining Right of Way in Private Land for accessing the locations and for constructing the Transmission Lines was also undertaken by APPL.

2.1.3.1 Private Land Procurement Process

The procurement of private land involved the following process:

- Identification of land required for the project.
- Due diligence of land through verification of VII/XII Extracts, Revenue Records of past 33 years, etc.
- Registered Power of Attorney (POA) and Registered Agreement to Sale (ATS) is obtained
- Paper Notification is issued for a period of 2 weeks for any objections
- Transfer to Client (End User)

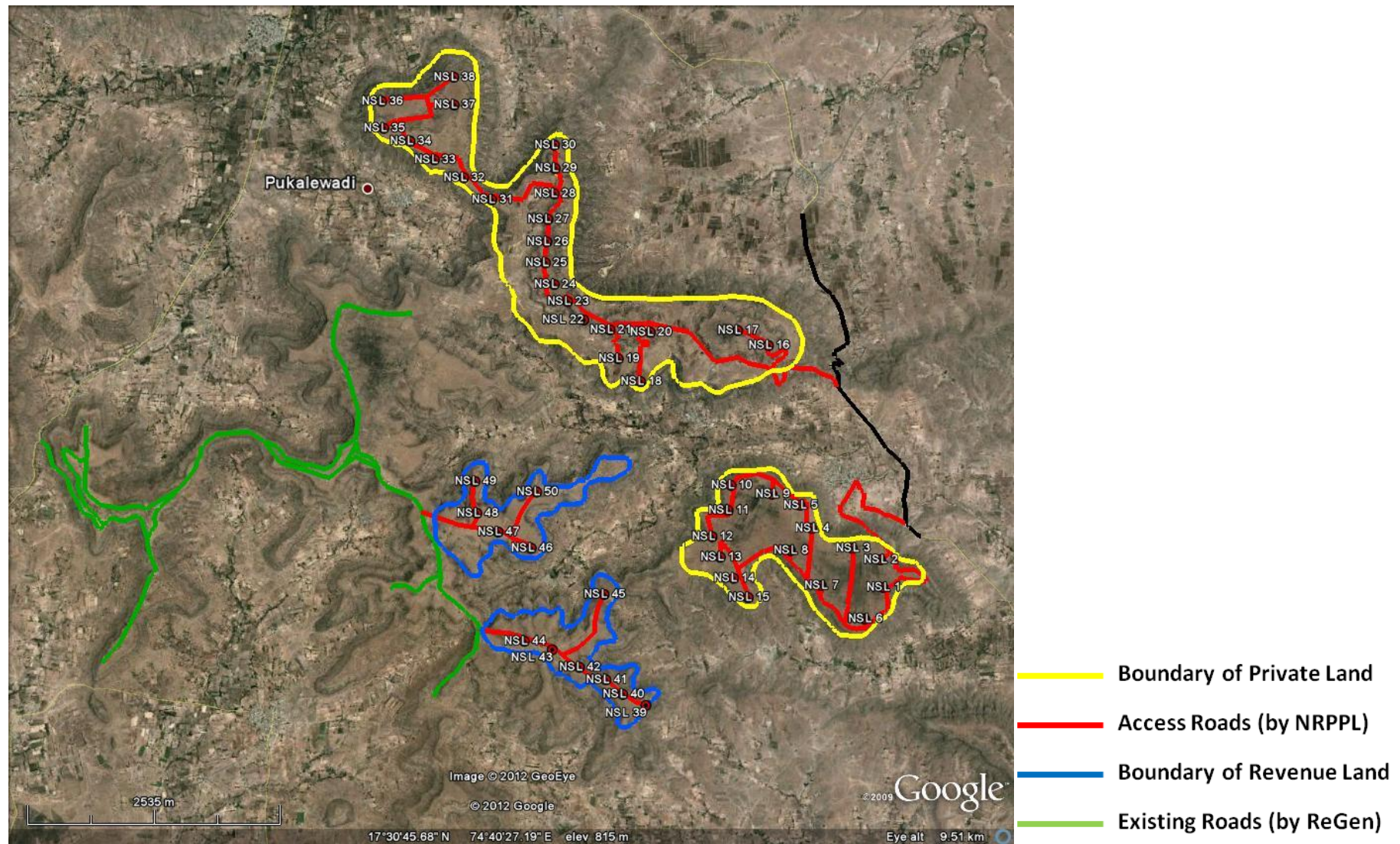
2.1.3.2 Revenue Land Procurement Process

The process of transfer of revenue land involved the following:

- A proposal for allotment of land required for the project is submitted to the District Collector as per the prescribed format.
- The District Collector reviews the proposal and forwards it to the Revenue Collector. The proposal is verified and assessed at various level from Revenue Collector down to Tehsildar and then to Circle Officer.
- The observations and conclusion then are forwarded back from Circle Officer to Revenue Collector through the Tehsildar and Sub Divisional Officer.
- The Revenue Collector then forwards the observations to District Collector, who in turn sends it to the Department of Revenue, Govt. of Maharashtra.
- Once the approval is received, mutation from the Department of Revenue, Govt. of Maharashtra is undertaken at the Tehsildar level.

