



POWER
Low Carbon Economies



INTERREG IVC
INNOVATION & ENVIRONMENT
REGIONS OF EUROPE SHARING SOLUTIONS



European Union
European Regional Development Fund

ANNEX 2

Best practice Identified and transferred

Section	Indication of content
1. Title of the best practice	Windmill built out of scrap materials.
2. Precise theme/issue tackled by the practice.	The system is that of a wind turbine using the wind in the pumping of well water to feed through for cattle in a Pilot demonstration project. The aim is to develop an economical and simple method for pumping well water, and then replicate it in refugee camps in the Sahara.
3. Objectives of the best practice.	<ul style="list-style-type: none"> -The substitution of a gas-oil pump. -Self-consumption -Pollution reduction. -Financial Savings.
4. Location.	<ul style="list-style-type: none"> - Spain. - Campano farm: Chiclana-Conil Road, km 13 (Cádiz).
5. Detailed description of the best practice.	<ul style="list-style-type: none"> - Origin. Power supply from renewable energy. - Timescale. Operational start-up year: 2006. - Bodies involved / implementation. National Geographic recorded a reportage in a cycle of renewable energy in Europe. The episode of Spain is filmed here for the development of a windmill prototype for watering cattles in collaboration with a local NGO called SUSTENTA. The windmill was constructed in 5 days using waste materials from the cattle farm. SUSTENTA (www.sustenta.org) is developing a international cooperation project to export this best practice to the refugee camps in the Sahara desert in Argelia. Here the windmill is used to pump

	<p>water for irrigation of local farms.</p> <ul style="list-style-type: none"> - Process and detailed content of the practice. <p>The replication is the aim.</p> <p>1 year: testing of materials and technical 2 year: local workshop in Sahara 3 year: replication in other camps</p> <p>Solutions to traditional problems, such as watering the cattle is feasible with RE.</p> <ul style="list-style-type: none"> - Legal framework. - Financial framework. <p style="text-align: center;">Initial Investment 2,000 €</p> <p style="text-align: center;">Payback 1 year</p>
6. Evaluation	<ul style="list-style-type: none"> - Possible demonstrated results (e.g. through indicators). - Possible success factors <ul style="list-style-type: none"> • Quick payback (1 año). • Significant financial savings. • No need for diesel consumption. • CO2 avoided:4.2(CO2 ton/year) - Difficulties encountered.
7. Lessons learnt from the best practice	<ul style="list-style-type: none"> - Using new technologies to obtain water from renewable energy. - Economic savings that improve standard of living for poorer nations.
8. Contact information	<p>GEAN - Jesús Martínez Linares</p> <p>Address: Centro Comercial Ugaldenea, local 2. Ctra. de la Barrosa. PC 11130 (Chiclana) Tlf. +34 956 49 85 68 e-mail: jesus@geasolar.com</p>
9. Other possible interesting information	<ul style="list-style-type: none"> - Various documents (reports, presentations, etc.



Wind velocity (m/s) **6**

Power Capacity (kW) **1**

(l/day) **5,000-10,000**

CO2 avoided (CO2 ton/year) **4.2**

10. Best practice transferred

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