



Scatec Solar @ Oslo Project Symposium

27th August 2019

Roar Haugland - EVP Sustainable Business & HSSE



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- **Introduction to Scatec Solar**
- **The Solar Project Approach**
- **A case study**



Our Vision

Improving our future

Our Mission

To deliver competitive and sustainable solar energy globally, to protect our environment and to improve quality of life through innovative integration of reliable technology

Our Values

Predictable
Working together
Driving results
Changemakers

Operating across the globe



Scatec Solar “early milestones - The “EPC” era

- 2001 First megawatt sized solar park in Germany (1.6 MWp) and world’s largest solar powerplant (4 MWp)
- 2004 2nd time world record (6.3 MWp)
- 2005 US-award "Best Renewable Project of the Year" market entry into the roof top PV business
- 2007 Construction of 5 solar power plants (11.46 MWp)
- 2008 First large scaled roof tops (700 and 800 kWp) market entry / project development in Czech Republic, Italy, USA, India
- 2009 Market entry / project development France and first installation in Czech Republic, Italy, USA, India
- 2010 Market entry China and South Africa

Five of our solar parks:

Pfeffenhausen (4.5 MWp), Koppenzell (1.85 MWp), Mühlhausen (6.4 MWp), In der Kultur (3.3 MWp), Granswang (1.7 MWp)



What we do today

Pictures from Aswan Egypt- the world largest PV site



Ben Ban overview

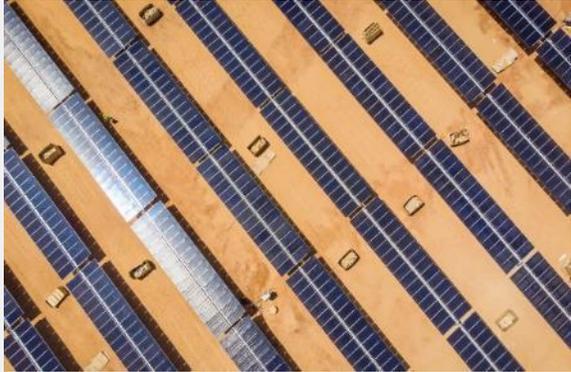


A portfolio of 911 MW in operation – track record of 1 GW+

Malaysia, 197 MW



Egypt, 195 MW



Brazil, 162 MW



South Africa, 190 MW



Honduras, 95 MW



Jordan, 43 MW



Czech, 20 MW



Rwanda, 9 MW



Scatec Solar's average economic interest: 61%

A portfolio of 1 GW under construction on four continents

Ukraine, 336 MW



South Africa, 258 MW



Egypt, 195 MW



Argentina, 117 MW



Malaysia, 47 MW



Mozambique, 40 MW



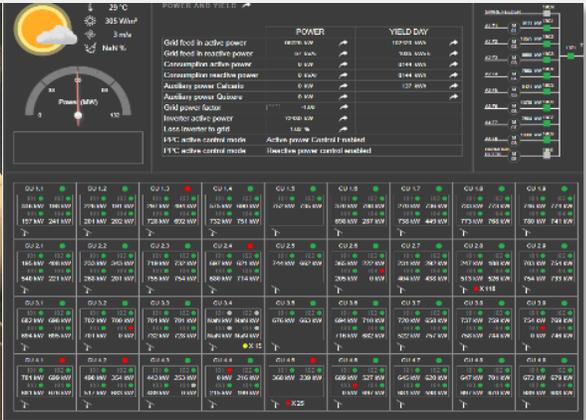
Scatec Solar utilises new technology to improve power plant performance

Bi-facial solar modules, Egypt

- The world’s largest solar park with bi-facial modules
- 400 MW / 870 GWh annual production
- Test station established on site