A map (**Figure 1**) showing the land ownership and the location of all project components such as turbines, access roads and boundaries of revenue and private land are presented below.

Figure 1: Layout of Proposed Turbines and Access Roads



2.1.4 Land Procurement and Involuntary Resettlement

As per the SR-2 under SPS, 2009 the involuntary resettlement requirements apply to full or partial, permanent or temporary physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) resulting from (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. Further Resettlement is considered involuntary when displaced individuals or communities do not have the right to refuse land acquisition which results in displacement. This occurs in cases where (i) lands are acquired through expropriation based on eminent domain; and (ii) lands are acquired through negotiated settlements, if expropriation process would have resulted upon the failure of negotiation.

The project involves procurement of private and revenue land falling under the three villages of Puklewadi, Chilarewadi and Virali. It is to be noted that the proposed project does not involve any involuntary resettlement of local population as specified by SR 2 on the following grounds.

- The land procured is fallow agricultural land and not a source of livelihood for the people.
- The land procured is on willing buyer willing seller basis and not acquired through expropriation or negotiated settlements.
- As none of them have lost any residential or commercial structure there is no physical displacement involved in the process.
- The land is not being used for agriculture from past five to ten years. The area on the top of the plateau is not suitable even for grazing.
- None of the land owners has been rendered landless by procurement of land as all of the land owners reported to have more land besides that on the plateau.
- The land was not a source of livelihood for the people and the compensation paid is higher than the market value hence the project does not entail economic displacement.
- The project does not restrict access to any land based resources or common property resources and does not impact livelihoods of local community.

2.1.5 Compensation and Entitlements

2.1.5.1 Private Land

Procurement of private land was initiated by the land aggregator APPL in 2008. The land was purchased on willing buyer-willing seller basis. Land was procured after prior consultation and finalization of rates at village level meetings conducted by NRPPL/APPL in March-April 2008 at Puklewadi, Chilarewadi, and Virali. The village Panchayat and village elders were briefed about the project and the proposed compensation. They were also informed about myths and benefits of wind farm. Based on the negotiated land purchase, an Agreement to Sale (ATS) document was signed between each of the land owner and APPL for procurement of private land.

Focus group discussions were held with the randomly selected villagers and land sellers. The process of land procurement and negotiations were under process during the time of

consultation. During consultations, the community reported that the terrain of the identified land was difficult for agricultural purposes due to lack of water sources. Carrying water up the plateau was not worth the output of agricultural production. Hence the land was not being used for irrigation from last five to ten years. The area on the top of the plateau was also not very suitable for grazing except for the post monsoon season during which limited grazing activities were undertaken. The value of the land was therefore very less and sale of land occurred only amongst the village community at low prices of approximately INR 5000 per acre. With the advent of wind power projects in the area, including the proposed project, the value of land increased. In order to buy more productive land in other nearby areas, the community was willing to sell the land on the plateau for the project. It was verified through consultation that most of the sellers had actually sold more than what was required for the project.

During consultations, the land owners also agreed to the fact that rate offered by the land aggregators was better than what they would have received if there was no project. No family has been rendered landless by procurement of land as all of the land owners reported to have more land besides that on the plateau. The villagers intended to use the compensation amount for procurement of more livestock and land. Hence the compensation paid for the land was acceptable to the affected families.

The details of private land procured till date and compensation paid is provided in the **Table 2** below. Till date, 41 land parcels have been procured and compensation has been paid to the sellers.

Table 2: Details of Land Procured and Compensation Paid (Wind Turbines and Roads)

S.N.	Gat No.	Village	Purchased Area in Ares ² (100 Ares= 1ha)	Name of Land Owner(s)	Compensation paid (INR)
1	565	Chilarwadi	140	Mr. Balaji Pratap Sinha Jadhdev	60,000
2	1585	Virali	99.75	Mr. Shivaji Anna Gorad Mr. Dadu Shivna Gorad Mr. Shingu Shivna Gorad Mr. Vaman Satyaba Gorad Mr. Jagannath Satyaba Gorad.	2,353,020
3	35	Pukalewadi	153	Mr. Ishwar dada Pukale Mr. Prakash Dada Pukale	3,430,000
4	20	Pukalewadi	107.00	Mr. Balaji Prataosinha jadhav	
5	28	Pukalewadi	100	Mr. Jagu Krishna Pukale Mr. Rama Krishna Pukale	1,420,000
6	605	Chilarwadi	58	Mr. Dadaso Shrimant Ghutukade Mr. Bapu Shrimant Ghutukade Mr. Sadashiv Shrimant Ghutukade Mr. Bhimarao Shrimant Ghutukade Mrs. Tulasabai Shrimant Ghutukade	827,000

² "Are" is a land measurement unit used in the state of Maharashtra. 100 are is equal to 1 hectare (=2.47 acres).

