

**The Regional Training Course on the United Nations
Convention on the Law of the Sea 1982 (UNCLOS 1982)
In Fisheries Perspective
6-9 November 2023
The Berkely Hotel Pratunam, Bangkok, Thailand**



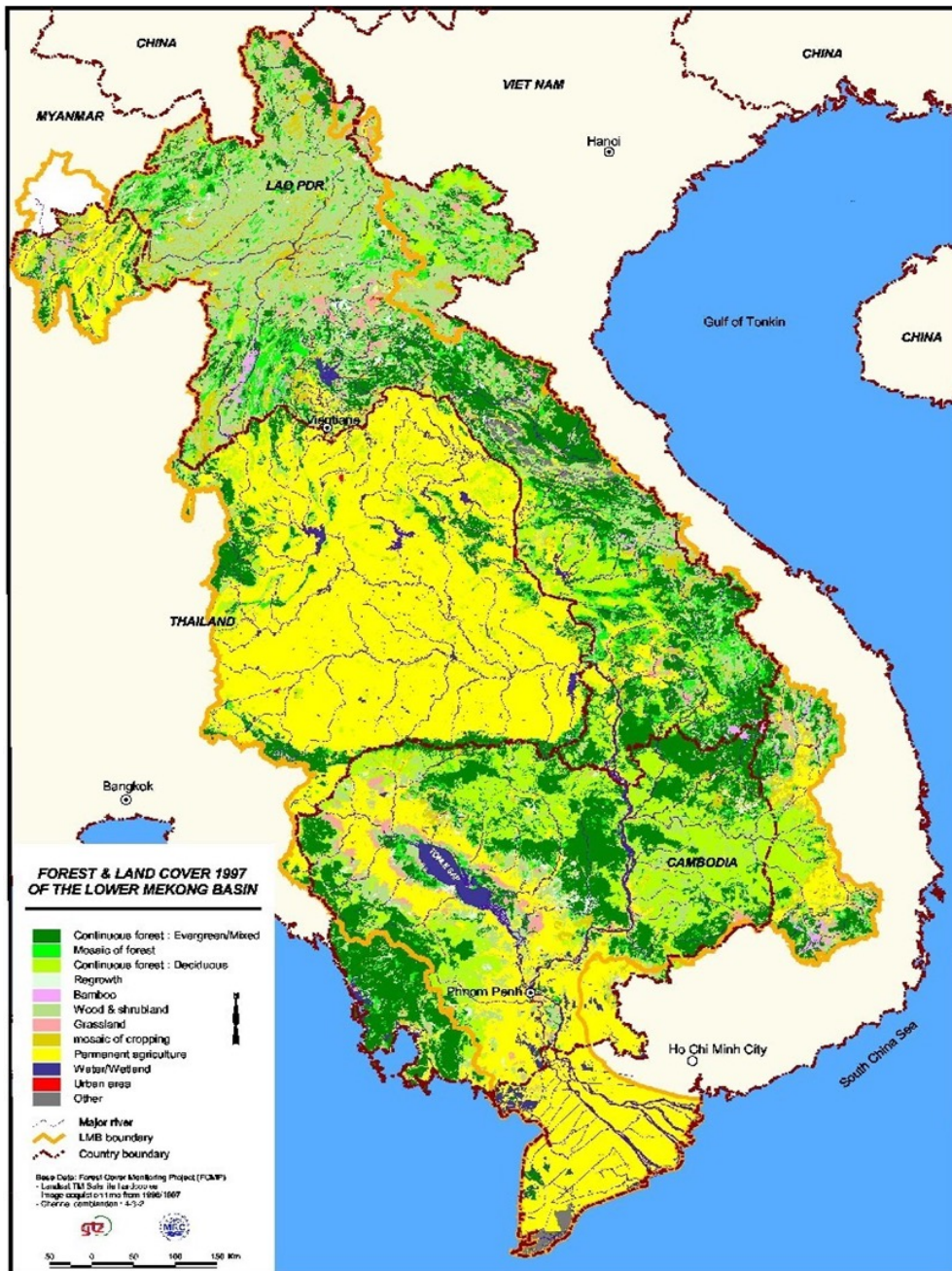
Presented by: Mr. Bouakeo Vongamnath

Presentation outline

1. General information of Country
2. IUU fishing and Fishing Capacity in the Mekong-Inland Fisheries of the country
3. Gaps, best practices, and lessons learned within the 4 indentified priority issues
4. Policies or /and frameworks or strategies on the 4 issues
5. Mapping of national and regional interventions and actions
6. Gap analysis and prioritization



