

Environmental and Social Review Summary

Country: Morocco

Project Name: Noor Solar Power Projects Additional Financing

Project Number: P164288; Additional Project ID: P131256

Environmental Category: A

Project Description

1. The Additional Financing (AF or the “Project”) supports the development and construction of the next solar power complex in Morocco’s solar power program being undertaken by the Moroccan Agency for Sustainable Energy (MASEN). The Noor-Midelt complex, which is expected to rely on a hybrid design using concentrated solar power (CSP) and photovoltaic (PV) technologies, combined with thermal storage, will be located on 4,141 hectares (ha) of land 20 km north of the town of Midelt in central Morocco, in the high plains surrounding the Moulouya river, between the Middle and High Atlas Mountains. The first phase of this new complex consists of two separate plants, Noor-Midelt I and II, which are the subject of the Project.¹

2. The specific design and technology (e.g., choice of CSP technologies (parabolic trough or tower), power block, thermal storage, etc.) will be determined by the competitively-selected private sector sponsors that will design, construct, own, and operate the Noor-Midelt plants (referred hereinafter as “sponsors” or “developers”).

3. The complex’s ancillary facilities consist of the following common infrastructure:

- (1) a new standard raw water intake with a pumping station;
- (2) a new standard raw water treatment plant close to the water intake;
- (3) a new 11 km treated water pipeline;
- (4) a new treated water storage tank;
- (5) a new 22 kV transmission line and a 22 kV/400 kV substation to be constructed and operated by Office National de l’Electricite et de l’Eau Potable, Branche Electricite (ONEE);
- (6) rehabilitation of an existing access road;
- (7) a new bridge over the Oued Sidi Ayad that will connect the two plant sites;
- (8) potentially a worker’s camp; and
- (9) a new 180 km 400 kV transmission line that will be constructed and operated by ONEE.

4. ONEE, as the national power and water utility, will construct the 180 km 400 kV transmission line to connect the Noor-Midelt complex to the national grid. The line will be going from an evacuation post at the Midelt I and II Plant Site, across the mountain range of the Middle Atlas, to the El Ouali transformer station between Fez and Taza. Currently, the detailed design (including terminus/grid connection location, number of towers, and land requirement) of the 400

¹ 1. MASEN envisages that there will be a second phase to the Noor-Midelt project, with a similar size and configuration to phase 1. This is yet to be confirmed and no timeline has been established yet for this 2nd phase.

kV transmission line, which will be financed by the German KfW, is not yet known, and the line route was changed in January 2018 due to concerns about environmental impacts.

5. The Noor-Midelt site has been selected for the following reasons: i) the site has excellent potential for solar power production; ii) the site is close to the Hassan II Reservoir (11 km) for its water needs; iii) there is a nearby electric transmission line; iv) there is easy access to the RN13; v) the site is very flat and favorable for a solar power plant; vi) there are no people living on the site and no physical displacement is required; vii) the vegetation is very sparse so that the site is barely used for livestock grazing; viii) environmental constraints are minimal; ix) there are no physical cultural resources within a radius of 3 km; and x) the site is located outside a natural zone and outside any protected tourist area.

Key Issues

6. The Project has been determined to be a Category A project because it is expected to involve potentially significant adverse environmental and social impacts, including land acquisition and economic displacement; community and occupational health and safety (e.g., high risk of accidental fatalities during the construction phase, particularly if tower CSP technologies are used, as is anticipated); and water availability/scarcity as a consequence of climate change. Additional risks relate to the yet to be identified private sector sponsors' capacity to establish and implement a satisfactory Environmental and Social Management System (ESMS), and the capacity of ONEE to effectively manage environmental and social risks related to the associated transmission lines.

7. The following Performance Standards (PSs) apply to the Project:²

- PS 1: Assessment and Management of Environmental and Social Risks and Impacts
- PS 2: Labor and Working Conditions
- PS 3: Resource Efficiency and Pollution Prevention
- PS 4: Community Health, Safety, and Security
- PS 5: Land Acquisition and Involuntary Resettlement
- PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- PS 8: Cultural Heritage.

