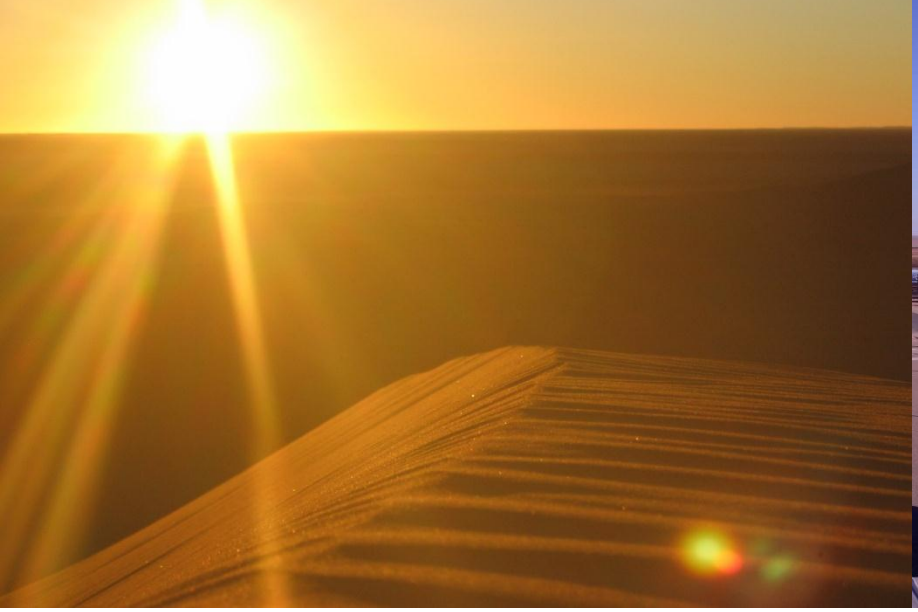
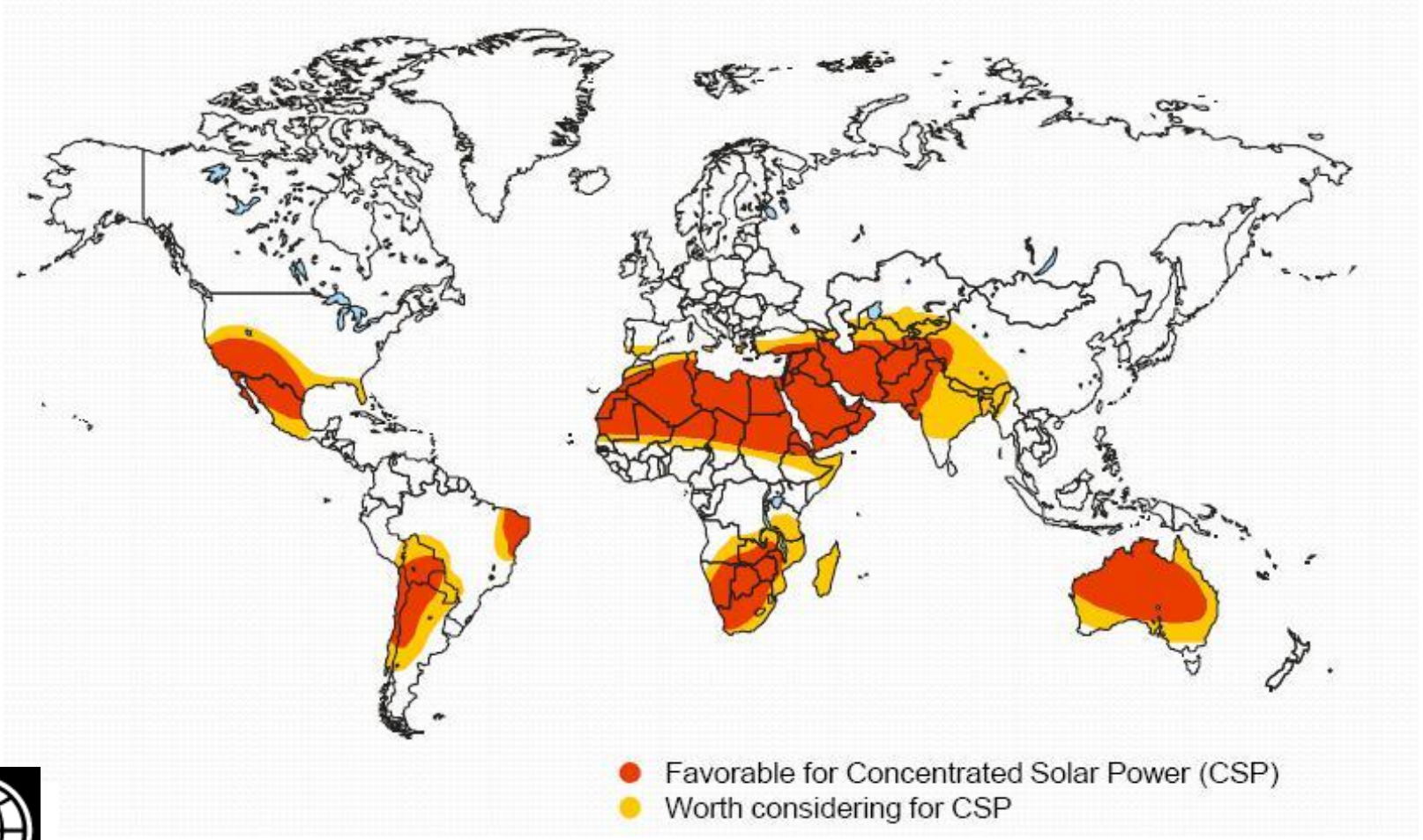


