

# Managing environmental and social impacts



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The development of solar projects has environmental and social impacts. In alignment with Scatec Solar's policies, requirements of local legislation, and our commitment to international standards and best practices, we endeavour to minimise our negative impacts and to maximize local benefits in positive dialogue with project stakeholders.

## Our achievements and results in 2018

We are committed to operate all our projects in line with the IFC's Performance Standards and the Equator Principles. According to the Equator Principles, all projects under construction in 2018 fall under "Category B" projects, meaning that they have "potential limited adverse social or environmental impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures".

## How we manage our environmental and social impacts

Our project activities are conducted in accordance with local laws, corporate Company policies, and requirements defined by international standards including the IFC's Performance Standards and the Equator Principles for specific areas of impact including labour and working conditions, pollution prevention, community health and safety, land acquisition and involuntary resettlement, human rights, biodiversity conservation, indigenous people, and cultural heritage. In 2018, we have worked to strengthen our corporate Environmental and Social Management System (ESMS) by reviewing our processes and management plans in accordance with the IFC's

## Our policy

- Develop and implement all projects in accordance with the IFC's Performance Standards and the Equator Principles
- Conduct environmental and social impact assessments and additional ESG due diligence if significant matters are uncovered in initial impact assessments
- Integrate environmental, social, and governance considerations in project development tools and processes
- Design systems and services to minimise the environmental impact, with an emphasis on protecting the local environment

Performance Standards and the Equator Principles. This work will continue in 2019.

In all our projects, we follow a standardized process for identifying, mitigating, and monitoring our potential risks and impacts. This work forms part of our overall Environmental and Social Management System (ESMS). Key elements of the process are outlined next page.

## Project classification according to the Equator Principles:

**Category A:** Projects with potential significant adverse environmental and social risks and/or impacts that are diverse, irreversible or unprecedented

**Category B:** Projects with potential limited adverse environmental and social risks and/or impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures

**Category C:** Projects with minimal or no adverse environmental and social risks and/or impacts

# Environmental and Social Management System

## ESIAs

### Environmental and Social Impact Assessments

*Assessments of potential environmental and social impacts from activities during the development, construction, and operations phases of a project*

For all our projects we conduct environmental and social impact assessments (ESIAs) and diligence assessments to identify potential environmental and social impacts from our activities.

In 2017, we developed ESIAs for our projects in Brazil, Egypt, and Nigeria and in 2018 for our most recent project in Malaysia.

We also performed Environmental and Social Due Diligence Assessments for two projects in Ukraine.

## ESAPs

### Environmental and Social Action Plans

*List of environmental and social actions/measures to reduce impacts identified during the initial assessments (ESIAs) with responsibilities and deadlines*

For all our projects, the next step is the establishment of Environmental and Social Action Plans (ESAPs) based on initial Environmental and Social assessments.

The ESAPs are often developed in close dialogue with project and financing partners and usually include the following items:

- Corrective actions/measures
- Purposes of actions
- Responsibilities
- Status / progress
- Timeline

## Monitoring & Reporting

### Monitoring & Reporting

*Regular monitoring and reporting internally in project teams and externally to project and financing partners*

All our projects have regular Environmental and Social monitoring and reporting procedures in place. Important monitoring measures include:

- Regular site inspections
- Environmental and social internal audits and external audits by third parties
- Regular environmental and social monitoring visits and status reports by lenders
- Project reports reviewed in biweekly management meetings and monthly Board of Directors meetings



## Our main impacts

The degree and types of impacts caused by solar projects vary from project to project based on several factors such as site location, environmental characteristics of the site, and distance to settlements. Most of the environmental and social impacts occur during the development and construction phases of a project.

Noise, air emissions, solid waste, waste water generation, and increased transportation to and from the site area are typical impacts during the construction phase of a project. Each of these impacts is monitored and mitigated by implementing specific management plans. Other examples of main impacts are presented over the following pages.

### Human rights

Scatec Solar respects human rights and recognises our responsibility to avoid infringing rights of employees, local communities, and other stakeholders wherever the company operates. In line with the IFC's Performance Standards, we acknowledge that certain groups might require particular attention in relation to human rights risks (indigenous people, minorities, and vulnerable groups), and we work to mitigate any adverse effects by employing specially designed measures. Meaningful consultations with affected communities and other stakeholders on a regular basis and a well-functioning grievance mechanism that local communities trust are the

main tools for continuous review of risks and for development of appropriate mitigating actions.