8. World Bank Operational Policy (OP) 4.37 on the Safety of Dams will also apply to the Hassan II Dam and Reservoir.

9. ONEE, who is a public entity, elected to apply World Bank OPs to its work on the transmission line. As such, the following OPs will apply to this aspect of the Project:

- Environmental Assessment OP/BP 4.01

² PS 7 (Indigenous Peoples) does not apply because no indigenous groups within the definition of this standard have been identified in the Project area.

- Involuntary Resettlement OP/BP 4.12

10. The Project will also be expected to apply the World Bank Group's General Environment, Health and Safety Guidelines (EHSG) and industry sector EHSG for Electric Power Transmission and Distribution and Thermo Power Plants.

11. The Environmental and Social Action Plan (ESAP) (attached), includes the outstanding actions and obligations of MASEN, the Developers, the Contractors, and ONEE to ensure compliance with all applicable Performance Standards, Safeguard Policies, and EHSGs.

Key Information Sources

12. The World Bank (WB) team relied on the following for its assessments and due diligence:

- The FESIA, including an Environmental and Social Management Plan (ESMP), dated November 18, 2107, prepared by Clean Tech on MASEN's behalf;
- MASEN's three due diligence documents for land acquisition titled 'Land Acquisition Plan' (LAPs): a Midelt I and Midelt II Plants-site LAP (LAP 1) dated July 2017 and disclosed in-country on MASEN's web-site in August 2017; an Access Road-site LAP (LAP 2) dated July 2016 and disclosed in-country on MASEN's web-site in September 2016; and a Water Pipeline-site LAP3, dated July 2017 and disclosed in-country on MASEN's web-site in August 2017; all disclosed on the WB web site on October 17, 2017;
- Extensive discussions with MASEN's Sustainable Development Team.

13. As part of the review process, the WB team visited the Project site and proposed land acquisition areas during October 25-28, 2016, and July 12-14, 2017. The team also reviewed MASEN and ONEE's performance in implementing safeguards requirements on the Noor-Ouarzazate I, II and III projects in Ouarzazate (which use similar technologies and approach as anticipated for Noor-Midelt), and in constructing transmission lines associated with the Morocco Clean and Efficient Energy project.

PS1: Assessment and Management of Environmental and Social Risks and Impacts

Environmental and Social Assessment:

14. A Framework Environmental and Social Impact Assessment (FESIA) was prepared by MASEN that identifies, assesses, and proposes measures to manage environmental, social, health and safety risks and impacts for the Noor Midelt I and II plant sites and identified associated facilities and takes into consideration both local laws and regulations, and the World Bank's PSs, and EHSGs. The FESIA includes a Cumulative Impact Assessment and detailed Analysis of Alternatives, including the foregone benefits, such as a reduction in GHG emissions, of the no-project alternative. The FESMP, which is part of the FESIA, covers the water intake, water treatment plant, water pipeline, upgrading of access road and bridge.

15. Preparation of the FESIA used standard, internationally-accepted methodology preparation of ESIA. The FESIA involved a comprehensive environmental and social baseline assessment, including biodiversity, water resources, and social aspects. The main positive impacts from the Project were determined to generating environmentally-friendly electricity to meet domestic demand in Morocco from indigenous sources and creating temporary jobs during construction for approximately 3800 people (during construction - 1500 per power plant and 800 for the common infrastructure; during operation -100 per power plant and 50 for common infrastructure) and avoidance of greenhouse gas emissions. Some of the moderate negative impacts are: occupational health and safety with regard to traffic and machinery use, discharge of wastewater, hydrocarbon pollution of soil and water resources, potential negative impact on migratory birds.

16. The Specific Environmental and Social Impact Assessments (SESIAs), which are site and technology specific, cannot be completed until award of the plants and closing of their related financing. The principles and process for the SESIAs and Specific Environmental and Social Management Plans (SESMPs) to be prepared by the selected private sponsors are set out in the FESIA. In order to provide clear guidelines to bidders as to the environmental and social standards and particular conditions to be applied during Project implementation, the FESIA was prepared and disclosed in November 2017.