S.N.	Gat No.	Village	Purchased Area in Ares ² (100 Ares= 1ha)	Name of Land Owner(s)	Compensation paid (INR)
7	523	Chilarwadi	7.33	Mr. Shrimant Shidu Ghutukade Mr. Dada Daghu Ghutukade Mr. Popat Daghu Ghutukade Mr. Rajaram Daghu Ghutukade	242,500
8	536	Chilarwadi	8.50	Mr. Satyawan Sopan Ghutukade Shobha Janarthan Ghutukade Ujwala Chandrakant Ghutukade Vaishali Sopan Ghutukade Janabai Sopan Ghutukade Natha Bayaji Ghutukade	
9	43	Pukalewadi	100	Mr. Baba Budhya Pukale	1,072,000
10	1539	Virali	70	Mr. Dada Shankar Ghutukade Mr. Dwarakabai Namdeo Gorad Mr. Anjabai Atmaram Virkar Mr. Sadashiv Ramchandra Gorad Mr. Suhas Brahmadeo Gorad Aniita Prakash Narbad Subhadra Brahmadeo Gorad Shardabai Bapu Virkar Mr. Dada Khashaba Gorad Mr. Dagdu Abba Gorad	874,000
11	1512	Virali	100	Mr. Dadu Shivna Gorad	863,220
				Mr. Shingu Shivna Gorad	
12	1601	Virali	75.16	Mr. Pandurang Babu Gorad Mr. Shidha Kasu Gorad Mr. Nivriti Namdeo Gorad Mr. Shivaji Namdeo Gorad Mr. Mahadeo Namdeo Gorad Mr. Akutai Khasaba Kolekar Mr. Chandabai Namdeo Gorad	201,750
13	1571	Virali	57.5	Mr. Kailas babu Kashid Mr. Adhinath Babu Kashid	172,500
14	1572	Virali	38	Mr. Dattatray Atmaram Kashid	251,500
15	515	Chilarwadi	100	Mr. Dada Dagdu Ghutukade Mr. Popat Dagdu Ghutukade Mr. Rajaram Daghu Ghutukade Shobha Janarthan Ghutukade Mr. Dadywan Sopan Ghutukade Ujwala Chandrakant Ghutukade Vaishali Sopan Ghutukade Janabai Sopan Ghutukade	1,126,000
16	1819	Virali	16.87	Mr. Sampatrao Namdeo Gorade Mr. Kusum Chandrakant Ghutukade Mr. Popat Dagdhu Ghutukade	
17	524	Virali	78.58	Mr. Shrimant Shidu Ghutukade Mr. Dada Daghu Ghutukade Mr. Popat Daghu Ghutukade Mr. Rajaram Daghu Ghutukade Mr. Satyawan Sopan Ghutukade	

S.N.	Gat No.	Village	Purchased Area in Ares ² (100 Ares= 1ha)	Name of Land Owner(s)	Compensation paid (INR)
				Shobha Janarthan Ghutukade Ujwala Chandrakant Ghutukade Vaishali Sopan Ghutukade Janabai Sopan Ghutukade Natha Bayaji Ghutukade	
18	1819	Virali	22.13	Mr. Rajesh Kakasaheb Ghadge Mr. Chandrakant Sakharam Ghutukade Mr. Satyawan Sopan Ghutukade Shobha Janarthan Ghutukade Ujwala Chandrakant Ghutukade Vaishali Sopan Ghutukade Janabai Sopan Ghutukade	
19	604	Virali	21	Mr. Ramesh Vikram Sona Wane Mr. Kalabai Dada Ghutukade Mr. Dilip Shreepati Ghutukade	
20	606	Virali	10	Mr. Ashok Shreepati Ghutukade Mr. Nivas Shreepati Ghutukade Vidhya Vishnu Sargar Malan Shreepati Ghutukade Mr. Prakash Shankar Ghutukade	326,452
21	603	Virali	23	Mr. Sharada Shankar Ghutukade Mr. Ratan Nivrutti Gorade Mr. Sitabai Maruti Gorade Savitrabai Bhikan Gorade Tulsabai Shankar Ghutukade Mr. Popat Dagdu Ghutukade Mr. Satyawan Sopan Ghutukade Shobha Janarthan Ghutukade Ujwala Chandrakant Ghutukade Vaishali Sopan Ghutukade Jayabai Sopan Ghutukade Mr. Sandipan Devba Ghutukade	791,925
22	1822	Virali	106.25	Mr. Rajesh Kakasaheb Ghadge	1,813,050
23	1575	Virali	53.81	Mr. Dilip tatoba Nalavade	
24	1575	Virali	44.98	Mr. Dilip Tatoba Nalavade Mr. Dadasaheb Muralidhar Nalavade Mr. Kusum Rajendra Katkar Usha Tanaji Bagal Mr. Ratan Murlidhar Nalavade Mr. Bajirang Vithoba Nalavade	
25	1582	Virali	62	Mr. Changdev Vitthu Nalavade	
26	511	Chilarwadi	449.5	Mr. Pandurang Babu Gorad Mr. Uttam Dyanu Chavan	3,135,000
27	511	Chilarwadi	108.5	Mr. Bajarang babu Gorad Mr. Bhagwan Babu Gorad Mr. Pandurang babu Gorad Mr. Uttam Dyanu Charan	