Scatec Solar recognises land acquisition as an important process that can impact local communities and place the rights of affected people at risk, unless diligently implemented. The risk is particularly high when physical and/or economic displacement cannot be avoided. In such situations, we follow strict requirements of the IFC's Performance Standards to address and mitigate impacts by developing and implementing resettlement and livelihood restoration plans that require establishment of long-term monitoring mechanisms. Our target is always to ensure that the affected local households are assisted in adapting to the new situation and restoring their livelihoods to pre-project standards at a minimum.

Scatec Solar sees labour management and ensuring good working and living conditions for its own and subcontractors' workers as a priority area for all projects during the construction phase. By developing management plans for labour recruitment, training, and accommodation and by conducting regular inspections, the goal is to ensure continuous compliance with IFC's Performance Standards and to avoid any practice harmful to workers' rights.



## Livelihood Restoration Programme in Mozambique

**Background:** The Mocuba project resulted in an economic displacement of 223 households. The acquisition of land and the obstruction of access to natural resources required mitigating actions to address the loss of income sources and means of livelihood.

**Compliance:** Mozambican law and recommendations in line with IFC Performance Standard 5 for projects involving economic displacement.

**Target:** To ensure that local households are assisted in adapting to the new situation and in restoring their livelihoods to pre-project standards at a minimum.

**Mitigation:** Development of a Livelihood Restoration Plan and a Simplified Land-use and Compensation Plan. A survey in combination with stakeholder engagement identified eligible households and provided agricultural land and monetary compensation for the loss of crops in the local community. The Livelihood Restoration Plan included the following:

### **Agricultural activity support Programme**

Providing seeds and tools, yield measurement, training in post-harvest handling and storage of produce, evaluating the level of adoption of promoted technology, and governance training.

### **Domestic awareness**

Training in business planning and management, savings and loan procedures, and follow-up with involved groups.

**Status:** Successfully implemented the Livelihood Restoration Plan. A separate plan for the most vulnerable project-affected people is still ongoing because additional support and training were needed to make sure conditions are left at pre-project standards or better. Both programmes are being implemented under regular supervision and monitoring of Scatec Solar and third-party experts.





### Human rights and security management

Scatec Solar engages security personnel at its operational sites to protect employees, assets, and local communities close to the company's projects and plants. This is also an area that requires awareness and compliance with international standards. All plant-based security personnel are subcontracted from a third party but are considered part of our plant teams. We recognise the risk of misconduct, and we try to mitigate this risk by training security staff on human rights and Company policies.

Approximately 60% of security personnel contracted by Scatec Solar globally have been trained in principles related to human rights. The training is conducted annually. We are currently working to review and further develop our training offerings relating to human rights to ensure that all our security teams globally receive such training.

### Water usage

Water is a scarce resource in many areas, and therefore is an important aspect of our environmental management, particularly in the operation phase. One of our targets for 2018 was to start reporting on water withdrawal by source and volume in projects located in water-stressed areas. Accordingly, a closer review of volumes of water used at all our operational plants took place in 2018 to monitor each plant's water-use performance and to avoid any negative impact on local communities if there is any reliance on the groundwater in water-stressed areas.

Water conservation awareness, minimizing water use for dust suppression by maintaining road conditions, and monthly monitoring for identifying causes of abnormal volumes are among the management considerations implemented at all our plants.

Our main use of water is linked to cleaning modules. Different water supplies are used for our projects at different locations, including groundwater and tanked water from municipal water networks. The amount of water needed depends on vegetation, module soiling, natural cleaning due to precipitation, and cleaning method. Efficiency is sought by cancelling unnecessary washing cycles and using effective washing methods like spraying. We are looking into possibilities of dry-cleaning techniques for our plants in Egypt that are currently under construction.

Amongst our plants, Linde, Kalkbult, and Dreunberg in South Africa and Oryx and Ejre/Glae in Jordan are in areas of medium or high water risk defined by World Resources Institute's "Aqueduct Water Risk Atlas". In South Africa, the source of water is groundwater. Boreholes are located close to the plants which are surrounded by only livestock farming activities, with no nearby settlements. Water-use licences for each facility are issued by the Department of Water and Sanitation, depending on the aquifer's size and other uses. Water volumes withdrawn for our plants are considerably below the volumes authorised by the licences.