17. Presently, ONEE is preparing an ESIA and a LAP for the 400 kv transmission line in accordance with local laws and regulations, the World Bank's OPs, and EHSGs World Bank OPs, . An initial draft of the LAP has been submitted by ONEE to KfW, which is financing construction of the line through a loan to MASEN that is on-lent to ONEE for the work, and was shared with the WB and other IFIs for review and comments. A final draft of both the ESIA and the LAP are currently expected to be submitted to the World Bank and approved prior to March 31, 2018. MASEN, which is KfW's borrower, will monitor construction and operation to the line to ensure compliance with KfW's applicable standards and safeguards policies, which include WB OPs. The preparation, implementation and monitoring of the safeguards instruments for the transmission line are included in the ESAP.

18. The FESIA was presented to the Ministry of Environment and approved on January 12, 2016. An Environmental Permit has been obtained during the said approval process. National regulations require the general public to be informed about the project, and local level disclosure of the FESIA, and local level disclosure of the FESIA was undertaken from June 30, to July 20, 2015 at the offices of Zaida, Ait Yaakoub and Mibladene rural communes. Complete version of the project FESIA was disclosed on September 2016, and an update on November 2017. Communities were informed by the client and local officials about the duration and goals of the disclosure and where the documents are disclosed. Non-technical summaries were distributed during a public consultation held on March 10, 2016, where all concerned stakeholders (including population) were invited to attend the presentation of the FESIA results. The FESIA was publicly disclosed on the WB website on November 30, 2017.

19. Site visits by the World Bank team confirm that the FESIA has adequately identified likely impacts and risks in the Project's area of influence. As currently proposed and designed, the Project requires third parties – such as the plants' private sector sponsors and contractors, and ONEE for the transmission line – to comply with obligations stemming from the FESIA, in

particular in the preparation and implementation of the SESIAs and SESMPs, and other environmental, social, health and safety aspects of the Project. The FESIA and FESMP are designed at a level commensurate with the assessed risks.

20. A preliminary gap analysis between the PSs and Moroccan laws was prepared. The finalization of this analysis and any relevant gap filling measures are part of the attached Environmental and Social Action Plan (ESAP). The one exception is PS5, where the related gap analysis with applicable national law was included in the Project's Land Acquisition Plans (LAP).

Management Program:

21. MASEN has developed and implemented an ESMS that is structured on a risk-based assessment of Project-related activities and tasks, identifying appropriate risk mitigations and management actions as well as assigning responsibilities for implementation. It includes a grievance tracking and management system. Currently, MASEN's ESMS is fully developed and operational for the preparation, construction, and operation stages of the Project.

22. MASEN's ESMS obtained the certifications ISO 14001:2015 and OHSAS 18001:2007 for the Integrated Management System. These two certifications apply to all activities and sites managed by MASEN. All processes and procedures required by these standards are established and implemented (legal and regulatory monitoring, risk and impact assessment, control, audit, training, communication and public consultation, emergency management plans, management review, etc.).

23. The developers will be required to develop and implement a project-specific ESMS. As noted above, the FESIA provides for the developers' preparation and implementation of the SESIAs and SESMPs, as well as Health & Safety (H&S) Plans, in compliance with OHSAS 18001:2007, NEBOSH or similar. These plans will be subject to World Bank review and clearance. The SESMPs and H&S Plans will be implemented under the overall umbrella of the ESMS.

24. The developers will also complete a security risk assessment before construction begins. Mitigation measures will be formulated accordingly and included in the SESMP, and resources will be made available to implement these measures. All components of the FESMP, SESMPs and H&S Plans will be detailed in the SESIA and updated, as necessary.

Organizational Capacity and Competency:

25. Several of MASEN's cross-cutting units, fully staffed with full-time personnel, fully budgeted and operational, are contributing to ESMS implementation, such as Sustainable Development, Local Development, the Health, Safety and Environment (HSE) team, and other units under MASEN implicated in site management. MASEN's HSE staff are currently used to monitor construction and operation of the Noor-Ourzazate solar complex, but they are adequate in number and competence. The same HSE staff will be used during construction of the Noor-Midelt plants. The ESMS will be updated if required to meet the World Bank's Performance Standards and the applicable WBG EHSs for the energy sector. MASEN's organogram shows clearly

delineated responsibility for environment, health and safety. This has allowed the project enterprise to identify training needs for all staff, either at the “awareness” or “competency” level, and develop training schedules. The developers, still to be selected, will follow the same ESMS procedure.