S.N.	Gat No.	Village	Purchased Area in Ares ² (100 Ares= 1ha)	Name of Land Owner(s)	Compensation paid (INR)
28	1652	Virali	202.5	Mr. Daji Shivana Gorad Mr. Anna Shivana Gorad Mr. Raghu Shivana Gorad Mr. Dasharath Shivana Gorad Mr. Sanjay Baba Gorad Mr. Prakash Baba Gorad Mrs. Tarabai Baba Gorad Mr. Dagdhu Hariba Gorad Mr. Shida Hariba Gorad Mr. Bhagvan Hariba Gorad Mrs. Ashabai Rajaram Gorad Mrs. Sonabai Uttam Ghutukade Mrs. Gokula dhondiba Pukale	4,421,000
29	72	Pukalewadi	100	Mr. Hari Vithu Pukale	1,530,000
30	1821	Pukalewadi	11.95	Mr. Rajesh Kakasaheb Ghadge Mr. Chandrakant Sakharam Ghutukade Mr. Satyawan Sopan Ghutukade Shobha Janarthan Ghutukade Ujwala Chandrakant Ghutukade Vaishali Sopan Ghutukade Janabai Sopan Ghutukade	40,000
31	19	Pukalewadi	20.53	Mr. Balaji Prataosinha jadhav	435,000
32	12	Pukalewadi	105.00	Mr. PreshitKumar Ravindrakumar Kamble Mr. Surendrskumar Vishvanath Jadhav Mr. Janardhan Lalaso Ghadge Mr. Krushnath Narayan Shedge	235,000
33	50	Pukalewadi	105.83		263,980
34	44	Pukalewadi	10.31		306,000
35	30	Pukalewadi	70.00		225,150
36	71	Pukalewadi	25.5		160,000
37	583		12.00	Mr. Ramesh Vikram Sona Wane	160,000
38	36	Pukalewadi	108.66	Mr. Shamrao Bhairu Shelke Mr. Maruti Bhairu Shelke Mr. Tattyaba Bhairu Shelke Mr. Harishchandra Bajirao Shelke Mr. Dajiram Ramu Shelke Mr. Rajaram Ramu Shelke Mr. Mahadeo Ramu Shelke	545,000
39	37	Pukalewadi	33.00	Mr. Popat Ramu Shelke Mr. Jyotiram Ramu Shelke Mr. Chaturabai Hariba Jankar Mr. Bai Balu Hubale Mr. Govind Pandarinath Pukale	265,000

S.N.	Gat No.	Village	Purchased Area in Ares ² (100 Ares= 1ha)	Name of Land Owner(s)	Compensation paid (INR)
40	47	Pukalewadi	24.00	Mr. Chagan Pandarinath Pukale Raibai Bhima Bankar Rukmini Shivaji Dadas Mr. Gopal Babu Pukale Jagabai Babu Pukale Mr. Ramdas Walchand Pukale Chandrabhaga Walchand Pukale Mr. Rahul Sadashiv Pukale Kavita Sadashiv Pukale Meghnarani Sadashiv Pukale Madhuri Sadashiv Pukale	
41	41	Pukalewadi	10.58	Pusphalata Sadashiv Pukale Mr. Dhondiram Hari Shelke Mr. Mayappa Sadhu Shelke	1,172,000
Total			3,050.72 Ares (~30.5 ha) Area for Wind Turbines : 25.85 ha Internal Access roads : 4.65 ha		INR 28,558,047

2.1.5.2 Revenue Land

About 21.6 ha of revenue land has been identified for the project and is being procured by APPL. Nearly 3.6 ha of revenue land required for construction of 3 km long access road upto Virali village has been allotted by the State Revenue Department. Procurement of remaining revenue land is under process. It was reported during the community consultations that the revenue land being acquired is barren with no livelihood dependence on it. No Objection Certificates have been provided by the community (Panchayats of three villages Chilarewadi, Puklewadi and Virali) as appended in **Annexure II**.