## Regular biodiversity monitoring in Honduras:

- Monthly biodiversity inspections were conducted at our 60 MW Agua Fria project in Honduras during 2018.
- Various native faunal species were recorded at the site, such as skunks, rabbits, iguanas, snakes, and different types of birds.
- Faunal behaviours like reptiles' shedding of skin, birds' courtships, feeding, vocalising, nesting, and incubation were also evident within the premises.
- The presence of these animals on site infers that the ecosystem within the plant supports them and that their habitats have not been significantly altered.



### Biodiversity

Installing solar parks requires land-clearing, which might impact biodiversity by causing loss of habitats and disturbance of species. Biodiversity assessments are therefore part of baseline impact and Environmental and Social Due Diligence assessments. If an impact is unavoidable, we implement measures to minimize impacts and restore biodiversity. Habitat enhancement and creating new conservation areas are options to be considered whenever impacts cannot be fully mitigated. In Honduras for example, we carried out monthly biodiversity inspections during 2018 for the Agua Fria project and a bird monitoring campaign totalling 100 hours of observation for the Los Prados project.

### Carbon footprint

By providing clean electricity, our solar plants contribute to reducing greenhouse gas emissions in every country where we operate. However, we acknowledge that our own operations and the construction of our solar plants produce greenhouse gas emissions.

One of our 2017 targets was to improve the quality of our Company's reporting of greenhouse gas emissions. In 2018, we started preparations to report to the Carbon Disclosure Project (CDP) with a timeline of completion by May 2019.



CDP is a global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.

EMISSIONS REPORTING		2018 TONS OF CO <sub>2</sub> EQUIVALENT <sup>1)</sup>
<b>Scope 1: Total direct CO<sub>2</sub> emissions</b>		<b>4,886.5</b>
From offices and sites		840.1
From vehicles		4,046.4
<b>Scope 2: Total indirect CO<sub>2</sub> emissions from purchased electricity and heat</b>		<b>1,196.9</b>
Location-based		1,196.9
Market-based		1,247.0
<b>Scope 3: Total other indirect CO<sub>2</sub> emissions</b>		<b>4,328.5</b>
From air travel		4,328.5

1) See appendix, section 3, for a detailed description of the methodology used.

DNV·GL

# VERIFICATION STATEMENT

Issue date: March 26, 2019

## Verification of CO<sub>2</sub> emissions for Scatec Solar ASA 2018

The purpose of this document is to clarify matters set out in the process of verifying CO<sub>2</sub> emissions for Scatec Solar ASA. We do not accept or assume any responsibility or liability on our part to CDP or any other party who may have access to this letter or related documents.

Scatec Solar ASA commissioned DNV GL Business Assurance Norway AS to provide an independent third-party limited assurance verification for 2018 of their worldwide operations for CDP reporting. ISO 14064-3 has been used in this work. The scope of the work included:

- Scope 1 CO<sub>2</sub> emissions (ref. CDP report point C 6.1)
- Scope 2 CO<sub>2</sub> emissions (ref. CDP report point C 6.3)

The verification was conducted in March 2019 and included document review, interviews with personnel at the main office, review of calculation methods, routines (gathering, aggregation and consolidation) for activity data used in the calculations. The scope for 2018 included Scatec Solar activities in 10 countries. Aggregated emissions data:

Scope 1: Data as reported in C 6.1.:

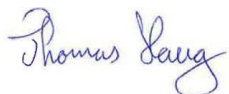
**Total CO<sub>2</sub> scope 1 emissions: 4 886,5 metric tonnes CO<sub>2</sub>**

Scope 2: Data as reported in C 6.3:

**Total CO<sub>2</sub> scope 2 emissions (location based): 1 196,9 metric tonnes CO<sub>2</sub>**

The verification is done with limited assurance. During the verification, nothing has come to our attention that causes us to believe that the reported CO<sub>2e</sub> emissions for Scatec Solar ASA in the mentioned countries are not fairly stated.

