

- Invasive species, identified, prioritized&managed.
- It is a global crisis.
- 2-Captive breeding of endangered species.
- To fight illegal wildlife trade
- 3-Climate change& biodiversity
- 4- Valuation &accounting of biodiversity

Project concept note

Management of *Procambarus clarkii* (Redswamp crayfish) in Africa (Egypt, South Africa, Sudan, Kenya, Uganda, Zambia and Zimbabwe, Rwanda).

The Cray fish



A



B



C



Crayfish in Lakes



- This project is performed to detect and map the spread of *Procambarus clarkia* in Africa, the species which eat everything from plankton to amphibians.
- **This invasive species was spread in Africa as a consequence of climate change in this region& for other reasons.**

Objective

The importance of freshwater environments to humankind is enormous and modifications on its services will have a strong impact on human welfare so, for that & in order to achieve the **Aichi Biodiversity Target 9** and the **Sustainable Development Goal 15**, we introduce this project for management of this invasive species in Egypt and some countries in Africa (South Africa, Sudan, Uganda, Kenya Zambia and Zimbabwe, Rounda).

- The 6-inch-long (15-centimeter-long) invader is already widely distributed in lakes and other bodies of water throughout [Africa](#).
- The crayfish will reach the East African lakes of Malawi, Tanganyika, and Victoria, which are home to hundreds—and probably thousands—of species found nowhere else.

- By removing animals and plants from wetlands, [the crayfish] can upset the balance of ecosystems and reduce valuable ecosystem functions.
- Louisiana crayfish were first imported in the 1970s into Kenya and South Africa, where the species was grown in aquaculture operations. People bred the species in Kenya's [Lake Naivasha](#) and sold the delicacy to Scandinavian buyers after that region's native crayfish had been wiped out by disease.

- It is rarely seen or recognized as a threat, but they have certainly affected the fishery in Naivasha. That's because, "by eating fish eggs and fingerlings, [crayfish] can reduce the populations of fishable fish." Though some people have benefited from selling the crayfish, it's a bit of a boom-and-bust venture.

- Crayfish numbers can quickly explode and then collapse after eating the available prey in a given area. The crayfish were also introduced into dams around the Kenyan cities of Nairobi, Kiambu, and Limuru to rid those areas of parasite-carrying snails, but by burrowing into the edges of dams, rivers, and lakes to make their nests, the crayfish have damaged local infrastructure and landscapes, for instance, their burrowing has caused water canals to leak, earth dams to collapse, and banks of rivers and lakes to erode.

Activities

- Trapping and possibly poisoning could control the species in small bodies of water.

- Physical barriers could also stop the crustaceans' movements—but only if a crayfish population's precise distribution is known.

- Also, removing water hyacinth and other aquatic weed species from water bodies such as Lakes and rivers may allow birds more access to catch crayfish.

We will introduce a disease that will specifically target the crayfish.

Legal & institutional frameworks to stop moving the crayfish in Africa.

Promote sharing of information and transfer of technology through Africa.

Studies population dynamics and the varieties of species and subspecies by using RAPD-PCR.

- Increase public awareness inside every country in Africa.
- Build research capacity in each country by encourage universities & Scientific institutions research toward those species.

Project Description and Methodology

- *Procambarus clarkii* invasion management options include:
- The elimination or reduction of populations employing physical, chemical or biological methods
- The use of legislation to prohibit the transport and release of specimens.

- Detect the species, subspecies by using RAPD-PCR.
- Mapping the species ways by using modern technology.
- Monosex male culture.
- The preliminary studies will show in the next cop14 which will hold in Egypt in 2018.