Prickly Pear Cactus in Southern Moroccan Regions

From historical patrimony to a technological future
The Kingdom of Morocco, rooted in the desert

- Open on a sea and an ocean, standing against four mountainous chains, anchored in the Sahara desert

- Aridity matters beyond the mountains to the East and to the South

- Prickly pear is present everywhere, but half of the planted area is below the last mountain chain

- The southern Provinces are roughly 60% of the country’s area
• Opuntia ficus indica has been present here for more than four centuries (Guetna)
• Instead of “Hindia” , “Karmouss Ennsara”, it is called here “Aknari” …
• Primary use is here forage, whereas it is mainly used as fences in the rest of the country
• 30.000 Ha around Guelmim, 60.000 with neighbouring Province
• Located mainly on secluded hills with a high biodiversity index
The Agency of the South and its cactus program

- Role: Setting up programs in partnerships to achieve synergies in human development in Moroccan Southern Provinces
- Enhancing value of natural resources (huge potential)
- Started 2 years ago a program together with UNDP, the provincial council of Guelmim, and eight municipalities of Guelmim’s Province, adding up to 25,000 Ha:

Aferket
Asrir
Echchati Abied
Laksabi
Lebyar
Rass Oumlil
Targua Wassay
Tiglit
First action = opening up cactus ranges

- A 1.5 Mio US $ program was set up with the General Direction of Local Collectivities (Ministry of Interior)
- 170 km stabilized on 4 major dirt road axes
- Opening up major zones of cactus plantation throughout more than 220 kms
- New access to more than 10,000 ha de plantations.
Set of actions = Studies, formation, demonstration, small livelihoods

• Plantation demonstration

• Studies of different kind carried out =

  Inventory of traditional knowledge
  Research on cattle food formulation
  Marketing for oil
  Potentialities of apiculture
  Economic Interest groupings
  International expertise

• Formation stages = apiculture, processing methods for cattle food, jam, oil, nopalitos…

• Chicken farming on cactus fruits
Cattle feed = 2 units of production

- Local livestock (mainly camels, sheeps and goats) need food complementation during many months of the year.
- Cactus (fruits and pads) is plentiful all year round, and can provide a basis for cattle food formulation (silage).
Non consumed fruits 1000 kg

Cattle food production

Blender

Separator

Seeds 35 kg

Juice 965 kg

Bran+dry beetroot flesh+straw+Urea+ salt

Oil: 1.75 Liters

Crushed pads

Pads’ cutting machine

After drying

Pads grinder

Cattle food 2144 kg
Cooperative for cactus processing, beekeeper union and green technology = will be presented in a short movie
Fruit processing unit =

- Taking advantage of 60,000 Ha of plantation close to Guelmim
- Almost six month of fruit production (Aissa & Moussa)
- Spineless fruit sold in supermarket, nationally and internationally
Futuristic vision = the cactopole

- Industrial quarter devoted to cactus transformation on 25 Ha
- Close to the national road, close to Guelmim, close to the provincial water treatment plant
Cochineal = A possibility?

- Aknari goes back to the name of Canary Islands
- Potentialities (land, workforce, latitude) vs constraints (introduction of a parasite)

We’re open to every new idea and partnership !!
Thank you for your attention

-Karim Anegay, October 18th 2010

And welcome to the mid congress tour organized by the Agency of the South!!