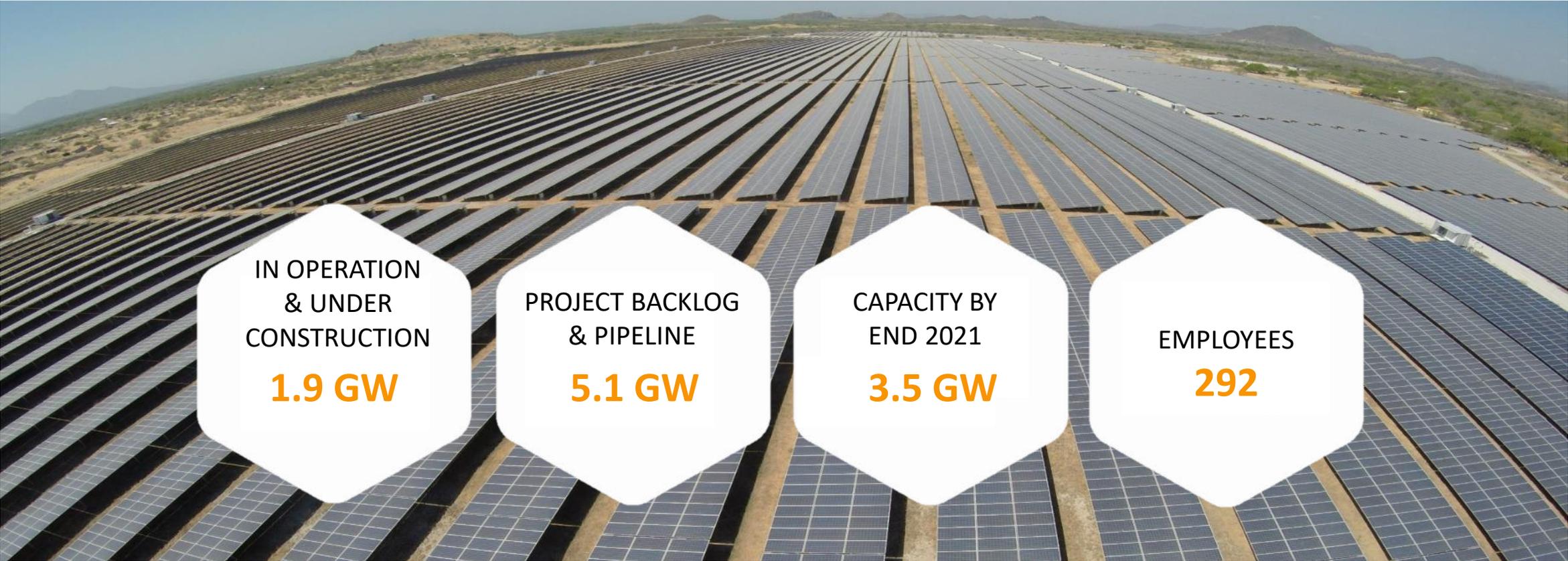
Global control & monitoring centre, Cape Town

- Real-time data from all plants globally 24/7
- Improving operational quality and efficiency
- Increasing uptime and production yield



Scatec Solar – a frontrunner in renewable energy

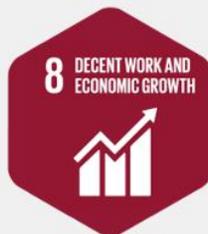
We develop, build, own and operate utility-scale solar power plants