1. General information of Country



- Laos is land lock country
- Population 6.9 Million
- Land Area 236,800 sq.km
- Arable land: 1,000,000ha (4.3%)
- Steep land: 54% > 30% slope
89% > 8% slope
 - Capture fisheries are believed to be more than 1.2 million ha
 - Aquaculture 42,000 ha
- 87.7% of land or catchments areas drains into Mekong Rv.
- Contributes ~ 35% of the Mekong River Basin flow.
- Almost all Laos territory has an enormous importance for fishery resources, including its rich aquatic biodiversity.

General information of Country con't



❖ **Abundant water resources important for fisheries & Aqua**

**There are 5 types of water bodies:
That have potentials for fisheries and
Aquaculture**

- 1) River: Mekong river and 14 tributaries + 5 river (North-Eastern) area**
- 2) Hydropower reservoirs (now 50)**
- 3) Irrigation reservoirs**
- 4) Wetland**
- 5) Rice-field**
 - Irrigated
 - Non-Irrigated (rain fall)

Total: estimate 1.2 million ha

General information of Country con't



Mekong-Lancang “same river”

Important:

- River flow
- Sidemen (nutrient)
- Livelihood of people especially along a river
- Fish migration
- Navigation
- Transportation (goods and etc)

Status of the fishery resources in Lao PDR

- The total area of water resources for inland capture fisheries is estimated to be more than 1.2 million ha.
- The estimated consumption of inland fish is approximately 167,922 tonnes per year.
- Consumption of other aquatic animals is estimated at 40,581 tonnes per year.
- Total estimated value at almost US\$150 million per year.
- The people of Lao PDR, especially in the rural communities which account for more than 75 per cent of the population, still depend upon the country's fish and other aquatic animals as their most reliable sources of animal protein intake.
- More than 481 fish species have been identified in Lao PDR, including 22 exotic species, and more species are being discovered regularly.
- Among other aquatic animals, about 37 amphibians, seven species of crabs and 10 species of shrimps have been recorded, but these records would cover only about 15 per cent of the estimated total.

(Phonvisay, 2011)

Water resources ecosystems and fisheries



Mekong Mainstream with fishing activities



Nam Hinboun in the central part of Laos



Nam Ou, the Mekong tributary in Luang Prabang



Fishing in a stream draining to Nam Ngum

Water resources ecosystems and fisheries



Nam Houm Irrigation Reservoir



Nam Ngum Reservoir



Siphandone Wetland Area



The mouth of Nam Kading

Rural involvement in fishing activities



Species diversity and importance of indigenous species

Fish fauna in the Mekong and its tributaries in Lao PDR are very rich in species diversity. More than 481 species out of 924 species in the Lower Mekong Basin have been identified in Laos (Kottelat 2001). However, the other aquatic animals and plants are still poorly known in term of systematic stock assessment.

At the present, the Aquaculture of Indigenous Mekong Fish Species Project (AIMS) has conducted research on six indigenous fish species, namely *B. gonionotus*, *C. microlepis*, *C. molitorella*, *M. chrysophekadon*, *O. exodon*, *Puntioplites falcifer*, and *Clarias macrocephalus*. The research reveals the potential for producing fish fingerlings on farms.

A number of indigenous fish species have been found in various types of farming, either from collecting the fry from the wild, artificial reproduction in captivity or the reproduction in fish pond culture of the private farms and some of government hatcheries. These indigenous species include, for example, *Hampala macrolepidola* (pa soud), *Probarbus jullieni* (pa eun ta deng), *Pontioplites falcifer* (pa sakang), *Clarias batrachus* (pa douk na), *Mystus numerous* (pa kot leuang), *Hemibagrus wyckioides* (Pa khueng), *Pangasias bocourti* (Pa phoe), and *Pangasius krempfi* (pa souay hang leuang).



