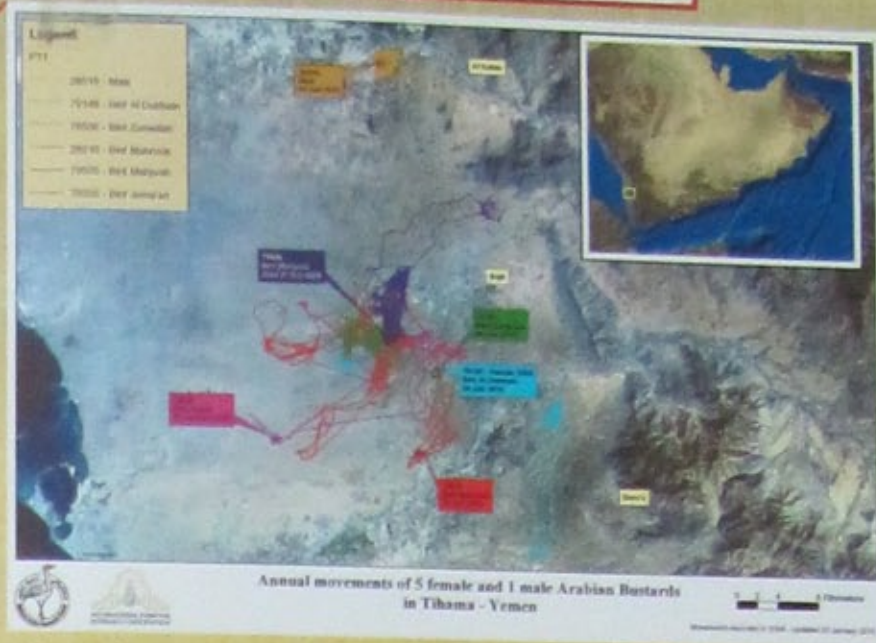


Conservation of the Arabian Bustard in Tehama-Yemen

Jacky Judas^{1,2}, Patrick Paillet², Mohammed Al Wahabi^{1,2}, Yasser Hamdan Al Kharousi^{1,2} & Olivier Combreau²
 National Avian Research Center, PO Box 45553 Abu Dhabi United Arab Emirates
 International Fund for Teahama Conservation, PO Box 45553, Abu Dhabi, United Arab Emirates

In collaboration with the Environmental Protection Agency of Yemen



- The Arabian Bustard (*Ardeotis arabs*) inhabits the arid environment of the Sahelo-Sudanese belt from Senegambia to Eritrea, with a range extension on the Arabian Peninsula
- The species has probably already vanished from Saudi Arabia

- Yemeni populations are resident
- The actual range does not exceed 1,000 km²
- The overall populations is presumably less than 100 individuals
- In most suitable habitat, density can reach up to 0.3 ind. km⁻²

Main threats on the population

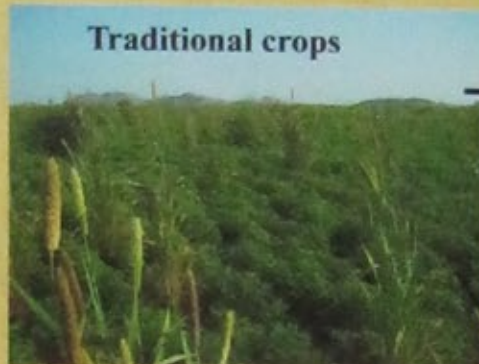
Change in agricultural practices

Traditional means of cultivation

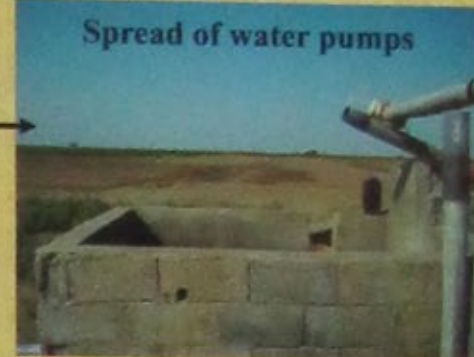


- Spread of irrigation results in a change of cultivated plant species and less dependence on rain-falls. This modifies the phenology of food availability in the fields and habitat structure, which might have some effects on the Arabian Bustard population.
- An increasing part of arable land previously used for traditional crops (Sorghum, pearled millet...) are converted to plantations of bananas and mangos, unsuitable for the typical Tehama wildlife
- The shift from traditional means of cultivation to motorized engine will likely result in an increase of nest failure: farmers using ox for ploughing used to bypass nests.

Mechanization



Traditional crops



Spread of water pumps



Spread of banana or mango plantations

Habitat loss

High risk of local extinction

Decreased breeding success

Decreased adult survival



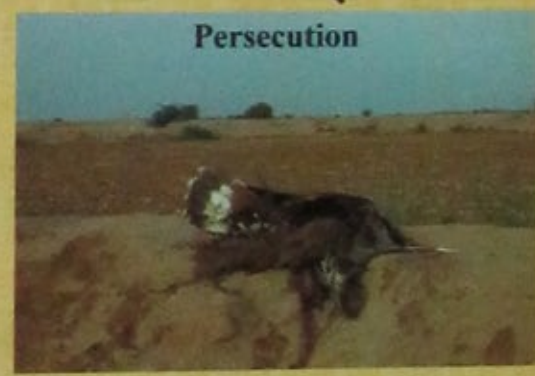
Disturbance in fields



Predation by feral dogs



Poaching



Persecution

High human population densities result in an important level of disturbance: a high percentage of nests are abandoned by the females, eggs are collected for food, chicks are caught in unsuccessful attempts to raise them.

In addition to a high predator density (raptors, carnivores), the numerous feral dogs wandering in all cultivated areas represent a direct and important threat on chicks survival.

Poaching of wild adult birds that feed illegal trade towards neighboring countries is a serious, if not the most important, threat.

Arabian Bustards are generally perceived positively by local population, however direct persecution does occur. Given the low number of birds, every single loss put the population at risk.

Conservation action

- Public awareness campaigns conducted in schools of a selection of villages
- Workshop in Al Hodeidah to inform local authorities, police, customs...
- Information among local populations

Scientific research

- Assessment of population distribution, abundance and trends (annual surveys since 2005)
- Movements and habitat use (satellite tracking of 5 females and 1 males)
- Measure of breeding parameters

Perspectives:

- Study the effect of habitat change on the Arabian bustard population (habitat use, breeding success...)
- Quantify habitat loss by remote sensing techniques
- Assess the genetic relationship between African and Arabian populations
- Develop a small-scale captive breeding programme at NARC-UAE for population re-enforcement
- Identify and develop mechanisms that promote traditional cultivation to secure suitable habitats without hampering human economical development
- Develop cooperation with national governmental bodies involved in land management and non-governmental institutions involved in wildlife conservation.
- Develop mechanisms of financial compensation for nest protection