Creating a sustainable business in a high risk market

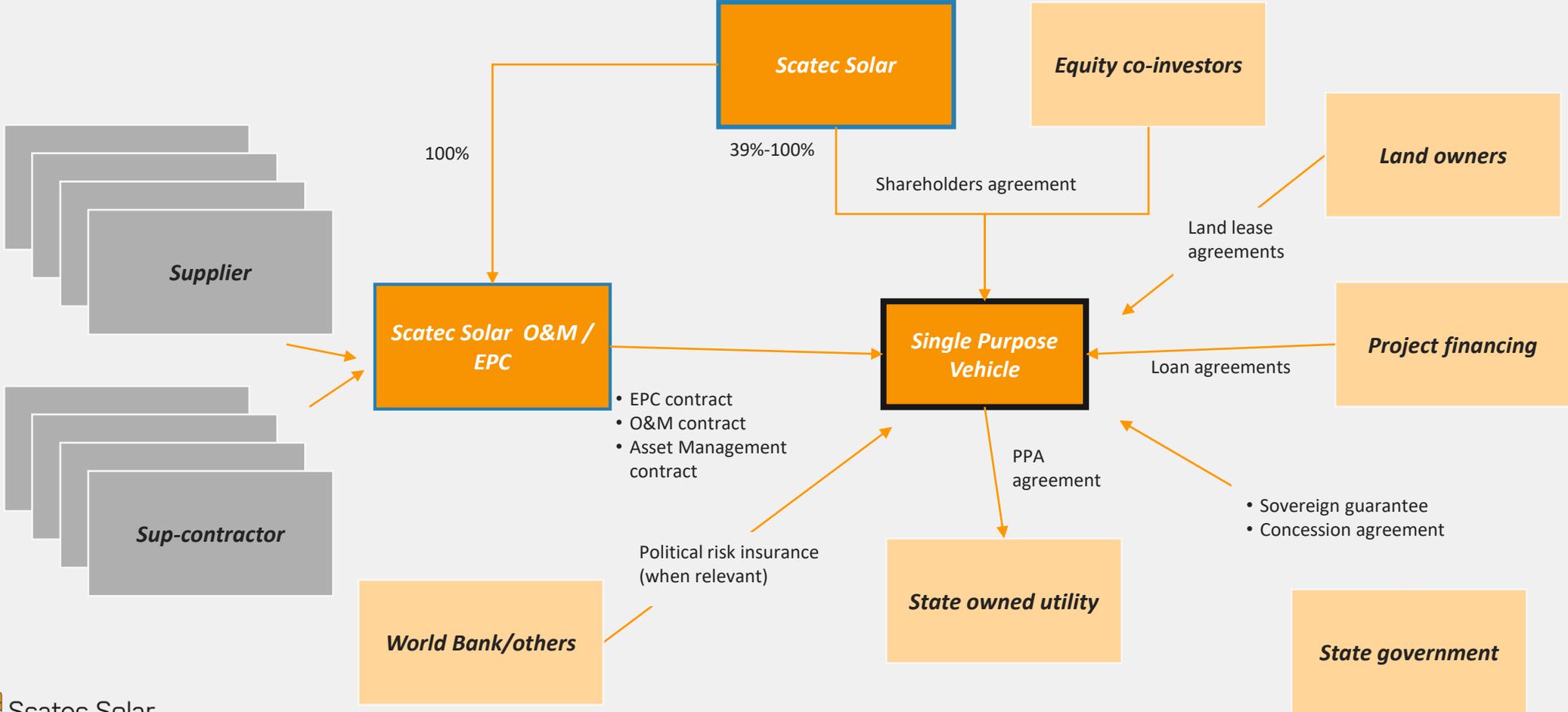
Why sustainability is good business

- Ensures stable operations and investor return
- Creates long lasting local engagement and good relations
- Lowers physical security need
- Enables compliance with international standards (IFC PS/EQ P) being a pre-requisite to attract DFI financing
- Makes us attractive for competitive and strong financing partners
- Gives a competitive advantage



Our business model and typical project structure – the integrated model

Simplified illustration of company structure and main contracts in place



A systematic approach to risk review assessment and mitigations



Origination

Decision Gate



Development

Decision Gate



Structuring

Decision Gate



Delivery

Decision Gate



**Power production
O&M**

RISK ASSESSMENT

- Market / Framework
- Partners
- Stakeholders
- Permits/licenses/PPA
- Land
- **ESG**
- **HSSE**

- Procurement
- Environmental and Social Impact Assessment

- Financing
- Tax
- ESAP

- Construction Site
- Local sourcing
- Personnel
- Logistics
- Customs
- ESAP
- HSSE

- New risk assessment
- Actions / Continuous monitoring
- ESAP
- HSSE

Overall Country Risk Assessment

RISKADVISORY

SIAS SECURITY INTELLIGENCE AND ANALYSIS SERVICE

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SECURITY RISK	REGIME INSTABILITY	CIVIL CONFLICT	INTERSTATE CONFLICT	CIVIL UNREST	TERRORISM RISK	TERRORISM THREAT	GENERAL CRIME	ORGANISED CRIME	KIDNAP	STATE AGENCIES	CORRUPTION	GEOPHYSICAL HAZARDS	INFRASTRUCTURE	MEDICAL & HEALTH	ROAD SAFETY	LGBT+ DISCRIMINATION
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5	5	5	3	3	3	3	4	4	3	5	4	4	5	5	5	4

ESG Risk Assessment prior to market entry



All projects must adhere to IFC's Sustainability Framework and the World Bank Equator principles.

ESIA

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

ESAP

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

Monitoring & Reporting

Monitoring & Reporting
Regular monitoring and reporting internally in project teams and externally to project and financing partners

Partnership-based project origination

Development Partnerships

Norfund

AFRICA 50
FINANCING AFRICA'S INFRASTRUCTURE
POUR LES INFRASTRUCTURES EN AFRIQUE

equinor

IFC | International
Finance Corporation
WORLD BANK GROUP

InfraCo
AFRICA

Large regional partners

- Access to opportunities
- Size and credibility
- Financing
- Access to authorities
- Replicate business