C. molitorella



Clarias macrocephalus



C. microlepis



Mystus numerous



M. chrysophekadon



Pangasias bocourti



Puntioplites falcifer



Pangasius krempfi



O. exodon



Hemibagrus wyckioides



B. gonionotus



Pangasius larnaudii



Probarbus jullieni



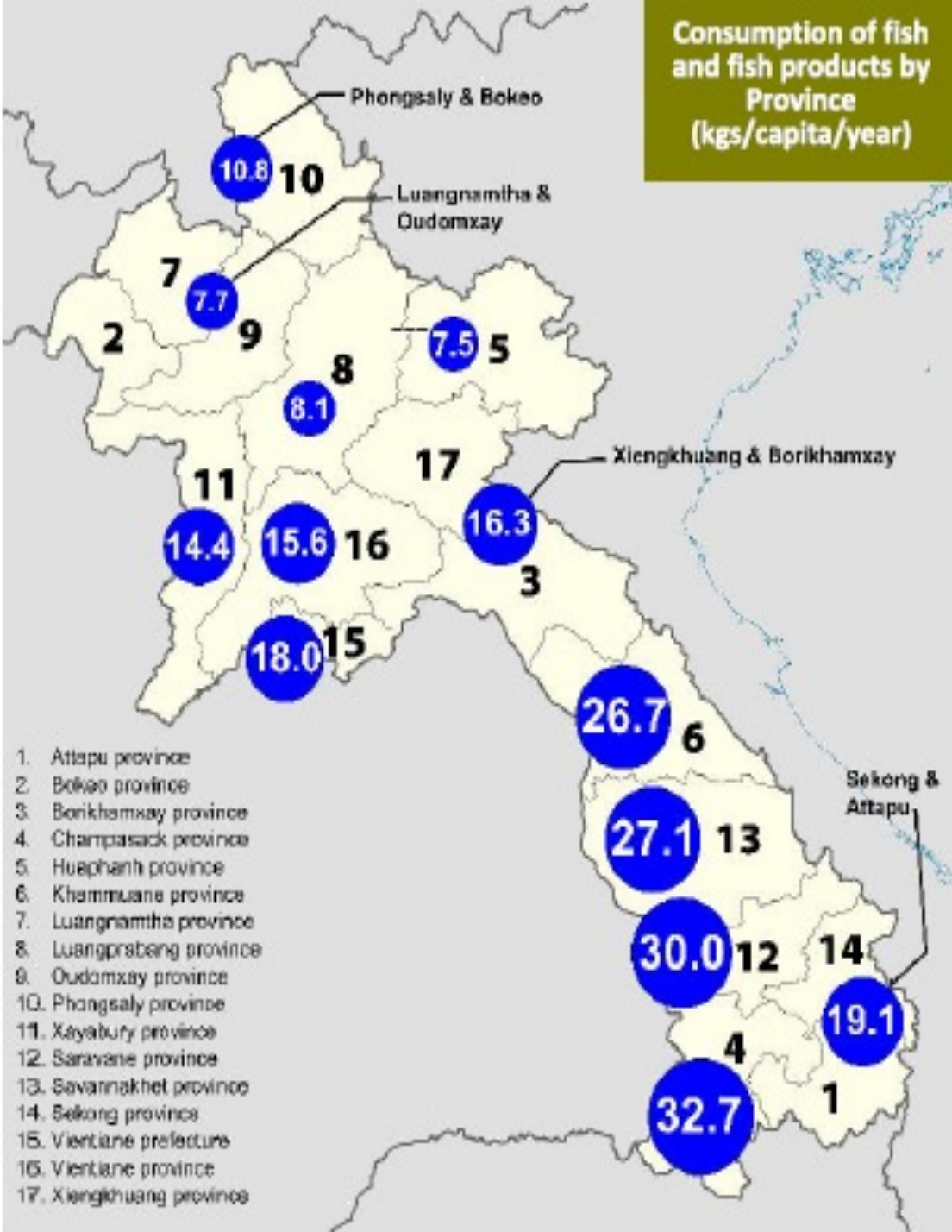
Wallago attu



Hampala macrolepidola



Channa striata



Edible quantity of fish and fish products consumed (capita/year)

19.1 kgs

Fish and fish products as a share of total protein consumption

10%

Annual fish and fish product consumption

125,532 tonnes¹

Data year

2007/8

Data source : Ministry of Planning and Investment, Department of Statistics, Household Survey² (LECS4)

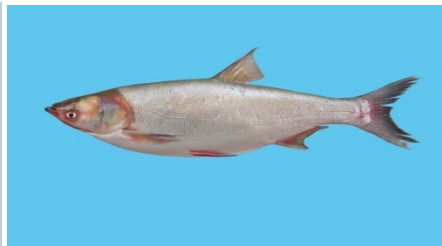
Main species for culture

Exotic fish species commonly cultured in Lao PDR:

