

# Lake Victoria Case study



Photo: Martin VanDer Knapp



# Session objectives

## After this session you will be able to:

- Recognize how countries around Lake Victoria adopted EAFm principles and moved towards EAFm (case study)
- Determine where your country is at in moving towards EAFm
- Identify challenges your country faces in moving towards EAFm



1. Good governance



2. Appropriate scale



3. Increased participation



4. Multiple objectives



5. Cooperation & coordination



6. Adaptive management



7. Precautionary approach





## Overview – Lake Victoria case study

Uganda, Kenya and Tanzania moving from conventional fisheries management towards EAFm in Lake Victoria (since 1990)

The session will discuss how:

- fisheries management, laws and policies have moved toward EAFm
- seven EAFm principles are becoming adopted into fisheries management





# Introduction to the Lake Victoria

- Lake Surface area 68 800 km<sup>2</sup>
  - Basin population >35 million
  - Lake area shared
    - Republic of Kenya (6%)
    - United Republic of Tanzania (51%)
    - Republic of Uganda (43%)
- Lake is relatively shallow
  - land-based nutrient runoff has effect on water quality
- Largest inland water fishery in Africa





## Ecology: Drivers changing Lake Victoria

- Introduction of Nile Perch and Tilapia species
- Rapid growth in basin population
- Lake is relatively shallow, major impacts on water quality
  - Land-based nutrient & sediment runoff
  - Watershed degradation & deforestation
  - Lost shoreline wetlands, less sediment trapping
  - Industrial, urban pollution
  - Reduced water inflows, lower rainfall and industrial/urban abstraction



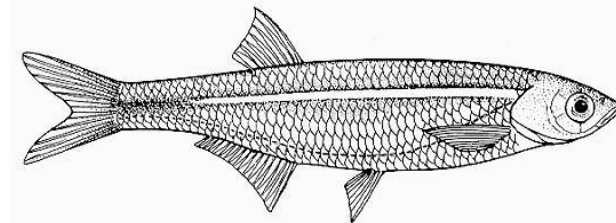
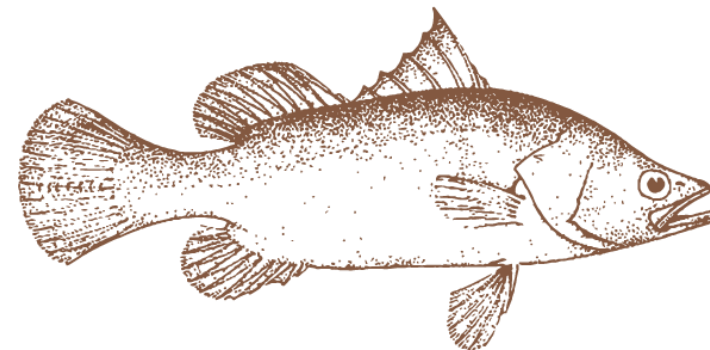


## Fisheries: of Lake Victoria

Dominated by three species

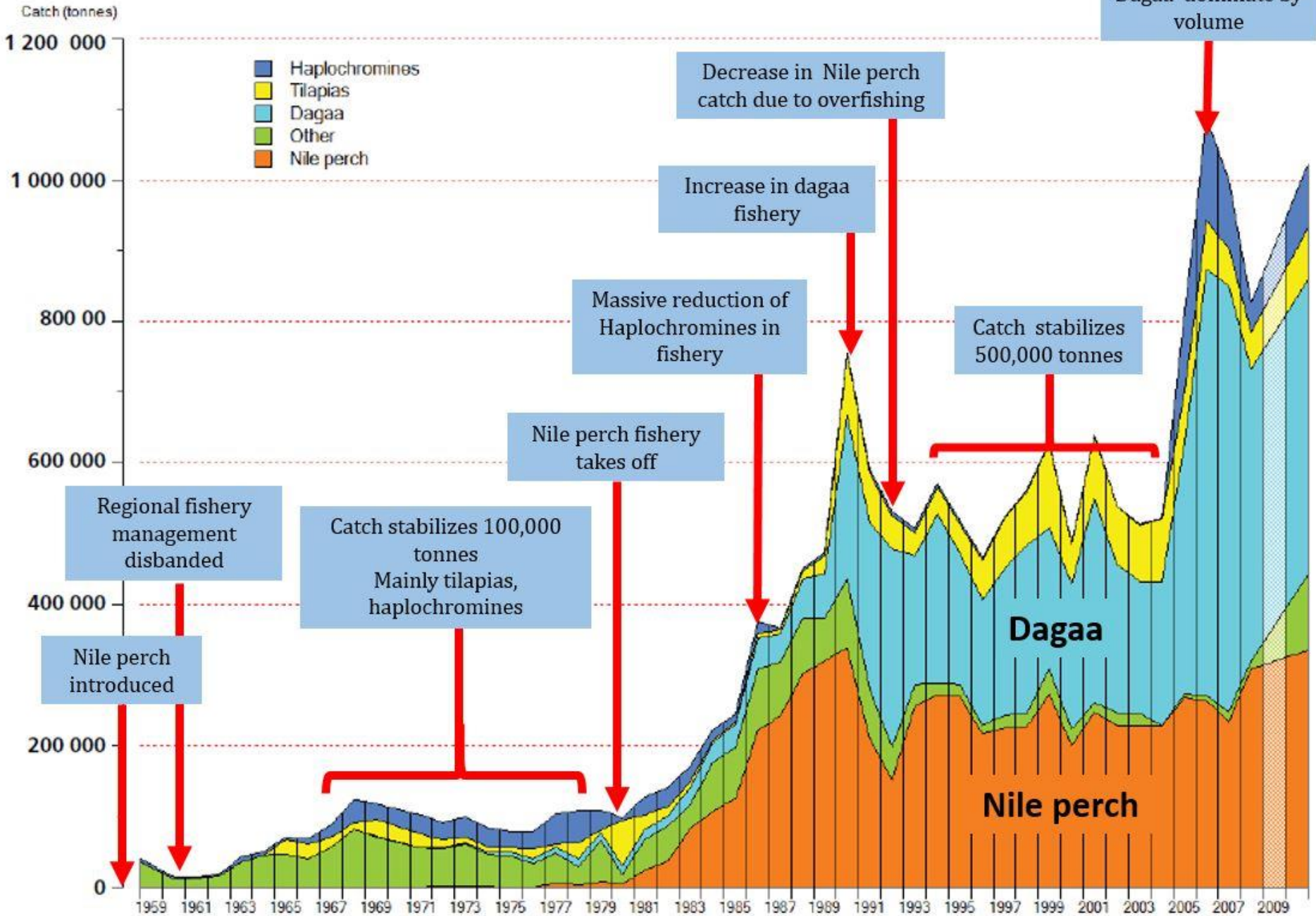
- Nile perch
- Nile tilapia
- Dagaa/Mukene/Omena