2.2 Indigenous Peoples

As per the ADB SPS SR-3, the term Indigenous Peoples is used in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees:

- self-identification as members of a distinct indigenous cultural group and recognition of this identity by others;
- collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories;
- customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and
- a distinct language, often different from the official language of the country or region.

The project area is dominated by Hindu population which comprise of 95% of the total population, followed by Muslim, Jain and others. The Maratha community constitutes the biggest group in general class and Dhankars (Sheep/Goat Farmers) are the largest backward class group in the project area. Thus the project area is not associated with any distinct

indigenous cultural group. The customs and practices of these communities are same as that of the region. The communities are also not associated with any specific geographical habitat or natural resources in the project area. Also there are no ancestral territories in the area. Hence the applicability of the safeguard on indigenous peoples and its relevant clauses/special concessions are not applicable for the project.

2.3 Ethnic Profile of Project Area

This section presents the socio economic profile of the community in the project's area of influence, including the land sellers. The information related to the socio-economic context of the area was collected through the following sources:

- Review of secondary literature
- Demographic details from Census of India 2001
- Consultation with local community and other stakeholders
- Unstructured interviews with affected families
- Interaction with village Panchayat and influential persons

The area of influence (AOI) of the project is sited in three villages of Man Tehsil viz. Chilarewadi, Virali and Puklewadi, as presented in **Table 3** below. People will be directly affected by land take in only these three villages.

Table 3: Project's Area of Influence

S.N.	Name of Village	Tehsil	Distance from Project site	Key Influences from Project
1.	Chilarewadi	Man	~1 Km.	<ul style="list-style-type: none"> • Land Acquisition revenue village • Location of the Wind Farm
2.	Virali	Man	~1-2 Km.	<ul style="list-style-type: none"> • Land Acquisition revenue village • Location of the Wind Farm
3.	Puklewadi	Man	~4 Km.	<ul style="list-style-type: none"> • Land Acquisition revenue village • Location of the Wind Farm

The private land procurement for the project was undertaken through a local land aggregator agency M/s Atlanta Power Private Limited (APPL). Out of the total 56.5 ha of private land required for the project, 10 ha has been procured by M/s ReGen Powertech for construction of the pooling substation. Remaining 46.5 ha of private land is being procured by APPL, out of which 30.5 ha is already procured and procurement of 15.5 ha is under process. Adequate funds have been allocated by NRPPL for remaining land for procurement, as provided in sections below.

2.3.1. Ethnic Distribution (Demographic Profile)

The area of influence (AOI) of the project is sited in three villages of Man Tehsil. Rural population comprises approximately 90% of total population of Man Tehsil. However Man tehsil covers only 7% of total population in Satara district.

Out of the total population in the project area, 95% is dominated by Hindu population while remaining 5% covers Muslim, Jain and others. The social composition in the project area is numerically and economically dominated by the Maratha community (General Class), followed by the Backward Classes (OBC) and the Scheduled Castes (SC). Caste composition observed during consultation and survey of project villages is given in **Table 4**.

Table 4: Caste distribution of Project Villages

Villages	General Castes (%)	Backward Castes (%)	Scheduled Castes (%)	Scheduled Tribes (%)
Chilarewadi	55	45	0	0
Virali	50	40	10	0
Puklewadi	5	90	5	0
Project Area (Average)	36.6	58.3	5	0

Source: Survey and Consultation in Project area

General and backward classes are almost equally distributed in total project villages. However schedule class caste population is limited to 5% to 10% only. Marathas constitute the biggest group in general class and Dhankars (Sheep/Goat Farmers) are the largest backward class group in the project area. The project area does not report the presence of scheduled tribes (ST) although the Satara district has a ST population of 1%.

As per the ADB SPS SR-3, the term Indigenous Peoples is used in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees:

- (i) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others;
- (ii) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories;
- (iii) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and
- (iv) a distinct language, often different from the official language of the country or region.

The project area is not associated with any distinct indigenous cultural group. The customs and practices of the dominant communities found in the project area such as Marathas and Dhankars, are same as that of the region. The communities are also not associated with any specific geographical habitat or natural resources in the project area. Also there are no ancestral territories in the area. Hence the applicability of the safeguard on indigenous peoples and its relevant clauses/special concessions are not applicable for the project.

2.3.2. Settlement Pattern in Project Area

The wind farm site is located on flat-topped hills and the concerned villages are located around the base of the plateau along State highway-76 and other district roads. Chilarewadi and Virali villages are adjacent and have a radial settlement pattern wherein the main village road connects both villages. Pukalewadi village is situated along the state highway.