26. The developers and their contractors will be required to hire experienced environmental and social specialists with international experience, as well as health and safety specialists which are OHSAS 18001:2007, NEBOSH or similar certified.

Public Consultation and Stakeholder Engagement:

27. Public Consultations MASEN held two public consultations, one on June 30, 2015 and the second one on March 10, 2016. Before the Public Consultations a Non-technical summary was distributed in 2 languages: Arab, French. Translation was provided in Arab, French and Amazighe. The most important questions raised were with regard to the environmental and social impacts of the project, the water use, employment and recruitment, land acquisition and compensation, social actions. Community level meetings were held to discuss further details of the Midelt I and II Plants-site LAP.

28. Environmental and social specialists from the World Bank team met with several project-affected people, local authorities, and other local and national stakeholders during site visits. These meetings confirmed that local people are well informed about Project impacts and the Land Acquisition packages. Community consultation during the preparation of the FESIA and the LAPs has been sufficient and culturally appropriate. The project is broadly supported by the local community.

29. Stakeholder Engagement Plan (SEP) and Grievance Redress Mechanism (GRM) The FESIA includes a description of MASEN’s Stakeholder Engagement Plan (SEP), which is currently under preparation and will be finalized by March 31, 2018, and the Grievance Redress Mechanism (GRM), including the names, email addresses and phone numbers of MASEN’s local development contact staff where grievances can be delivered. The SEP will include a communications strategy to manage community expectations and elements of the voluntary Corporate Social Responsibility (CSR) objectives of MASEN. SEP implementation will start in the second quarter of 2018.

30. MASEN and the developers are committed to ongoing community engagement during construction and operations, and to annual reporting to the local community on the project’s social, economic and environmental and social impacts. In addition to its own internal auditing, the MASEN will make arrangements for independent auditing of its social, environmental, health and safety performance on at least a bi-annual basis, and expects to use local experts to help communicate the monitoring results to local communities in a culturally appropriate and understandable manner.

31. The requirement for the developers and contractors to carry out public consultations will be included in the bidding documents and their contracts, and is expected to be reflected in the SESIA/SESMP, once they are prepared.

32. An information center will be opened on site after beginning of project construction. All inquiries are going to be registered by the person in charge of communications, and will be incorporated in the grievance mechanism and tracking database incorporated in the ESMS.

PS2: Labor and Working Conditions

33. This is a green-field project currently with a relatively small number of staff, mostly based in MASEN headquarters in Rabat, Morocco. Ongoing construction activities at this stage involve the site access road, with limited number of construction staff on site.

34. During construction, MASEN and the developers are expected to employ approximately 1500 personnel per plant at peak construction, comprising both direct and indirect workers. Of these, up to 3000 positions for both plants, 80% to 85% are expected to be locally sourced in Morocco, of which 30% are expected to be locally recruited from communities around the plants' sites, subject to availability of potential applicants with the necessary skill sets. Operation of the two solar power plants will require 200 to 300 workers (estimation based on the Noor Ouarzazate Solar Complex), including those to operate ancillary facilities. These estimates are based on the experience with the Noor-Ouarzazate solar complex, and will be updated for the Noor-Midelt as soon as actual data is available and an assessment is made of the availability of local skills.

35. MASEN developed a Human Resources Policy consistent with Morocco's labor regulations and PS2 requirements. The HR Policy includes provisions for working conditions; terms of employment; workers' organizations; non-discrimination and equal opportunity; grievance mechanism separate of the project GRM; prohibition of sexual harassment and of child and forced labor; adequate insurance for workers in case of accidents; retrenchment; and occupational health and safety. As per the ESAP, all workers will need to sign a Code of Conduct in which all responsibilities and prohibitions for workers have been described. The Code of Conduct will be required to prohibit sexual harassment, gender based violence, sex with minors and prohibition of child and forced labor, etc.