The CTF MENA CSP Scale-up Investment Plan

ESMAP/IFC Renewable Energy Training Program: Module 7 – Concentrated Solar Power (CSP), *Washington DC, November 8, 2012*

MENA's Comparative Advantage: Significant Solar Resource in Proximity to a Large Market for Solar Energy



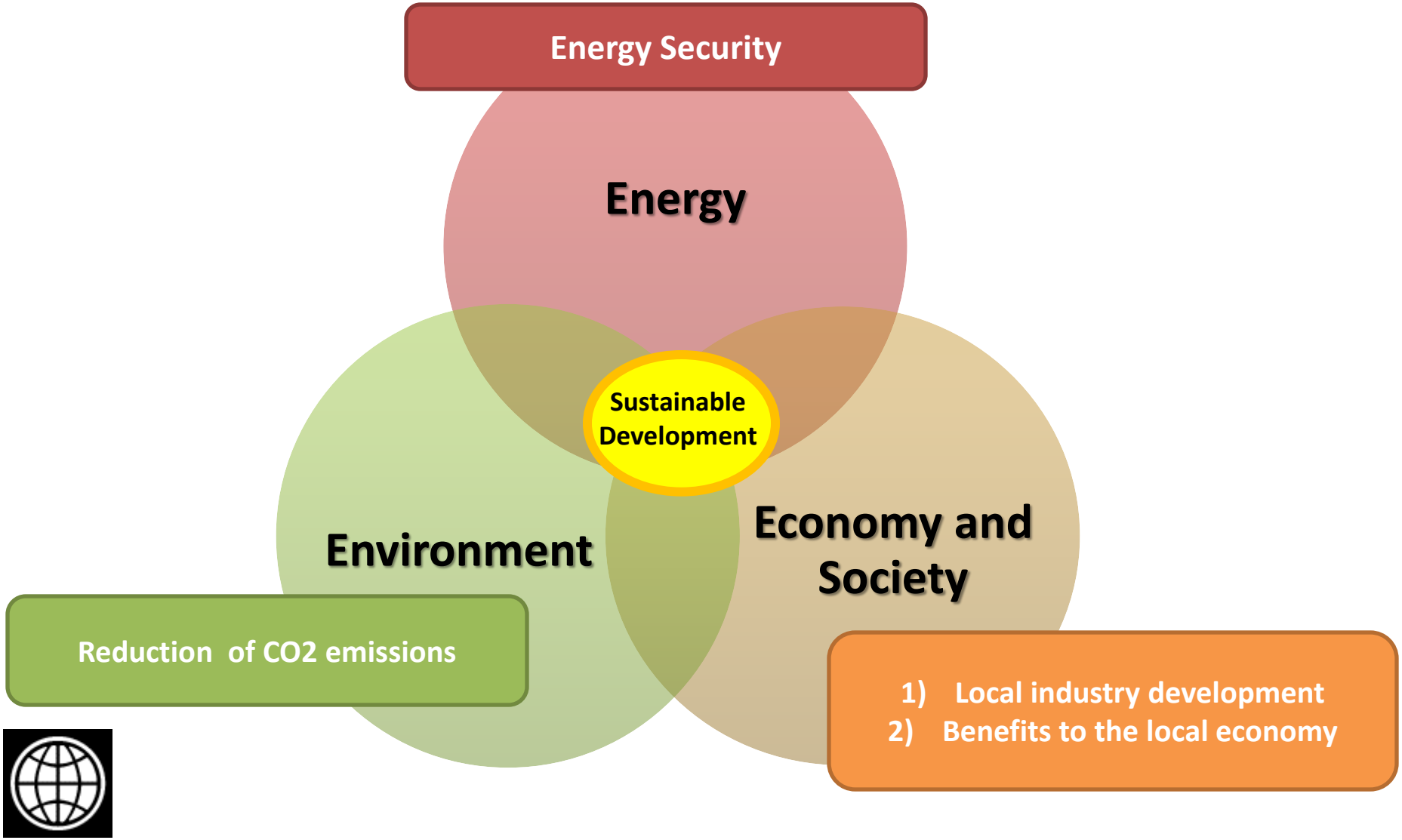
Why Is Solar Energy Important for MENA?