Chilarewadi and Virali villages have mixed settlement pattern of general class and backward class castes. Backward casts community inhabits largely in Puklewadi village like *Shelke and Pukade*.

Structures are mostly built with burnt bricks and have a stone foundation. The walls are plastered and painted with distempers that give them a variegated appearance of stone and cement structures, some with an asbestos / tin sheets or tiles for a roof while others have a *pucca* (concrete) roof.

2.4 Socio-economic Profile of Project Area

2.4.1 Land Use in Project Area

Agricultural use of land is not dominated in project area villages because of its undulating geographical condition and most of available agricultural land comprises of unirrigated land. The cultivated area in project vicinity falls under two categories, *jirayat* and *bagayat*. The *jirayat* land (unirrigated or dry land) which forms nearly 85% of the total cultivated area is cropped only once with the help of rainwater, whereas the *bagayat* land (irrigated land) which forms 15% of the total cultivated area is cropped with the help of irrigation.

This only indicates the greater dependence of agriculture on monsoons. Area of land under forest land is categorized as reserved and protected. The major portion of this area is under the Revenue Department. The land use in project area that shows in **Table 5** follows the similar pattern.

Table 5: Land use in Project area (Village wise)

Villages	Agricultural land			Land not available for cultivation	Culturable waste land	Revenue
	(% of total area)	Irrigated (% of agricultural land)	Unirrigated (% of agricultural land)	(% of total area)	(% of total area)	(% of total area)
Chilarewadi	31	50	50	6	13	50
Virali	38	11	89	19	20	23
Puklewadi	39	9	91	7	4	50

Source: Census of India, 2001

Average land holding was 6 to 10 acres across the households of project area villages as per Census of India, 2001. During consultation with landowners of concerned villages it was noticed that less significant change has been noticed in average land holding pattern in past three to four years because of the land acquisition happening for other adjacent wind farm sites (operational at present time) in vicinity of project villages.

2.4.2 Agriculture in Project Area

Most of cultivable land in project villages falls under the category of *jirayat* or dry land. The early monsoon crops are called *kharif* crops and the late monsoon crops, *rabi* crops. The *kharif* crops are brought to maturity by the showers of south-west monsoon, whereas *rabi* crops are dependent upon dew irrigation and the occasional fair weather showers between November and March.

The *kharif* season which commences in June-July and terminates in September-October gets its rainfall primarily from the south-west monsoon and from the occasional ante-monsoon showers in May. Usually, *kharif* crops are sown from the first week of June to mid July and harvested in mid-September and sometimes even up to the end of November. The sowing and reaping of these crops roughly coincides with the commencement and termination of the monsoon. In project villages, most of cultivable area covers only one season cropping pattern of *Kharif* crops based on rain water (monsoon) irrigation.

Rabi season commences from the middle of October and terminates in mid-February or in the first week of March. *Rabi* crops are taken with the help of irrigation and occasional fair weather showers due in November. Sowing of *rabi* crops generally takes place in November, whereas they are harvested in March. These are grown in adjacent low lying areas where irrigation is managed through tube well water, as rainfall in this season is very scanty.

Jowar, Bajra, Maize, Pulses like Matki and Moong are major crops of *Kharif* seasons cultivated in project villages.

2.4.3 Common Property Resource (CPR)

Land is an important natural resource of fodder and fuel wood for villagers in project area. Almost every household has livestock as an important source of livelihood in project area. Crop residue and grazing fields near forest area are the main source of fodder for livestock. Villagers get dried leaves and firewood from forest areas for their fuel needs. The proposed project does not impact the common property resources of the villagers.

2.4.4 Livelihood Pattern of Project Area

Agriculture based livelihoods (cultivators, share croppers and agricultural labourers) and Livestock rearing are the predominant occupational activities subsequent with other non-farm based livelihoods (private and government service) and ancillary livelihoods (trading, contracting etc.) occupational activities in the project area.

As per Census of India, 2001, total agriculture and allied agriculture based working population of Satara district is 53% of total working population. However in project area this proportion is slightly more than 64%. **Table 6** presents the working and non working population composition of project area.

Table 6: Composition of Working and Non- Working population

Village/ Taluka/ District	Main Workers ³ (%)				Marginal Workers (%)	Non- Workers (%)	WPR ⁴
	Cultivators	Agricultura l Labour	Househol d Industry	Other Workers			
Chilarewadi	42	2	1	2	1	52	48
Virali	31	5	0	5	3	56	44
Puklewadi	26	5	1	17	4	47	53
Man	23	8	1	8	7	53	47
Satara	18	7	1	11	9	54	46

Source: Census of India, 2001

Work participation ratio (WPR) of district is 46% which is significantly higher than the WPR of project area i.e. approx. 33%. The proportion of working population and the non-working population are nearly equal and it shows a significant dependency ratio of non earning members to earning members in each household.