> 95 % of the total fish catch





# Lake Victoria fishery timeline 1950s-2013





## Livelihoods and Socio-economics

- Fish production relatively stable
- Nile Perch international (export) & local value chains
- Contributes 2-3% of national GDP (Kenya, Tanzania, Uganda)
- 3 million people involved in fishery, (800,000 directly)
- Many small scale fishers in small-pelagic fishery
- Dependent women processors and marketers
- Emerging cage-based aquaculture





## Governance: balancing income & livelihoods

Maximize commercial incomes and export earnings from the Nile Perch fishery and aquaculture?

or...

Sustain the livelihoods of hundreds of thousands of small-scale fishers & value chain participants, who are dependent on the fishery?



## Development of regional management

- 1994 Lake Victoria Fishery Organization established
- Co-management units start to be established
- 2004 Protocol for Sustainable Development the Lake Victoria Basin developed ratified
- Second phase of LVEMP (2009-2017) prioritizes environmental threats in the Lake
- 2016 3<sup>rd</sup> fishery management plan recognizes need to balance food security and income generation



# Moving towards EAFm – 7 principles

## 1. Good Governance

- LVFO Fishery management plan, harmonizing policies and regulations
- Regional cooperative management framework
- Rights based management >1,000 Beach Management Units (BMUs)
- BMU given legal power to manage their fisheries resources
- User-pays principle (in LVB Commission agreement)

## 2. Appropriate scale

- 3 countries trans-boundary cooperation: goal of lake-wide management

## 3. Increased participation:

- Meaningful community representation in decision-making
- Active in fisheries development sector, both responsibilities and benefits
- Preferred entry point for community development intervention
- Take a role in enforcement, tenders for revenue collection, data collection, improvement in fish handling, hygiene and sanitation
- Gender and equity: Women and youth

# Moving towards EAFm – 7 principles (2)

## 4. Multiple objectives

- Fisheries & Environmental protection
- LVEMP focus on aquatic habitat health & water drainage basins
- Looking for practical way to avoid environmental impacts
- LVFO monitors environment related to fisheries and aquaculture

## 5. Cooperation and coordination

- Links between fisheries and environment agencies?
- Cooperation between countries

## 6. Adaptive management

- Several iterations of FMPs, each drawing on experiences from past efforts

## 7. Precautionary principle.....not observed

- Risks not considered when Nile Perch introduced- Lesson learned!





## Strengthen the capacity to deliver

- Lake Victoria largest co-managed inland fishery in the world
- Scientific information for management from LVFO & LVEMP
- Many challenges remain
  - Despite co-management, fishery management still largely top-down
  - Hard to fully implement over-ambitious/over-costed plans?
  - Still dependent on external funding resources
  - Limited capacity to implement
- Need for pragmatic planning when setting objectives



## Key messages of case study

- EAFM is a step by step process; apply lessons learned along the way
  - increasing stakeholder engagement
  - broadening scale and scope of management
  - built on existing fisheries management
  - strengthen governance
- Many fisheries in the world are doing EAFM in part;
- Each country is a different stage of the journey





## Activity 1:

- Each group receives a card that displays one EAFM principle (some groups may have to consider two principles).
- In groups, discuss and score where you think your COUNTRY is along the continuum 0-5 for that principle.
- Using the lines set out on the floor, one representative for each principle paces out their score while holding the card.



## Activity 2: In groups

1. Identify the **challenges** your country might face in moving towards EAFM
2. Write each challenge on a card. (**ONE** challenge per card)
3. Now identify **opportunities** your country may have in moving towards EAFM (and in meeting the above challenges).
4. Write each opportunity on a separate card