36. MASEN also developed an Employment Action Plan to maximize local participation in the direct and indirect employment opportunities provided by the project during construction, operation and closure phases. Objectives of the plan are to (i) engage relevant stakeholders to ensure transparency in employment; (ii) provide training to local people and thus maximize local employment and reduce influx to the project area; (iii) maximize participation by local and national contractors and vendors by establishing a local supply chain; and (iv) develop partnerships with educational institutes for development of skills required by the project among local and regional residents. MASEN has already started training programs in cooperation with national training institutes; apprenticeship training, once completed, results in a nationally recognized certification.

37. Influx of non-local labor into local communities during construction will have to be managed. It is expected that non-local labor will be living off-site in existing townships and travel daily to the construction site, so social risks to local communities should be moderate and manageable. The CESMP to be prepared by the private developers will include a Labor Influx Management Plan and, in case worker camps are going to be established, a Worker's Camp Management Plan, which identifies the risks of labor influx and camp workers and how these risks will be managed. Recruitment of local labor will be the responsibility of Agence nationale de promotion de l'emploi et des compétences (ANAPEC). The same approach as for the 3 Ouarzazate projects will be followed, which worked well. The nearest village is 7 km from the project site, which means that negative environmental and social impacts on villages will be limited.

38. As required by the ESAP, a workplace health and safety plan will be developed by the developers consistent with PS2 and relevant guidelines, covering all workers and subcontract labor involved in the project for the construction and operation phases. The health and safety plan objectives include (i) identifying all major health and safety issues at the project site and related to the project, (ii) designing a health and safety training for all employees, evaluation of training materials, (iii) requiring annual assessment of health and safety awareness, (iv) ensuring that all workers are fit for work for which they are conducted through a pre-employment medical examination and annual medical re-evaluations with counseling, (v) ensuring access to adequate healthcare facilities for its employees. MASEN will contract an occupational health team to assess occupational health risks at the project site and evaluate compliance with occupational health policies and health assessments periodically.

39. Employment during construction will generally be through short-term contracts. The private sector sponsors are expected to maximize local employment, subject to availability of potential applicants with the necessary skill sets, and give preference to local residents in hiring employees. As required by the ESAP, the sponsors will also ensure relevant requirements of PS 2 are applied to all contracted workers. Moreover, a GRM, separate from the Project GRM, will be prepared for plant workers. A Labor Influx Management Plan for direct and indirect workers and a Work Camp Management Plan will be part of the SESMPs, as required by the ESAP.

PS3: Resource Efficiency and Pollution Prevention

40. Pollution Prevention and Resource Conservation. The raw water treatment plant will be operated in compliance with non-polluting principles consistent with PS3 and the World Bank General EHSG of April 2007. Since water is a scarce resource in the project area the project's water storage facility will be designed to minimize the loss of stored water to evaporation and percolation. The project will be designed as a zero-discharge facility and incorporates significant reclaim of water from industrial processes. Project design includes recognized international industry practice as found in relevant WBG EHSGs. An assessment of the quantity of water available for construction and operations in the coming 50 years will be carried out as well as the potential impacts on other users by using the data in the KfW financed Water Resources Study as a consequence of Climate Change. Following the assessment of available water, a water management program will be developed and implemented.

41. Dust generation and vehicles are of particular concern. The existing ambient conditions are dusty during most of the year, and the scarcity of water discourages widespread use of water in dust control. Incremental increase in dust will be closely monitored. Steam generated from solar heat is used to turn the turbines. At expected average operating load, the GHG emissions discounted over the lifetime of the project in terms of CO₂ emissions avoided are estimated to be a little below 30,000,000 t/yr. The closest existing village is located at least 7 km from the thermo power plant, so that dust impacts on villages will be minimal.

42. Waste Management. Waste recycling will be undertaken as much as possible. Domestic and industrial waste will be disposed of in an environmentally acceptable manner. Hazardous wastes that cannot be recycled back to the suppliers will be disposed of in a designated, encapsulated landfill. Medical wastes, coming from the construction site clinic, will be collected and disposed of by qualified and authorized companies.