Local partners

- Early development
- Land and permitting
- Understanding local conditions

Financing Partnerships

European Bank
for Reconstruction and Development

FMO
Entrepreneurial
Development
Bank

IFC | International
Finance Corporation
WORLD BANK GROUP

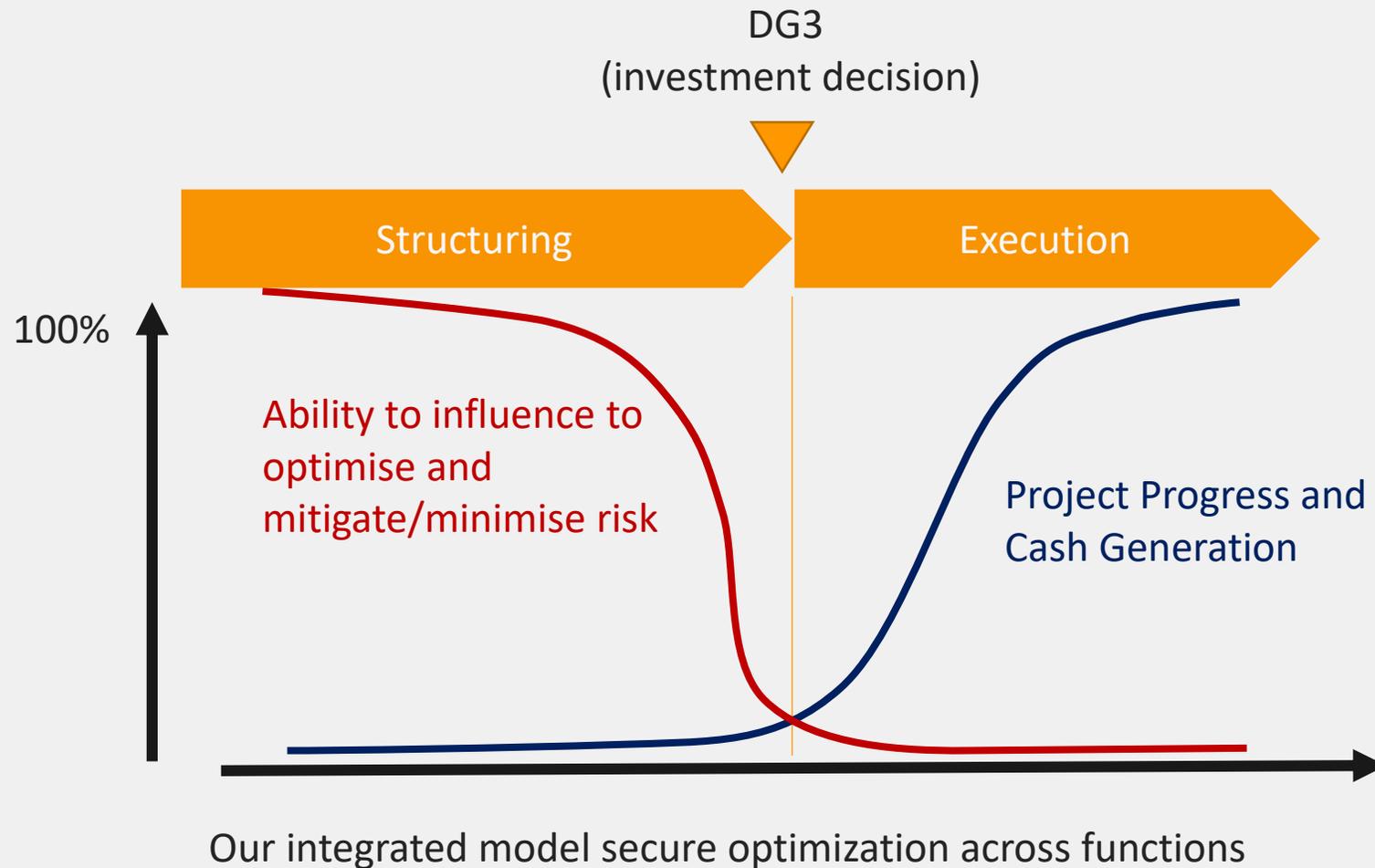
