



# GGGI Sénégal: Fact Sheet

Solar PV electricity for agricultural development

# Challenges

In a 2013 study, the Ministry of Water and Sanitation noted that diesel, at 54% of the total, was the principal energy source for pumping, with the electricity grid accounting for 29% and solar PV at 7%. It is also mentioned that water rates vary from one site to another and one region to the other: **there was no uniform pricing policy.** 

The study also outlined that the average consumption of diesel oil per m3 of produced water at 0.2 liters and electricity consumption per m3 of produced water being estimated at 0.705 KWh.

Noting this prominence of imported hydrocarbons and wood in the prevailing energy production-consumption mix in Senegal, this Project will design a bankable project on the provision of solar PV to support the development of commercial agriculture

# Approach

The Project will be introduced to project developers (e.g., current agricultural machinery suppliers/distributors) and sources of funding (e.g., Financial Institutions,).

Likely users include: (i) private companies or other organizations or state entities active in agricultural entrepreneurship; (ii) commercial farming operations; (iii) and farmers' organizations. A comprehensive review of likely users, by scale, will be done once the Project is underway. Field surveys have revealed that for potatoes, for example, the cost of fuel used to pump water into the valley is about one quarter [25%] price on the market. This partly explains the lack of competitiveness of local horticultural products compared to imported products produced with more efficient energy systems.

#### Business model

Potentially, the business model will be centered on a financing structure being created in which the solar PV equipment is held by an entity (e.g., a lender or a special purpose vehicle) that enters into a contract with one or more solar PV providers (project developers). In turn, the project developer(s) contracts the use of the solar PV equipment to agricultural producers. The producers' credit payments for the agricultural produce they sell to their accounts held at the entity which debits agreed amounts, thereby amortizing the solar PV. Creditworthy purchasers of produce from established agricultural producers will thus be the primary repayment source, where those payments are hypothecated to the entity. Investment teaser

Design and costing of the Project will require inputs from several key stakeholders from the Private and Public sectors and also farmers' organizations.

### Activities

The involvement of GoS ministries and agencies will ensure both continued commitment to, and the provision of technical expertise to design and cost, the Project. Once the design and costing has been finalized, an investment teaser will be produced for distribution to possible project developers and funding sources.





# **Overall Goals**

The Project's objective is the introduction of solar PV to substitute diesel-powered pumping sets and/or where electrical pumping is currently absent and/or back up national grid sourced power (mostly hydrocarbon). The Project will thereby contribute to GHG emission reduction (SO1), and to generating foreign exchange savings on reduced diesel imports.

# **Implementing Partners**









## **Results to Date**

Following the signing of Non-Disclosure Agreements, project developers and funding sources that express interest in the Project will be provided with an Information Memorandum (IM). The IM will contain full project details which, at this point, are seen including; a detailed description of the project (e.g., identification of project location/s, choice of technology to be employed and the identities of project stakeholders); a description of funding needs; a financial model; investment incentives; and a risk analysis. In addition, the IM will reference the significance of the Project in relation to GoS plans, policies and strategies, as well as intended contributions to climate mitigation and economic returns. The Project will conclude at the point at which Letters of Intent are received from project developers and funders. The resultant bankable project will have positive impacts on climate

resilience (adaptation and mitigation), economic growth, environmental sustainability, gender equality, poverty reduction and social inclusion.