Place and date: Høvik, March 26, 2019  
DNV GL BUSINESS ASSURANCE NORWAY AS

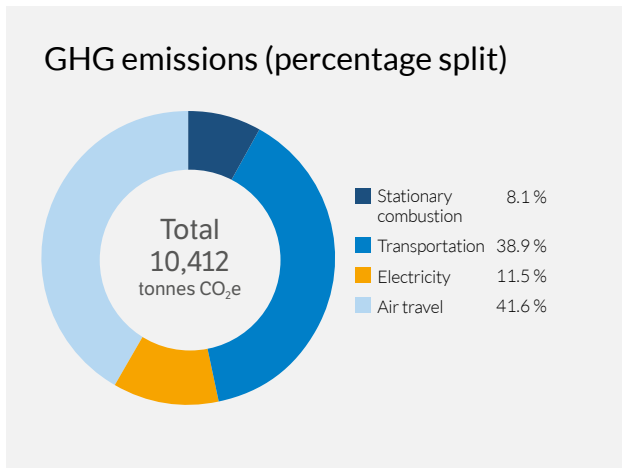


Thomas Haug  
Technical reviewer



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Lead Verifier





This reporting will lead to more transparency on how we manage climate-related risks and opportunities, as well as emission-related targets and performance. The total greenhouse gas emissions from our activities in 2018 were 10,412 tons of CO<sub>2</sub> emissions. This total includes scope 1 emissions, market-based scope 2 emissions and Scope 3 emissions from air travel

Given the international nature of our company's business and operations, we are aware of our significant footprint related to air travel and local transportation. We aim to reduce this figure. 2018 was the first year we produced a complete carbon footprint, and considerable effort was made to ensure data quality and understand emission sources. In 2019 we will use this knowledge to develop a climate strategy with concrete reduction targets and programmes.

Furthermore, we are aware of the industry efforts to address climate risk and we intend to implement measures towards more comprehensive climate risk disclosures, based on the recommendations from the Task Force for Climate Related Financial Disclosures (TCFD). We enter into local communities for 20–25 years and it is important to try to foresee and evaluate potential climate related risks to and opportunities for our people, business, and physical assets. The most serious climate-related risks relates to the physical impacts of extreme weather, including droughts and floods. We work to have procedures in place to evaluate potential climate effects related to our sites, and develop mitigation plans where necessary.

Simultaneously, we see substantial opportunities related to the solar energy industry in the transition to a low-carbon economy. Technology is developing rapidly, enabling solar panels and other equipment to become more efficient and competitive. We take advantage of the emissions reductions resulting from our solar plants in operation

and our projects continue to be registered with the United Nations Framework Convention on Climate Change (UNFCCC) for verification and certification of electricity generation. This displaces fossil-fuel use, leading to improved access to climate finance and lower-cost implementations for solar projects.

### Stakeholder engagement

For all projects, dialogue with a broad range of stakeholders, including the local communities, is commenced at the early stages of a project. Such dialogue provides a better understanding of a project's impacts and ensures that inputs are integrated into the project development process. Engagement with local communities is a continuous process during the entire life of a project. The objective is to identify and mitigate impacts and to maintain a good relationship based on openness and trust. Stakeholder engagement plans are developed for all projects. These plans specify the requirements regarding consultation needs, frequency of consultations, and methods of communication. The work of a locally appointed Community Liaison Officer to bridge the dialogue between the local people and the project is central to success of the project. Grievance mechanisms are also established at all projects as a channel for continuous communication and facilitating opportunities for Scatec Solar and communities to identify challenges and develop solutions together.

### Our ambitions and goals

We will increase our efforts to further strengthen and standardize our corporate environmental and social management system (ESMS) for all projects. In addition, we have the following key targets for 2019:

#### Environmental and social compliance

- Target 100% reporting of non-compliance across all projects
- Create follow-up plans with deadlines for all non-compliance across projects

#### Human rights

- Develop a corporate policy on human rights in line with the Universal Declaration of Human Rights
- Integrate human rights aspects into the standardized training for all our managers, community liaison officers, and security personnel globally

#### Climate action

- Increase annual tons of CO<sub>2</sub> emissions avoided by our solar plants by 500,000 by the end of 2019
- Start to report to the Carbon Disclosure Project (CDP) in 2019