Livelihood based on household industries, other industrial activities and other ancillary livelihood activities are restricted, it may be because of lack of proper educational and skill level in working population.

As mentioned earlier, the project area has one season cropping pattern because of lack of irrigation sources as agriculture is completely depend on rain (monsoon). In project area agriculture as a main source of livelihood is restricted because of poor productivity, lack of irrigation sources, increasing input costs, poor credit and market linkages etc. It was observed that major part of crop production is being used up for household consumption.

Share cropping is also limited in the project area because of one season cropping pattern although large proportion of working population in the project area comprises of agricultural labourers. These facilities are available and two season cropping are in practise. A large proportion of the marginal agricultural labourers find work in adjacent areas where proper irrigation facilities are available and two season cropping are in practise. A large proportion of the marginal workers in the project area are agricultural labourers, which indicate that they get less than 188 man days of work in a year. However, demand for agricultural labour often exceeds the supply in some villages during the peak harvest season (monsoon season).

3 Main workers are those people who had worked for at least 183 days in the preceding year, while marginal workers are those who had worked for more than one day but less than 183 days.

4 WPR is the ratio of working population (both main and marginal workers) to the total population (both working and non working population) of the town/village.

The livestock continues to be a valuable possession of the farm and holds an important source of livelihood in the project villages. Almost every household has livestock including cow, buffaloes, poultry birds, sheep and goats. Sheep/goat farming is one of predominant occupation in the project area.

2.4.5 Migration of Sheep/goat Farmers for Grazing

During the dry season, grazing fields in the project area are limited and because of it sheep/goat farmers migrate after *Dipawali* festival in the month of October-November with a herd of 50 to 55 sheep and goats to adjacent tehsils and districts where appropriate grazing areas are available. Usually two male and one female member travels with every herd of goat and sheep. They travel from one grazing area to another and return during monsoons in the month of June, since adequate grazing fields are available during the monsoon season in the vicinity of villages. During consultation it was reported by the villagers that farmers earn from INR 100,000 - 150,000 from trade of 50 to 55 sheep and goats.

Non-farm based livelihood has very limited avenues or options in the project area. This comprises of non-agricultural labour, limited production of commodities as well as private and government service. Most of non agricultural labourers migrate to nearby areas of Satara and Karad mostly as industrial and construction labourers. However for employment in private sectors villagers prefer to go Pune and Mumbai.

2.4.6 Status of Women

Government schemes promoting girl child education are active in the project area. More and more girls in the current generation are going to school and pursuing higher education. Some of the educated women also avail job opportunities in the nearby towns. Women are consulted during decision making processes regarding sale and purchase of land and property, marriage, education of children etc.

In addition to household chores women in the project villages participate in agricultural work and livestock rearing that are principal sources of livelihood in the area. It was observed that working of women is not restricted to caste; women from all castes are engaged in work irrespective of the caste. There are skilled women in the project villages engaged as a school teachers and anganwadi workers/helpers also. The figures shown in **Table 7** reflect the working women participation in project area.

Table 7: Work Participation of Women in project villages

Project Villages	Main workers (%)	Marginal workers (%)	Non workers (%)
Chilarewadi	25	1	27
Virali	20	2	32
Puklewadi	24	4	21

Source: Census of India, 2001

2.4.7 Existing Infrastructure Facilities

The social infrastructure indicates the development pattern of the area and the details of the existing infrastructure available in the project area which is presented in **Table 8**.

Table 8: Existing infrastructural facilities available in the project villages

Project Villages	Approach Roads	Communication Facilities	Power Supply	Sources of Water Supply	Educational Facilities	Medical Facilities	Postal and Telecommunication Facilities
Puklewadi	1	0	Available for all purposes	3	1	0	0
Virali	1	1		2	7	0	1
Chilarewadi	1	0		3	1	0	0

Source: Census of India, 2001

Roads and Communication Facilities

The road network and connectivity in the project area was observed to be good. The project area is connected by two State Highways, SH-58 to the north of the site and SH-76 to the south. As per Census 2001 data, paved approach roads to the villages of Puklewadi and Virali are available. Chilarewadi village is accessible by mud roads. Public bus services are available from village Virali only. For Chilarewadi and Puklewadi, villagers have access to bus services from 5 to 10km distance from the village. The nearest railway station is also at a distance of more than 10km for the villages. People are mostly dependant on private modes of transport.

Power Supply

According to Census 2001, electricity is available for all purposes (domestic and agriculture) in the project area. It was observed during visit to the site that all the adjoining villages are electrified except few hamlets.

Water Supply

The Census 2001 data records the presence of tanks, wells and hand pumps that serve as drinking water sources in the project villages. People of Virali village use tap water and hand pumps for drinking purposes while wells are present in the other two villages. The supply of water was reported as a major concern of the people during consultation.