43. Plant Closure. Closure plans will be required one year prior to closure to restore as much as possible the project sites to their original state.

44. Water resources: The power plants are expected to be air-cooled, which significantly reduces water consumption. Nonetheless, some water use is still needed for cleaning mirrors, sanitation purposes, and other uses during construction and operations. KfW finances a Water Resources Study analyzing the impacts of Climate Change on the water availability, future water use trends and its impacts on other water users (this study will be available in first quarter of 2018). How this study will influence project design is presently not known and will depend on the results of the study. However, the amount of water needed is considered minimal, smaller than 1% or 1 million m³/year for the operational phase, in comparison to the Hassan II Reservoir storage capacity and annual replenishment rate, thus any potential impact from the plants' annual water use is expected to be commensurately minimal as well. The abstraction of 1 million m³/year has been authorized by the Agence du Bassin Hydraulique de la Region Moulouya (ABHM). The FESIA assessed that there were no impacts on other water users, such as drinking water supply and irrigation.

PS4: Community Health, Safety, and Security

45. Hazardous Materials The project will require the transportation of construction materials and equipment, fuel, reagents, and other supplies from likely the port of Nador to the project site at Midelt. The roads are paved and in very good condition all the way to the project site at Midelt. Some bridges might need to be upgraded to support the heavy equipment. The access road to the project from the main road will be upgraded to support the heavy equipment. No villages near the project site will be traversed by the heavy trucks.

46. Transportation risks and hazards to communities will be addressed as part of the Emergency Response and Contingency Plan, which will be part of the SESMP and are included in the ESAP requirements.

47. Emergency Response Plans. Emergency response plans and teams are included in the ESAP requirements and will be established to address reagent and fuel spills, fires, and accidents requiring medical attention.

48. Community Exposure to Diseases. Increased road traffic and dust, HIV and other sexually transmitted diseases due to population influx pose health risks to communities have been assessed as manageable, because the closest village is located at 7 km distance from the project site, however, these risks will be mitigated via a range of measures summarized below. A Community Health, Safety and Security Action Plan will be drafted as part of the SESMP and includes the following specific objectives/components: designing and implementing an HIV/AIDS awareness program, road safety strategy, hazardous material management strategies, and a plan for emergency response; developing and improving health services and health indicators in the project area in connection with the Community Action Plan; ensuring the project facilities are operated in accordance with relevant occupational health and safety guidelines. The developers will be required to work with the Community Communications Committee or a smaller subcommittee as well as representatives of communities and vulnerable groups which are susceptible to different health impacts of the project. Communication of risks, safety measures and impacts to the broader community and understanding stakeholder perceptions of risks and impacts is an essential part of this action plan. Comprehensive baseline information will also be constructed.

49. Infrastructure Safety. Safety of the Hassan II Dam is being regularly investigated. The Agence du Bassin Hydraulique du la Moulouya (ABHM) is responsible for dam safety aspects. The World Bank will review the latest Dam Safety Review to ensure that the safety of the dam is in compliance with international dam safety standards prior to Board approval.

50. Security Personnel. As required by the ESAP, project developers will carry out a risk assessment and prepare a security plan to address any potential risks to communities via best practice options, and it will be incorporated into the Community Health, Safety and Security Action Plan.

PS5: Land Acquisition and Involuntary Resettlement

51. The Project footprint of 4141 hectares includes no settlements, shelter or housing, no ground attachments, and no livelihood or income-generating activities, as the land is too far from villages (the closest settlements are located at a distance of 7km), unfit for pastoral activities, and has no water supply. The major sources of livelihoods in the other settlements/villages outside the project footprint are subsistence agriculture and remittances from migrants. 2714 ha is managed as communal land by the three ethnic communities of Ait Ouefla, Ait Rahou Ouali, and Ait Massoud Ouali, while around 1427 ha is declared as forest land and currently managed by the communities.