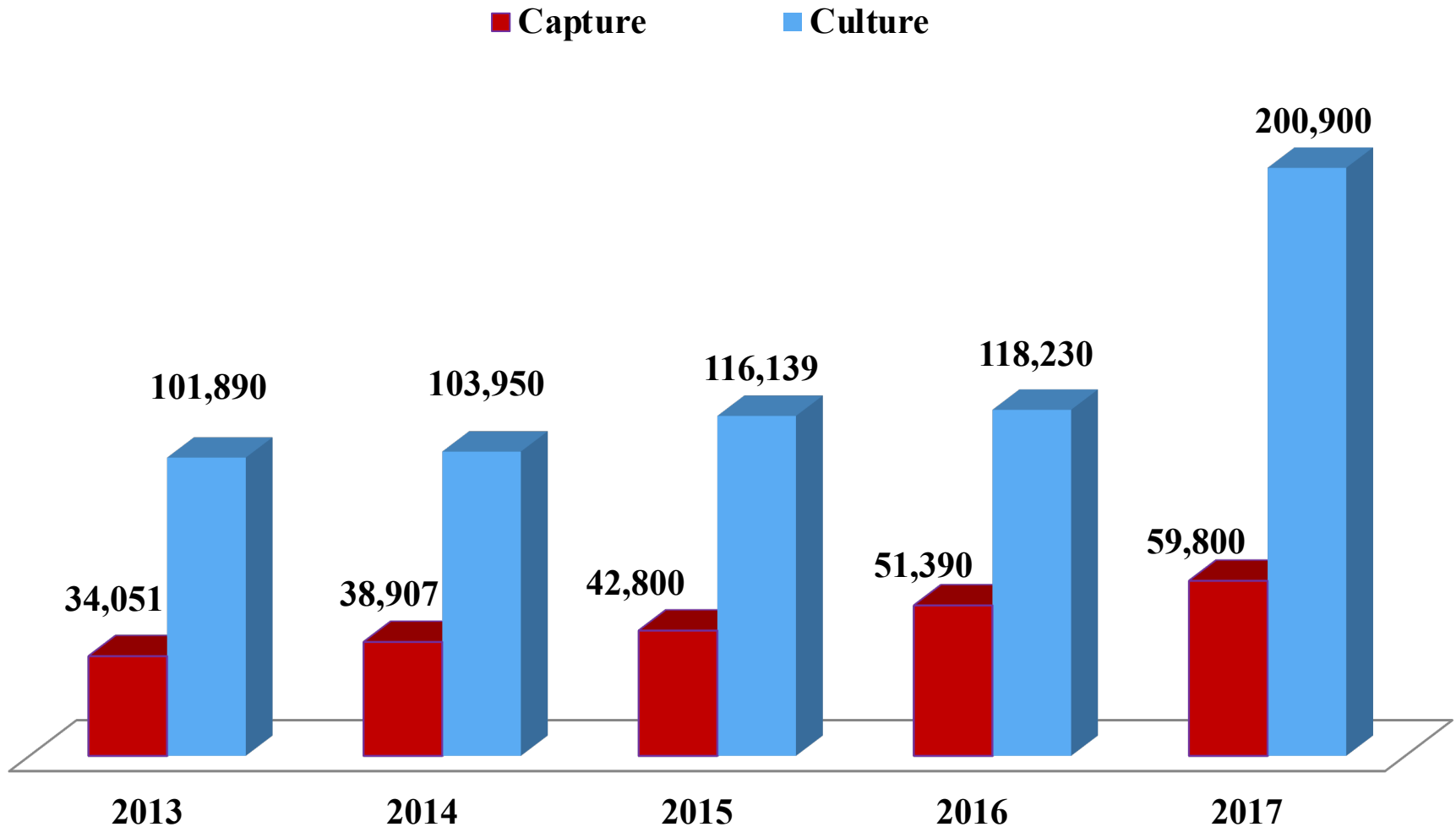
- *Chinese carps (bighead, silver carp, grass carp)*
- *Indian carps (rohu, mrigal, catla)*
- *Tilapia*
- *Aquatic (Frog, eel, crab and other)*
- *Some indigenous fish*
- *Common carp (Cyprinus carpio)*



ປາຂວາຍຫາງເຫຼືອງ (Pangasius krempfi)



Types of Fisheries and Estimated Fish Production (2013- 2017)



National Strategy for Fisheries Management and Development from present to 2025

National Policy concerning the development of the fisheries sub-sector:

The government's highest priority to obtain food self-sufficiency both in Agriculture and fish products to overcome poverty in rural areas and to improve the nutritional level as well as economic status.