Educational Facilities

The literacy rate in the project area (49%) is lower than the district level. This might be attributed to the fewer number of schools in the project villages. Virali village records the highest number of educational centers in the Census 2001 database. There is one primary school each in Puklewadi and Chilarewadi. Virali village has four primary schools, one middle school, one

secondary school and one adult literacy center. For higher education, students go to Satara or other nearby towns in the area.

Medical Facilities

As per Census 2001, there are no medical facilities in the project villages. The nearest allopathic hospital and primary health center is at a distance of more than 10km from the villages.

2.5 Community Development Initiatives

In response to the concerns and expectations raised during the ESIA consultations NRPPL along with the land aggregator M/s Atlanta Power Private Limited (APPL) so far has undertaken few initial measures as part of the ongoing CSR process. The list of some of the community engagement activity completed/in progress till end of January 2013 and the expenses incurred towards the same is presented in **Table 9**.

Table 9: Community Engagement Activities Completed/In Progress (January, 2013)

Sl. No	Activities Undertaken	Status	Expenses Incurred (Rs. million)
1	Engagement of local workers for construction activity	In progress	6.0
2	Engagement of security staff	In progress	0.5
3	Engagement of locally available tractors and vehicles for project activities	In progress	30.0
4	Assistance towards development of community hall at Puklewadi village	Completed	0.3
5	Contribution towards local festivals and village level events	Completed	0.2
6	Contribution towards construction of temple in Virali village	Completed	0.1
7	Construction of water supply system in Virali village	Completed	0.1
Total			37.2

As part of the continuous Corporate Social Responsibility process and in order to improve the socio-economic status of the local population, a need based assessment was undertaken by NRPPL in the three villages and a set of interventions have been identified through a Community Development Plan (CDP). The objective of the CDP was to describe the approach for the project with respect to community commitments made by the project, and as described in the ESIA. The plan would serve as an important part of the social management process in

translating the commitments into guidelines for implementation. The preparation of the CDP is an outcome of the needs assessment and the consultations with the project villages.

The key elements identified as part of the need assessment which will be implemented through the CDP are to upgrade the existing village road infrastructure and to enhance the water availability in the area, besides other requirements such as up-gradation of school and temple infrastructure and financial support to youth and women groups. The community is aware of the need assessment undertaken and has expressed their satisfaction over the current status of the engagement process.

3. CONCLUSION AND RECOMMENDATIONS

3.1 Conclusion

3.1.1 Involuntary Resettlement

The proposed project involves procurement of private land falling under the three villages of Puklewadi, Chilarewadi and Virali. No physical displacement is involved in the process. The procured land is fallow agricultural land and not a source of livelihood for the people. The land procured is on willing buyer willing seller basis and compensation paid is higher than the market value hence the project does not entail economic displacement. Therefore the involuntary resettlement requirements as stipulated under SR 2 will not be applicable for the project. The ESIA report identifies all potential socio-economic impacts due to the project and appropriate mitigation measures and plans have been suggested. A Community Development Plan (CDP) has also been prepared in order to understand the needs of the community and implement developmental activities in the project affected villages.

NRPPL is in the process of setting up a formal and documented mechanism for grievance redressal which will be implemented through their corporate social and environmental management system.

3.1.2 Indigenous People

The project area is not associated with any distinct indigenous cultural group. The existing communities are not associated with any specific geographical habitats of natural resources. Also there are no ancestral territories in the area. Hence the SR 3 on Indigenous Peoples Safeguard and the requirements there under are not applicable for this project.

3.2 Recommendations

NRPPL has undertaken activities as per the requirements of IFC Performance Standards which has ensured compliance to most of the elements of ADB Safeguards. No outstanding issues, grievances or complaints pertaining to the land procurement process were observed during the audit.

Out of the total land identified for the project, procurement of about 15.5 ha of private land and 18 ha of revenue land is under procurement by APPL and this activity is expected to be completed by 30th April 2013. **Table 10** below presents the schedule and estimated budget for the remaining land procurement. The construction works for the project has been commissioned on 27th January 2013.

Table 10: Estimated Timeline and Budget for Remaining Land Procurement

S.N.	Type of Land	Amount of Remaining Land to be procured (ha)	Schedule for completion of remaining land procurement	Estimated Budget (INR)
1	Private Land	15.5	30 th March 2013	INR 4 million
2	Revenue Land	18	30 th April 2013	INR 50.6 million (As per MOU signed with Developer)

NRPPL shall provide employment opportunities to selected persons from the families of the land owners. A procedure needs to be established in order to identify skill sets among the land owners and provide jobs based on the skills. Opportunities for providing civil construction related contract work to the affected families shall also be explored by NRPPL.