BANQUE AFRICAINE DE DEVELOPPEMENT
AFRICAN DEVELOPMENT BANK

EMERGING AFRICA
INFRASTRUCTURE FUND

بنك التنمية الاقتصادية
AFRICAN DEVELOPMENT BANK

PROPARCO

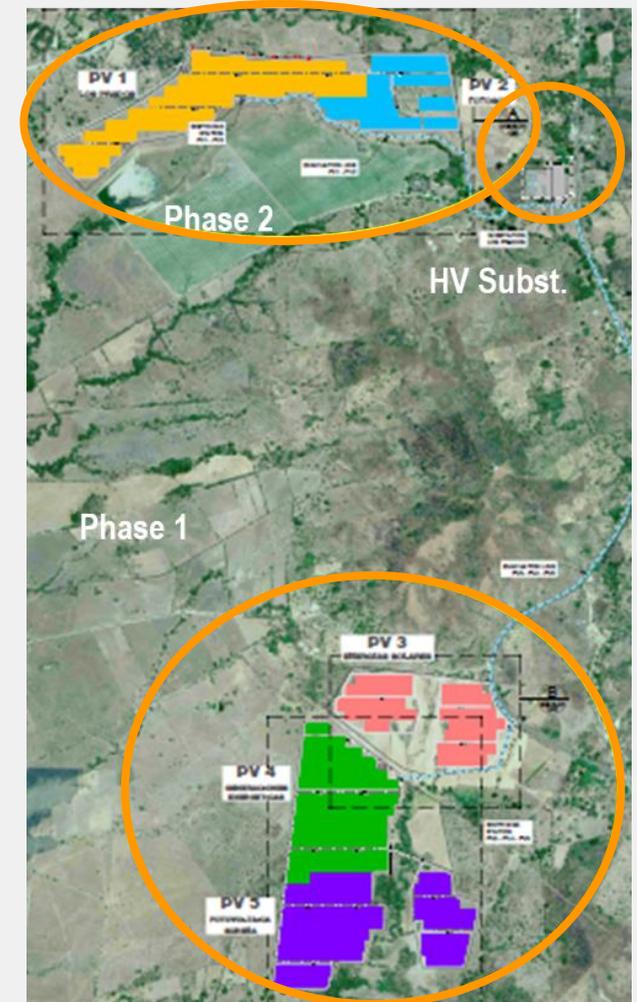
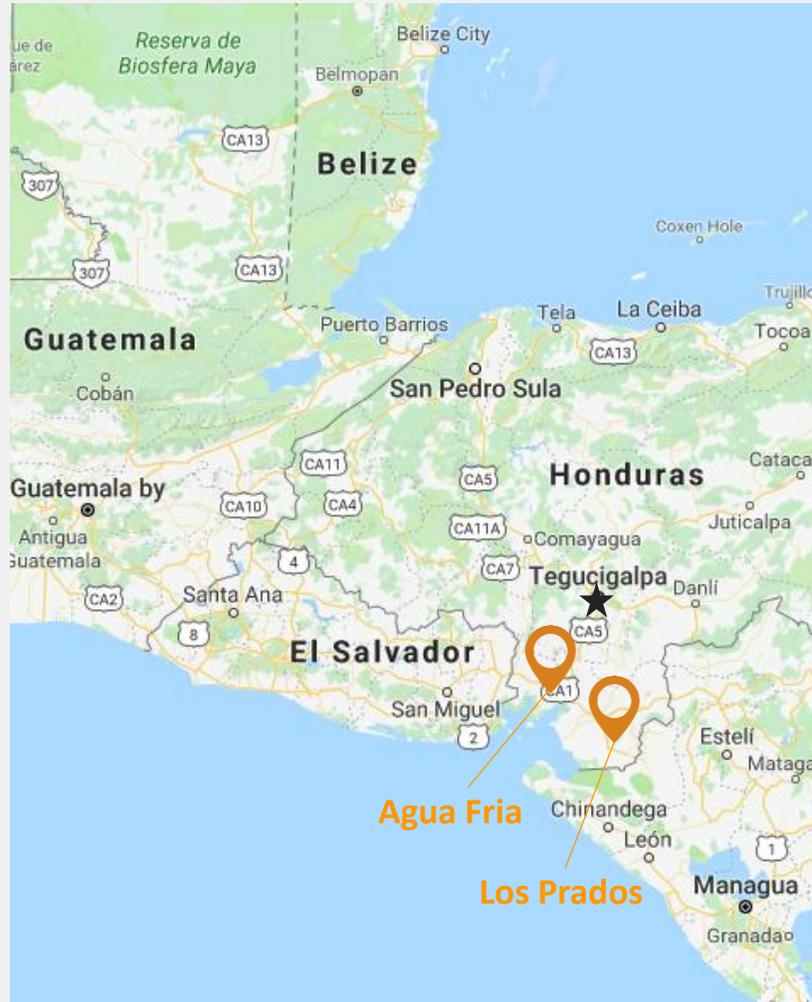
Early planning is essential for a successful project execution