52. Social and economic surveys were carried out during the Land Acquisition Plan (LAP) 1, 2, and 3 preparation to establish a baseline data. No land acquisition is required for LAP 3, and LAP 2 requires land exchanges with the Department of Forest. It was identified that there will be no livelihood impacts due to the land acquisition. Scoping analyses were carried out in 2015 by

the client and consultants to identify national and local stakeholders. Consultations with representatives from the affected communities and local authorities were conducted to discuss and negotiate the land acquisition and compensation options. Compensation rates were established with the local communities and local authorities.

53. Project affected groups: No physical displacement will be required, and no ground attachments have been found on the site. The sandy and arid terrain allow only for small scrubs to grow, and the land is not suitable for agricultural development due to lack of water. The land acquisition for the project will have no impacts on the livelihood of local communities: as the land is having only very sparse vegetation, it is used only in a transitional manner for livestock grazing by transhumant non-local communities. Transhumance occurs only along the river crossing the site, along which a corridor will be kept open that can be used for livestock. Local population confirmed the low intensity of use for only temporal pastoralist activities. The area to be acquired covers around 10% of the available land of the communities, but much less in terms of income-generating assets.

54. Three Land Acquisition Plans, have been prepared by the client as due diligence for the land acquisition prior to project appraisal (Midelt I and Midelt II Plants-site LAP (LAP 1) dated July 2017, Access Road-site LAP (LAP 2) dated July 2016, and Water Pipeline-site LAP3, dated July 2017). The Midelt I and Midelt II plant sites require the acquisition through expropriation from local communities and transfer from a government institution (Department of Water and Forests) of the land in the project footprint. No land acquisition was necessary for the access road, as existing right of ways with no encroachment or other use were used. Land acquisition for the water pipeline site required the transfer of the land between a government institution (Department of Water and Forest) and the client, for land equally not under use for any livelihood activities. The LAPs incorporate a site-specific GRM, including address, phone number, and physical access on the site.

55. The land acquisition for the Midelt Plant I and II sites follows national laws and regulations on expropriation, and is in line with the requirements of PS5. The compensation standards and principles have been established during consultation with the communities. As local livelihoods or housing are not impacted, the negotiated rates are covering all expected impacts by the land acquisition. The land for Midelt I and Midelt II Plants was acquired permanently by MASEN through an expropriation process. The land is split into five plots, for three of which, totaling 1427 ha, the compensation is requested fully or in part by the Water and Forests Administration.

56. MASEN had started the land acquisition process through willing buyer – willing seller arrangements by negotiating rates for the land acquisition with the communities, and agreements on the cessation of ownership to MASEN and the price per hectare have been reached in early 2016. As of January 2018, the attribution of the compensation payments for the different plots constituting the site was contested in court between the local communities, the Water and Forest administration, and individuals in the communities. Given the legal contestation, MASEN started land acquisition through expropriation under the national laws and regulations. For the expropriation process, the compensation rates agreed upon during negotiations with the communities were used. The expropriation was granted in favor of MASEN by administrative court decision in January 2017, and the court decision publicly disclosed in March 2017. MASEN

is therefore in undisputable ownership of the land for the project sites. Cadastral inscription in the name of MASEN for two plots has been finalized as of December 2017, and is expected to be finalized for the remaining three plots in the first quarter of 2018. As of December 2016, the full compensation payments have been transferred to an escrow account awaiting the outcomes of the court decision and their final attribution.

57. Should the compensations be awarded to the communities, the funds are expected to be provided to the Direction des Affaires Rurales (DAR) as was done for the Noor-Ouarzazate solar complex. DAR is mandated to work with the local communities and the use of the funds will be decided by the affected communities to fit their needs. The local communities have 3 options: i) use for small community driven economic development projects, which fit the needs of the PAPs; ii) the funds are kept at the DAR account until enough funds are available for the financing of a small community driven economic development project; and iii) the funds are distributed to individual PAPs according to their losses, if the community desires this. Although MASEN has no authority over the process, the use of the compensation and the decision-making process will be monitored by MASEN as required under the ESAP.

