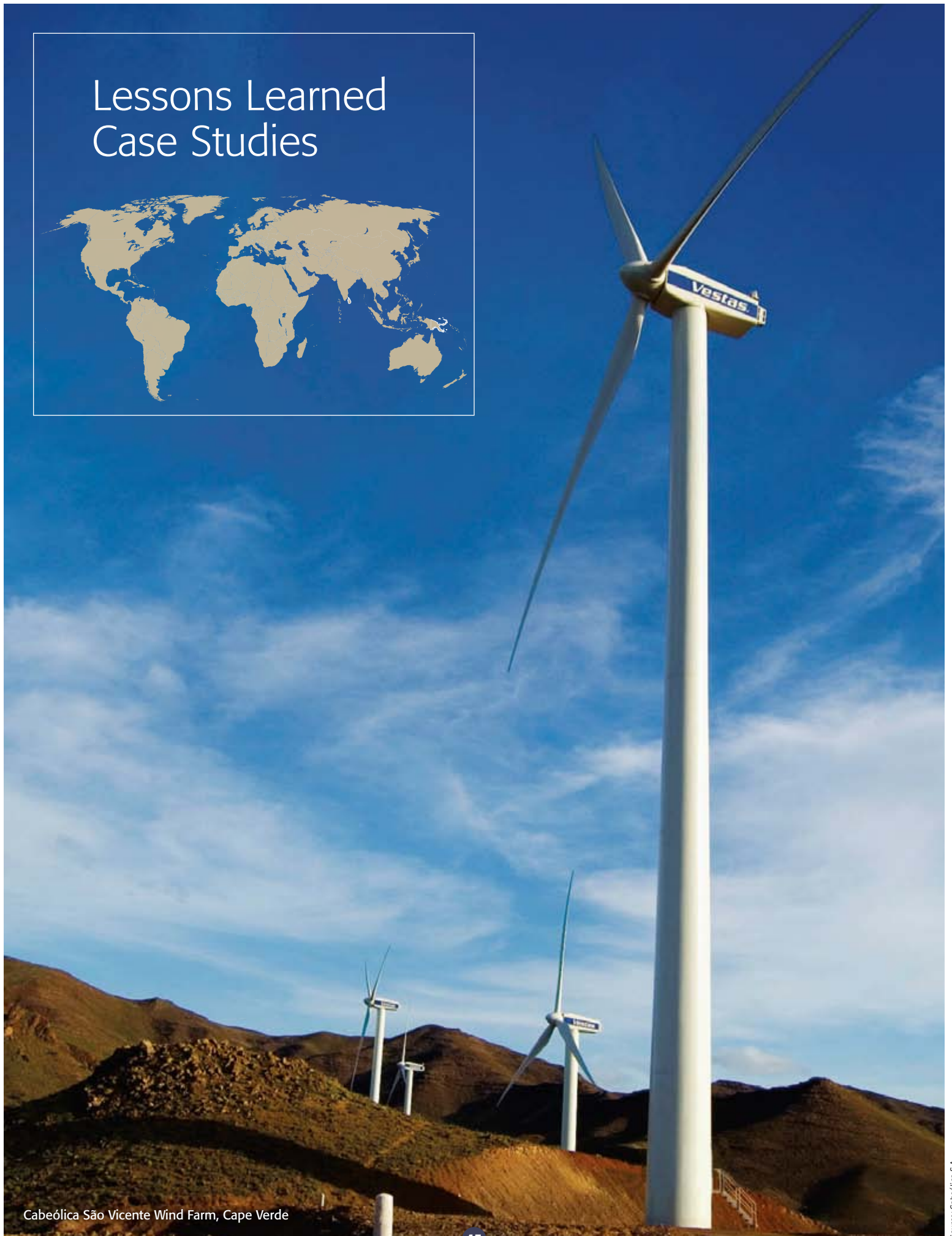


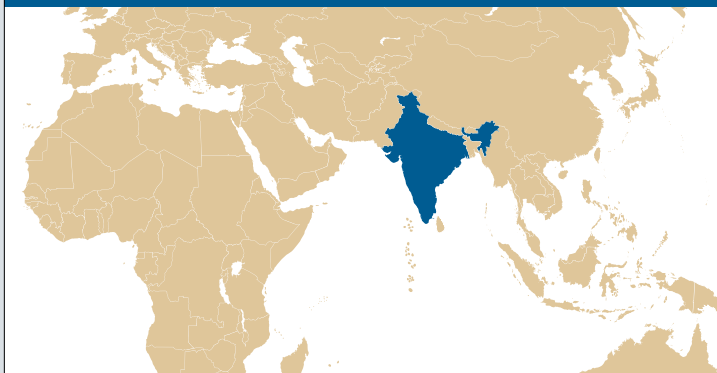
Lessons Learned Case Studies



Cabeólica São Vicente Wind Farm, Cape Verde

India

LESSONS LEARNED CASE STUDY



Source: KfW Bankengruppe

THE PROJECT:

