

## Foreword

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**T**he Middle East & North Africa (MENA) region has amongst the world's best conditions for concentrated solar power (CSP): abundant sunshine, low precipitation, plenty of unused flat land close to road networks and transmission grids. It is also close to Europe, where green electricity is much valued.

However, high initial capital costs remain a significant issue for adoption of CSP technology. To make CSP projects in MENA cost effective in the short to medium term, a combination of factors is necessary, including local incentives, concessional finance and export of green electricity to Europe. The MENA CSP scale-up Investment Plan (MENA CSP IP), supported by the World Bank and the African Development Bank (AfDB), is intended to strategically utilize concessional financing from the Clean Technology Fund (CTF) to accelerate global adoption of the technology in the region. It was endorsed by the CTF Trust Fund Committee on December 2, 2009, and will support expansion programs in five countries of the MENA region, Algeria, Egypt, Jordan, Morocco and Tunisia.

In the longer term, to make concessional finance less critical, generation costs will need to be dramatically lower. This implies that investment costs, and therefore manufacturing costs of the main components and systems, need to decrease. It will be made possible by a combination of technical innovation, economies of scale, and experience curve effect. The potential for such cost decrease is considerable, as CSP is a young industry, with a limited number of large or experienced players. MENA, like other emerging regions of the world, has technical and industrial capabilities which are likely to form a good basis on which to build CSP-related activities, as shown for example by the strong auto parts industry in several countries of the region. It could become home to a new, high potential industry, serving the local markets, as well as existing markets in Southern Europe, in the US and elsewhere. The region could benefit from significant job and wealth creation, while the world energy sector would benefit from increased competition and lower costs in CSP equipment manufacturing.



To assess the local manufacturing potential for CSP components in the MENA region, a study was commissioned by the World Bank with donor support from the Energy Sector Management Assistance Program (ESMAP). It was carried out during the year 2010 by Ernst & Young (France) and the Fraunhofer Institute (Germany). A stakeholder workshop was conducted on September 30<sup>th</sup>, 2010, in Cairo, and feedback was received from the client countries, industry participants and donors. The AfDB and World Bank teams actively participated in the review and finalization of the study.