



## OASE Organisation for Agriculture in Saline Environments

[www.oasefoundation.eu](http://www.oasefoundation.eu)

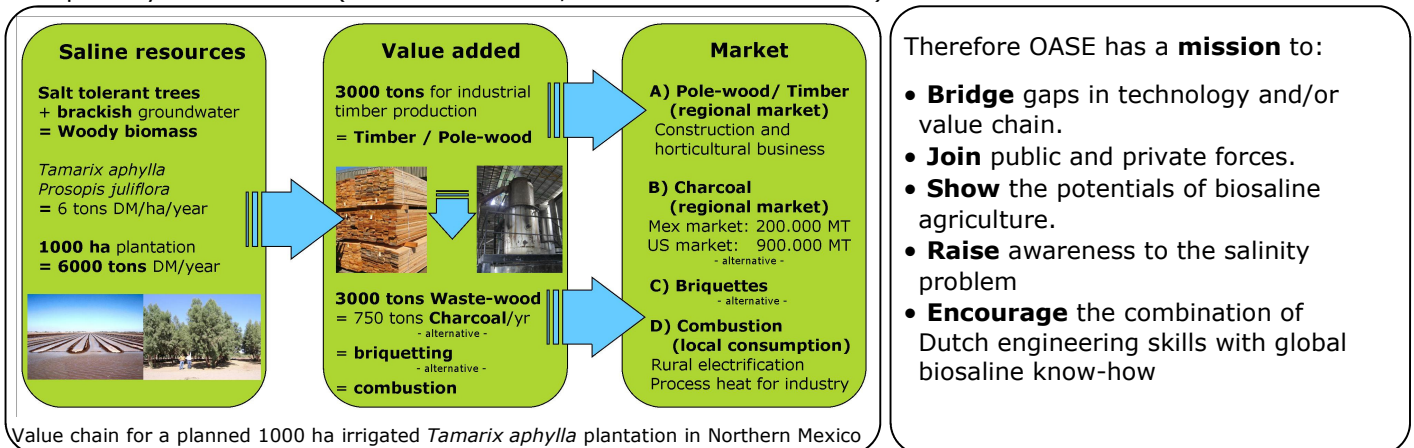
### Scarcity of fresh water: Saline agriculture provides opportunities



Biosaline agriculture is a relatively new way of dealing with salinity in agriculture. The goal is to develop sustainable cropping systems for saline environments, using the capacity of some plants to grow under saline conditions, combined with improved forms of soil and water management. As salinity is influencing our environments more and more, there is an urgency in developing cropping systems that can produce in saline conditions. Currently as much as 10 % of the worldwide agricultural output is affected by salinity. The area of salt affected land increases with 10 million hectares per year.

### OASE approach

OASE specializes in creating biosaline value chains, incorporating all the steps from input of agricultural resources (including harvesting and further processing) to creation of added value and final sales (including transport logistics, taxes, etc). When farmers see there is a working market for biosaline products they will start growing them, using new, sustainable technologies and creating a viable source of income. At present, OASE focusses mainly on saline biomass for energy and biomaterials, but it also has experience in other saline products, including several for specialty food markets (OceanDesertFood, [www.oceandesertfood.nl](http://www.oceandesertfood.nl)).



Therefore OASE has a **mission** to:

- **Bridge** gaps in technology and/or value chain.
- **Join** public and private forces.
- **Show** the potentials of biosaline agriculture.
- **Raise** awareness to the salinity problem
- **Encourage** the combination of Dutch engineering skills with global biosaline know-how

### OASE organisation

OASE is a daughter organisation of the Institute for Environment and Systems Analysis (IMSA), an independent think-tank committed to sustainability and innovation. OASE is established in Amsterdam, The Netherlands, as a non-profit organisation.

### OASE partners and sponsors

**Sponsors:** EU Commission; SHELL International and SHELL Canada; DOEN Foundation; Netherlands Ministry of Education, Culture & Science; Postcodeloterij, Ministerie vanLNV

**Research partners:** ICBA Intern. Centre for Biosaline Agriculture, Dubai; CSSRI Central Soil Salinity Research Centre, Karnal, India; ACACIA Institute, Amsterdam, NL; Copernicus Institute, Utrecht University, NL; WaterWatch, Wageningen, NL; ProBos, Wageningen, NL

**Development Organisations:** Development Alternatives, India; Pro Natura, Mexico



## OASE Projects

**ODE SeaVegetables**

The first economically profitable biosaline value chain was realized by OASE in cooperation with its Mexican partner Saline Seed Mexico in 2001. ODE SeaVegetables was established as a commercially profitable marketing company. Salicornia is sold as a fresh vegetable (fresh tips) mostly to European markets. Salicornia seed is sold as a second product. More information: [www.seavegetables.eu](http://www.seavegetables.eu)

**Colorado Delta Project**

In 2003 OASE started a biosaline agro-forestry pilot in the Colorado River Delta in Mexico. OASE established a biosaline field station to assess suitable saline crops. On 30 ha (see photos below) a *Tamarix aphylla* plantation has been established. An up-scaling to 500-1000 ha semi-commercial agro-forestry is currently developed. Enlargements up to 20,000 ha are envisaged from 2010 onwards. The production is meant for charcoal and liquid biofuels for the regional and international market. More information: [www.oasefoundation.eu/project/34](http://www.oasefoundation.eu/project/34)

**ODAKA, Wastelands for Energy**

In Haryana, India, a feasibility study for a 1000 ha semi-commercial agro-forestry project has been started in cooperation with Development Alternatives (New Delhi) and Central Soil Salinity Institute (Karnal). The goal is the establishment of a small scale rural electrification plant (1MW), running on saline biomass to be fed into the grid. Communal land has been selected for plantations in 3 villages and discussions are going ahead with investors for an electrification plant. More information: [www.oasefoundation.eu/project/549](http://www.oasefoundation.eu/project/549)

**BIOSAFOR, Biosaline Agroforestry**

The goal of the project is a worldwide assessment of the contribution of saline wastelands to biomass production for renewable energy. It includes research from pot trials, GIS assessments to policy analysis. The project is funded by the EU Commission and involves research institutes in Spain, United Arab Emirates, India, Pakistan, Bangladesh, The Netherlands and Germany and will last until 2010. More information: [www.biosafor.eu](http://www.biosafor.eu)

Salinity dS/m	Halophytes	Tolerant crops	Sensitive Crops
100	High	Medium	Low

**Contact**

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