- The venture consisted of a line of credit by the KfW Group in 1998 to the Indian Renewable Energy Development Agency in order to facilitate investments in renewable electricity generation in India. Wind power, bagasse based cogeneration and photovoltaic power were the focus of this project.
- While overall investments reached almost € 93 million, the KfW credit accounted for over € 61 million.
- The main goal of the venture was to contribute to the decarbonization of the Indian energy supply, to improve the long-term financing of renewable energy in the country and to promote the commercial deployment of sustainable electricity technologies.
- The technology breakdown of the projects funded by this venture was: 94 MW of wind power, 53 MW of bagasse based cogeneration and 169 Kwp photovoltaics.

PUBLIC-PRIVATE PARTICIPANTS:

Public Sector:

- Indian Renewable Energy Development Agency (IREDA), promoter

Private Sector:

- Small and medium sized private investors and companies

LESSONS LEARNED

Energy Policies

- No explicitly new energy policies were required for the projects financed by the KfW and IREDA. Nonetheless, it must be said that the promotion of renewable energy is –and already was at that time– one of the priorities of Indian energy policy.
- However, the approach of fostering technology innovation in the field of renewable energies by offering credits and soft loans instead of grants was new in India.

Financing

- From the € 61.35 million line of credit granted by the KfW, € 35.79 million were offered as soft loans with interest lower than the market level.
- While the credit terms for each project met the usual IREDA terms, interest for the ultimate borrowers varied between 8.5% and 9.5% depending on project characteristics, especially the technology involved. Overall interest levels offered were only slightly below market levels. The life of the credits was between 8 and 10 years.
- The main reasons for lasting investments in renewable energy financed by this line of credit were the attractive general conditions offered and policies in place that allowed for profits.
- Profits were attractive, especially in the wind projects and in the bagasse based cogeneration projects, where the generated electricity has become a major source of income for the sugar plantations.



Replicability

- The financing scheme is replicable. In fact, a second line of credit was offered by the KfW a few years later.

Long-Term Policy Framework

- The different projects implemented with this credit line were able to succeed because the right energy policies and stable long-term framework in India were already in place.
- The success of renewable energy projects in India has led to changes in subsidy schemes for renewable projects.

Conclusions

- The venture can be considered a real trailbreaking project, as it succeeded in bringing many renewable projects to fruition. Attractive long-term credits and government tax breaks not only secured the success of the projects but also led to the development of market-based financing options. This has led to a decrease in the need for soft loans within the framework of financial development aid.
- A side benefit of the successful expansion of wind electricity generation in particular was the high demand for wind turbines that led to the creation of very high production capacities in India. Today these capacities have made India one of the biggest exporters of wind turbines worldwide.

- The key success factors were: a positive investment climate, an accurate assessment of the sector's potential, tax incentives from the Indian government, and the availability of an attractive financing scheme through soft loans by KfW. Another success factor was the readiness of manufacturers to undertake all necessary project services for the investors (selection of the project site, operation, maintenance).
- To date, the lines of credit of the KfW Group to IREDA have reached a total of € 322 million.

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	Independent Power Producers Forum			
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**ABOUT THE GLOBAL SUSTAINABLE
ELECTRICITY PARTNERSHIP:**

Created in the wake of the 1992 Rio Summit, the Global Sustainable Electricity Partnership, formerly e_g, is a non-profit international organization, composed of the top world leading electricity companies, whose mission is to play an active role in the international debate on global electricity issues and to promote sustainable energy development through electricity sector projects and human capacity-building activities in developing and emerging nations worldwide.

For more information visit:
www.globalelectricity.org.

ABOUT UN-ENERGY:

UN-Energy was initiated as a mechanism to promote coherence within the United Nations family of organizations in the energy field and to develop increased collective engagement between the United Nations and other key external stakeholders. Its envisaged role was to increase the sharing of information, encourage and facilitate joint programming and develop action-oriented approaches to coordination. It was hoped that it would develop into a system-wide network open to all and a mechanism by which a range of organizational actors could work with the United Nations to ensure a more coherent approach to addressing energy issues.

For more information visit:
www.un-energy.org.

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