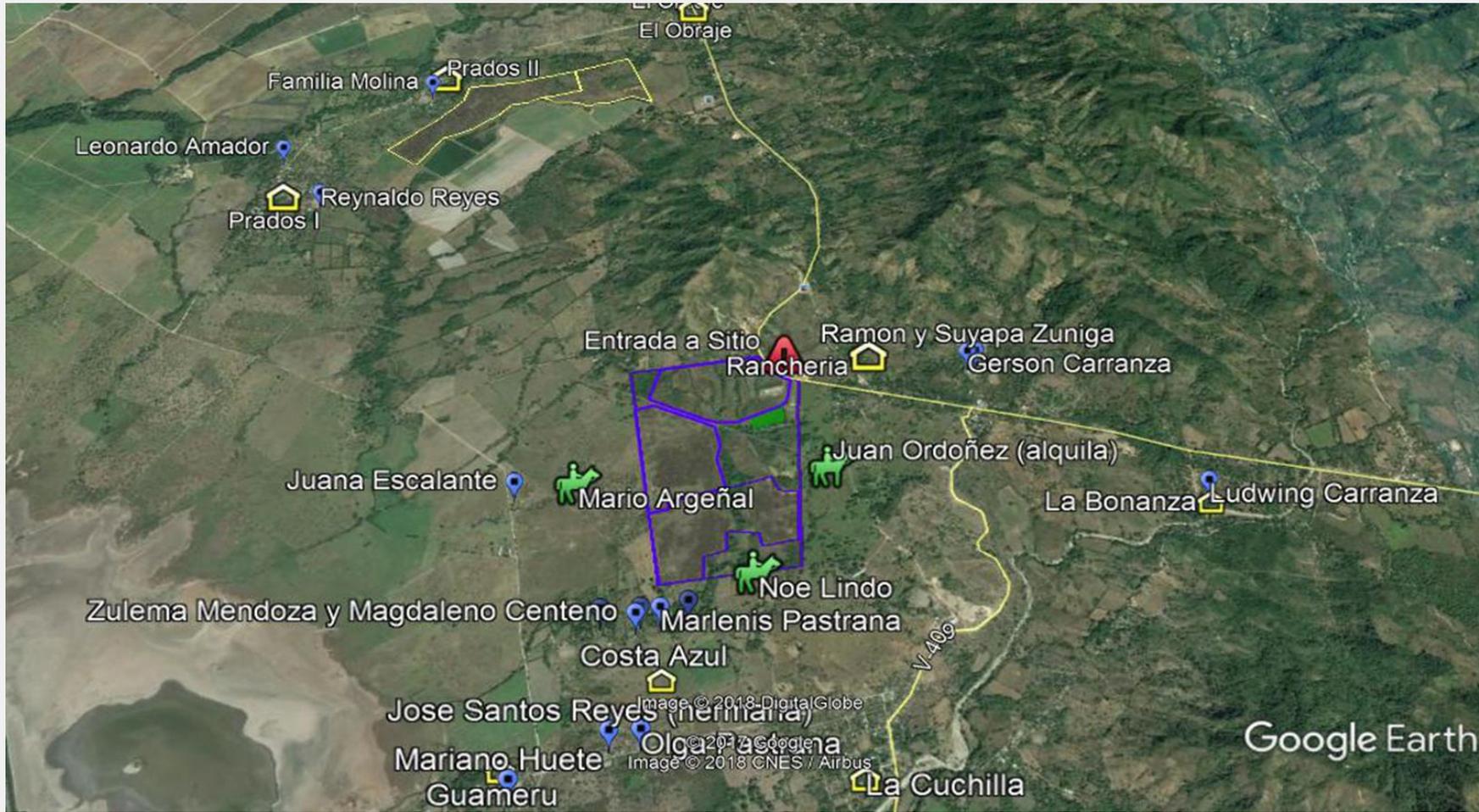
Some key considerations for challenging regions

- Early planning is essential for a successful execution phase
- What needs to be in place to establish a scalable and flexible global organization
- Contracting models for in country work – what is the best set-up
- Understanding the Logistics challenges is key
- Sustainability in Supply Chain
- Environmental and Social Baseline for the project
- Security

Case study: Los Prados in Honduras



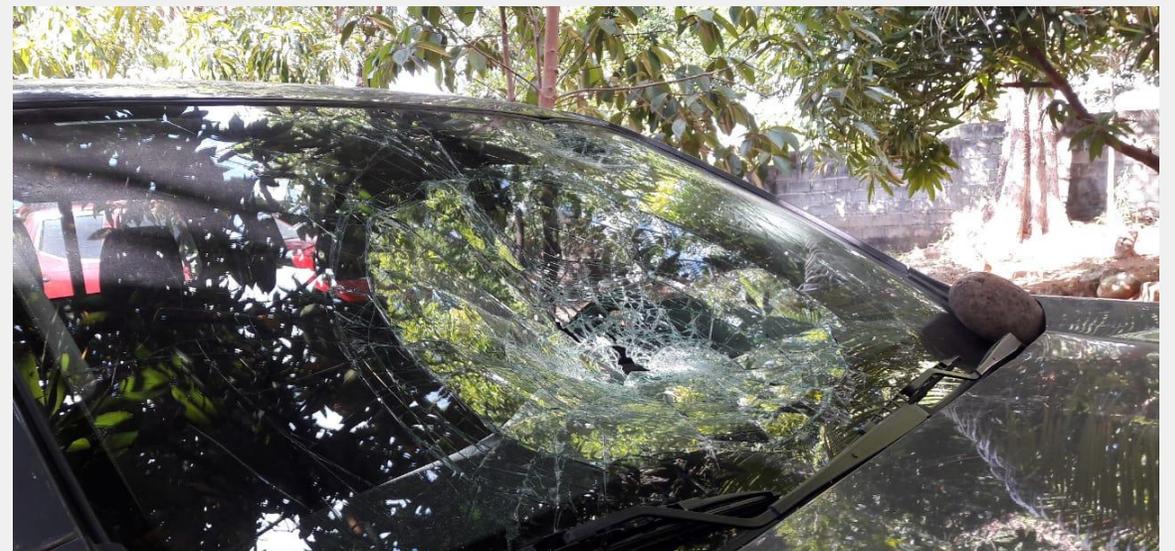
The Los Prados project: The neighbourhood – «back to start»....