58. A LAP for the acquisition of private, public, and communal land for the Transmission Line-site, which is an associated facility, is currently under preparation by ONEE (the utility responsible for construction and operation of the transmission line), as the detailed design and corridor for the transmission line are still under preparation. The LAP will be consulted on, submitted to and approved by the World Bank, and disclosed in-country and on the World Bank's website, prior to the start of civil works on the transmission line. The Transmission Line-site LAP will include a baseline of land and economic activities, estimates of the impacts and census data, consultation mechanisms, a GRM, description of compensation standards and source and utilization of funds, and other elements required. The Transmission Line-site LAP will not allow civil works on sites that have not been properly compensated under the LAP. Implementation, monitoring, and reporting on the Transmission Line-site LAP are included in the ESAP as requirements.

59. Monitoring mechanisms: Monitoring of the land acquisition impacts and the implementation of the LAP 1, 2 and 3 will be undertaken by MASEN's ESMS and included in regular project reporting. Monitoring of the Transmission Line-site LAP will be undertaken by ONEE and reported to MASEN, to be included in the regular project reporting to the World Bank. A Land Acquisition Completion report will be prepared by MASEN, including all three MASEN LAP and the Transmission Line-site LAP, after completion of all LAP-related activities, and submitted to the World Bank.

60. Local development efforts: MASEN has a voluntary Corporate Social Responsibility Programs (CSR), including a Local Development Plan for which the activities are established on an annual basis in close collaboration with the communities. Elements of the CSR program may be included in the Stakeholder Engagement Plan (SEP). MASEN is solely responsible for the implementation of its own CSR program and the project sponsors are responsible for their CSR program. MASEN and project sponsors are committed to improve social and physical infrastructure for communities living close to the project footprint as part of their CSR. Local development strategies will be developed through needs assessment and communities' participation. The physical infrastructure may include water supply and sanitation facilities to

improve the living conditions of the communities. In addition to water, education is among the priorities.

PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources

61. Biodiversity assessments of fauna and flora was conducted as part of the FESIA. The plains where the Project site is located are arid in nature and have a low biodiversity values, with only a few flora and fauna species. No protected areas or critical habitat were identified in the Project's area of influence.

62. Impacts to terrestrial or aquatic habitats, including flora and fauna, are assessed to be minor. The most significant impacts are expected related to land use change from conversion of natural desert like natural habitat with almost no vegetation, mainly due to habitat loss as a result of construction of facilitates and establishment of shaded areas under the rows of modules. Minor assessed impacts to fauna are expected related to disturbance from works, installation of a fence around the Project site restricting movement of fauna, and impacts to birds as a result of collisions and heat flow from CSP towers.

63. Of the 82 bird species recorded in the wider project area, all except two are identified as of "minor concern", one is according to the IUCN Red List Vulnerable (*Chlamydotis undulada*) and the other is Endangered (*Neophron percnopterus*). The impact on these two species has been assessed as minor. The latter species is a migratory vulture species, which is a species that engages in gliding flights at high altitude and is assessed to likely avoid the Project site.

64. Potential impacts to biodiversity will be managed during construction through establishment and implementation of an environmental preservation policy that prohibits workers to perform unnecessary clearings and intentionally interfering with wildlife and management plan to ensure the minimization of impacts generated by the mobilization of equipment and personnel.

65. Biodiversity impacts during operations are proposed to be managed through adaptable fencing design with openings sufficient to encourage the movement of terrestrial wildlife, equipping power lines with beacons use of a visual scaring system on supports to minimizing the risk of birds collisions, and potential reduction of the flow of solar radiation during the standby position of the mirrors. Bird monitoring will be done twice a year (Autumn and Spring) during the first year of operation of the complex in the vicinity of the power line.

PS8: Cultural Heritage

66. The project site, including the project infrastructure areas were studied as part of the FESIA. The nearest cultural heritage site is located 3 km from the project site. The procedures followed so far are consistent with PS8 provisions. "Chance Find Procedures" of PS8 will apply during the construction phase and will be incorporated in contractor and subcontractor bidding documents.

Access to Client Documentation

67. The FESIA and the LAPs have been posted and are available on the client's project website at www.masen.ma and on the World Bank website www.worldbank.org. Documentation is also available through MASEN directly, at MASEN's offices, including in on-site offices and the information center.