

### FRAUNHOFER WATER SYSTEMS ALLIANCE (SYSWASSER)





ADU-RES project team at the meeting in Hammamet/Tunesia.
 Solar driven plant for water treatment in Egypt (Fa. RSD Solar Water).

# Fraunhofer Water Systems Alliance (SysWasser)

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# ADU-RES – AUTONOMOUS DESALINATION UNITS (ADUS) BASED ON RENEWABLE ENERGY SYSTEMS (RES)

Against the background of the growing water scarcity – especially in the Mediterranean – sixteen European and North African research institutes came together in April 2004 to analyze the increased demand on water treatment techniques for seawater desalination.

The partners of the joint research project ADU-RES saw their prior task in identifying the current state of research regarding autonomous seawater desalination powered by renewable energy technologies and hence to develop the best suitable solutions.

Based on detailed investigation researchers from Fraunhofer Institute for Solar Energy Systems ISE elaborated a design guideline together with further project partners containing information and recommendations for the realization of such desalination projects.

The ADU-RES planning handbook is providing comprehensive know-how in the following areas:

- Options to couple renewable energy and desalination technologies,
- Fouling and Scaling,
- Corrosion and material selection,
- Further treatment of the brine and the desalinated water,
- Consideration of social aspects from the point of view of all project stakeholders; particularly in identifying the water demand of the end users and the traditional ways of supply and the exploitation of water.