- Expectations
- Misinformation
- Wrong perceptions
- Community dialogue
- Project stakeholders
- Baseline defined

Los Prados – sporadic episodes as when protesters hit our social team’s car...

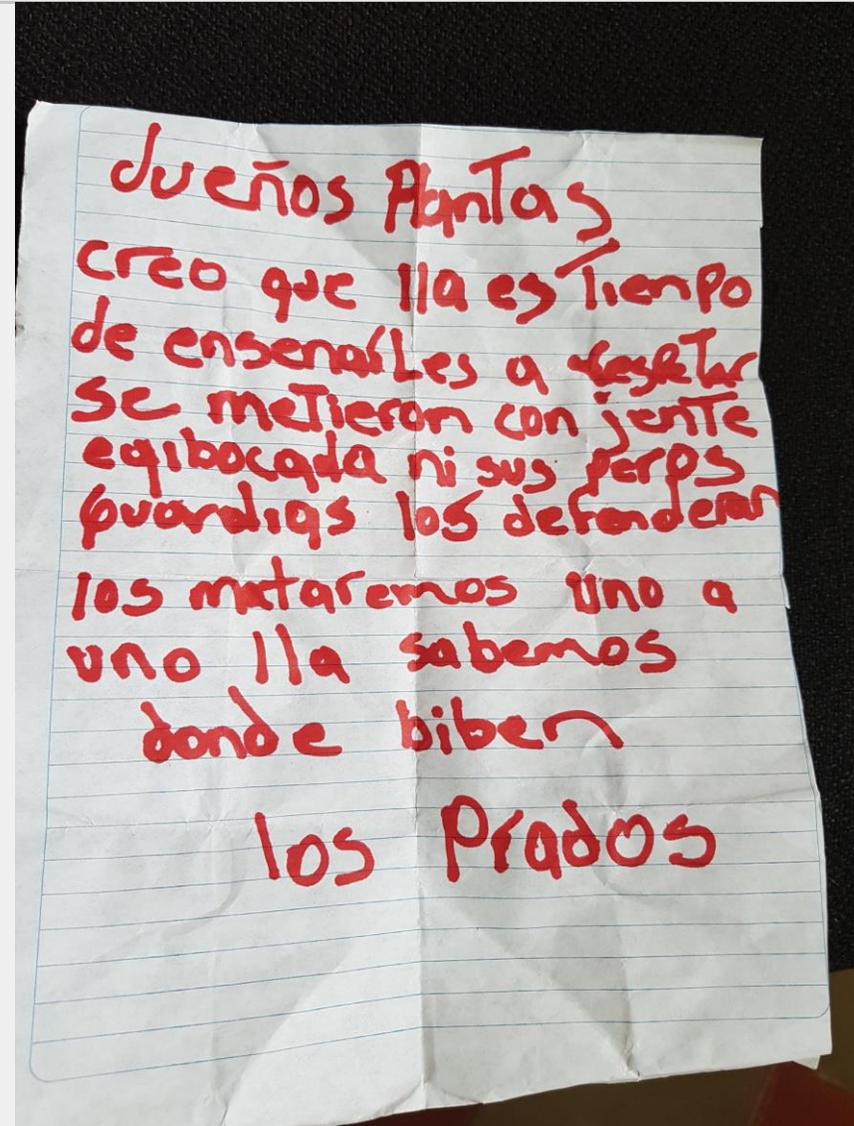
- While at a community meeting at Costa Azul village, our Social team were attacked by local protesters using machetes, sticks and stones.
- The incident was filed with the police for investigation
- Our people recognized the perpetrators as coming from “another community”.
- A “set back” as we are now gaining good momentum with the community and conciliations agreements, including the more “difficult” communities from earlier
- Early rumors, later documented that it was an arranged event



Another threat at Los Prados

“Plants (PV) owners,
I think it's time to teach you respect, you
got into the wrong people,
your guard dogs will not defend you,
we'll kill you one by one, we already know
where you live.