- For oil & gas producers: free up oil & gas for higher value-added uses;
- For oil & gas importers: energy security;
- Potential for export to comparatively high-paying “green” electricity markets in Europe;
- Potential for industrial diversification and job creation

Why is MENA's Scale-up Globally Important?

- Market acceleration underway: investments being developed in Saudi Arabia, South Africa, Abu Dhabi, Algeria, Egypt, Morocco, Spain and USA;
- MENA and South Western USA/Mexico offer best combination of solar resources, land, infrastructure, and market;
- Thus economies of scale can be achieved most effectively there;
- MENA development would lead to falling technology costs globally;
- Significant contribution to climate change mitigation.

A Technology at the Crossroads of Energy, Environmental, Social and Economic Policy



The Clean Technology Fund MENA CSP Scale-up Investment Plan (I)

- CTF objective: to fund “transformational” low-carbon projects.
- CSP: a technology with significantly unexploited economies of scale and in need of upfront subsidies to induce learning cost curve effects.
- US$ 5.6 billion MENA CSP Investment Plan, endorsed by CTF in December 2009, implemented by the World Bank and the African Development Bank.
- CTF contribution to MENA CSP: US$ 750 Million of highly-subsidized financing.
- But, CTF and donors can only jump-start the process by demonstration – they cannot (and should not) fund replication and scale-up. The export market, however, can greatly help in doing that.

The Clean Technology Fund MENA CSP Scale-up Investment Plan (II)

- Current project pipeline (as proposed by participating countries, i.e. Algeria, Egypt, Jordan, Morocco and Tunisia): ~1000 MW of generation capacity and two transmission projects.
- Ouarzazate 1 is the first project to reach bidding stage (financing from PPP with support from CTF ($197m), EU NIF, AfDB, WB, AFD, KfW/German Government, EIB).
- Ouarzazate 2, Tunisia, Egypt, and Jordan projects to follow in 2012/2013.
- Due to the Arab Spring there have been delays in moving the project portfolio forward. At the end of 2012 there is a renewed effort to bring the cornerstone project to fruition.

Moving from Predominantly Public Projects for Local Consumption to Private for Exports

Accelerating factors:
Kick start Concessional funding
Opening of EU market
Fossil Fuel Subsidies Phasing-out

Ouarzazate Phase I

By 2020: up to 1 GW

Ownership: public or long-term contract-based PPPs

Financing: key role for concessional funding until 2015

Risk sharing: development risks and market risk; MENA Governments, part of the financing risk

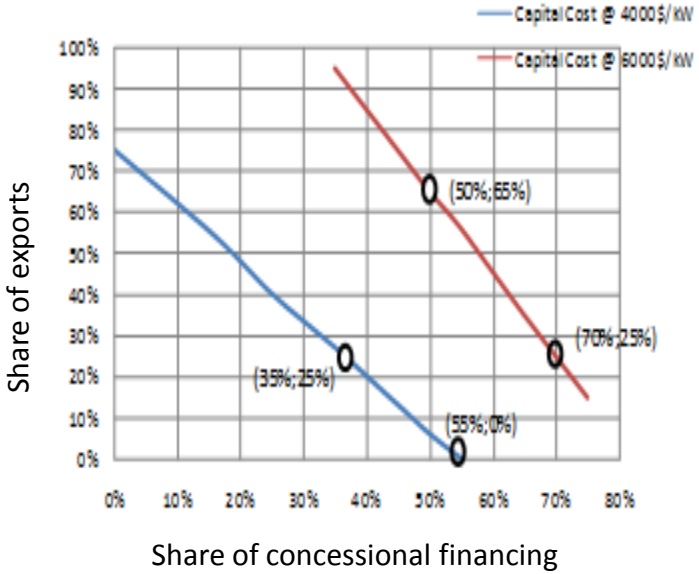
By 2030: between 3 and 5 GW

Ownership: MENA, Europe and global companies with long-term contracts, once the regulatory environment and market for green power matures in Europe

Financing: Similar to financing for other RE projects, with commercial financing playing a key role, export credit financing can be exploited

Risk sharing: More risks shifted towards the private sector as the green energy market in Europe matures and there is clarity on power export's framework

By 2050: ??



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