Los Prados”



Our response: Developed a strategy to move the project forward

Cut losses and pull out?

Strategy to move the project forward:

- Detailed mapping of all stakeholders
- Document the violence for a criminal case
- Establish negotiation team (Security Manager and E&S Officer) seeking conciliation agreements
- Intensify the social dialogue with a strengthened E&S team and the communities
- Gain support from Central Governmental (DINIS and the Police/Military)



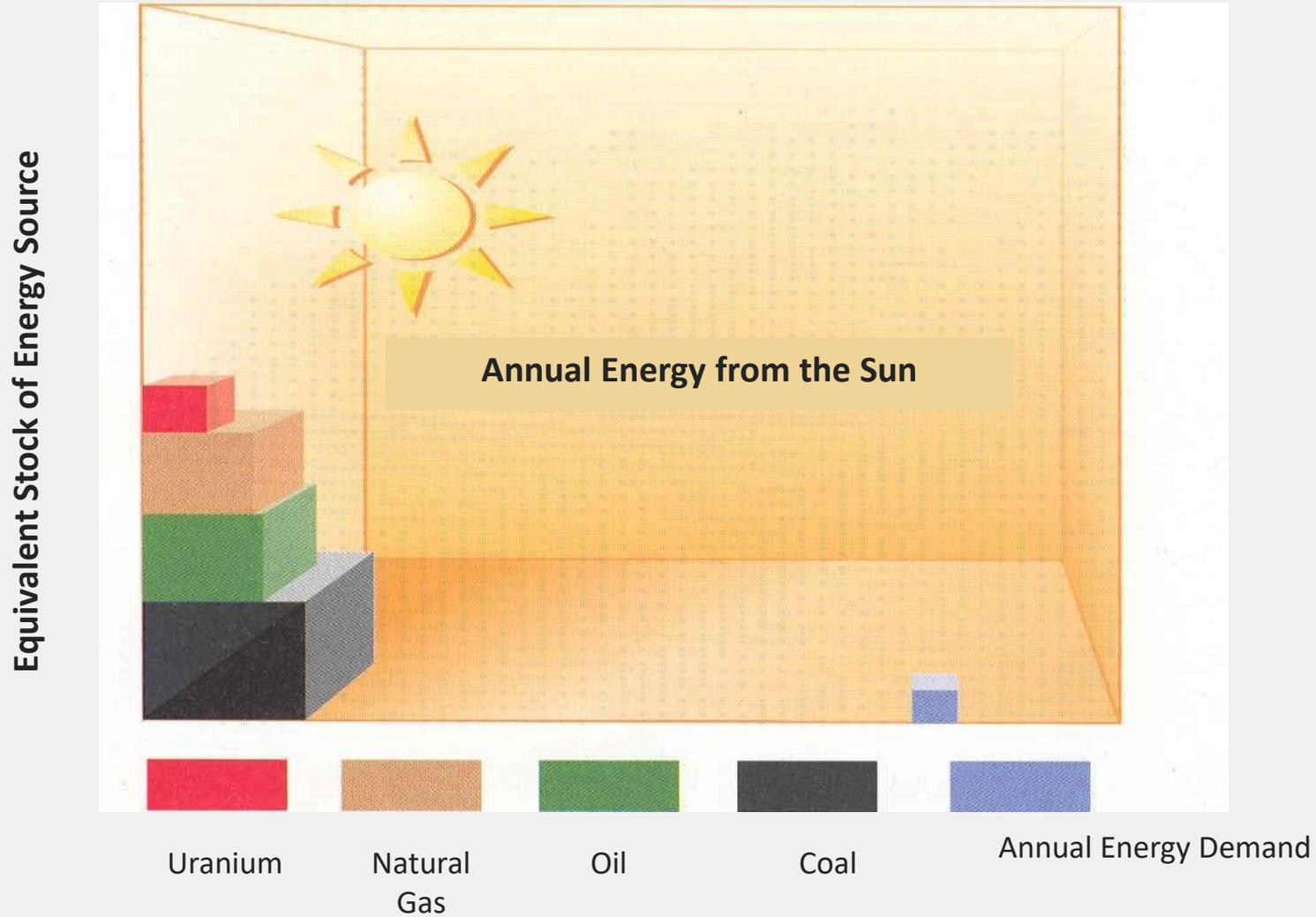
Los Prados: October 1 – 2018 into production!



Managing social and security aspects closely

- Continue the high activity level related to social activities in the local communities (i.e open medical event for the locals with 30 doctors available to do check ups held Sept 29 –great success with approx 5000 locals showing up)
- Working to maintain the security team locally until regular operation is ongoing

The Sun as our source of Energy (feb 2007)





Scatec Solar

Improving our future™