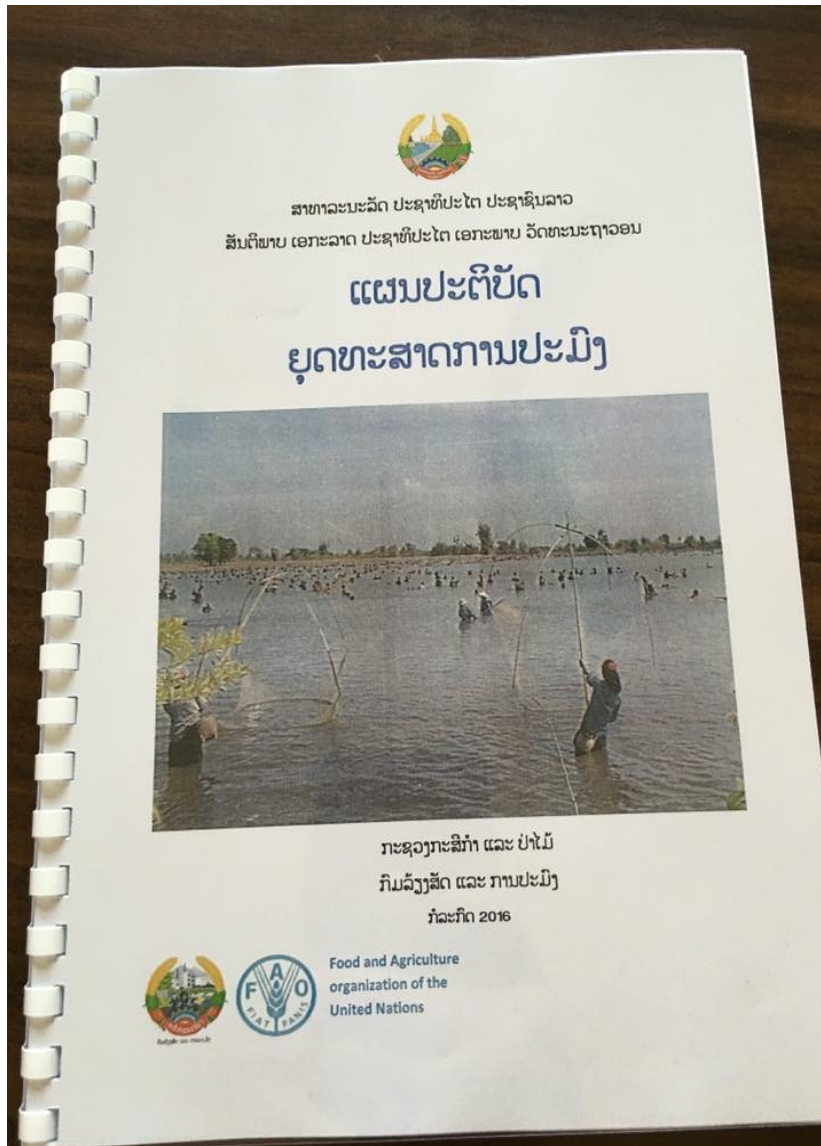
Current national agricultural and fisheries development policies will centre around:

- 1) Meeting food security (specially the fish protein intake of the population averaging actually 23 kg/cap/year and projected by the year 2020 about 30 kg/cap/year and 2025 about 33;**
- 2) Ensuring the provision of fishery products as commercial commodities for local market and for future export;**
- 3) Supporting the rural development in the perspective of poverty alleviation and income generating opportunity and a complementary source of cash;**

National Strategy for Fisheries Management and Development from present to 2025

- 4) Contributing to the gradual reduction of slash & burn shifting cultivation by integrating fish culture into the upland farming systems;
- 5) Contributing to the sustainable use, appropriate management and protection of aquatic resources including aquatic bio-diversity;
- 6) Upgrading and establishing appropriate basic infrastructure required for further aquatic resources research, management and development for the country;
- 7) Strengthening, upgrading and performing the technical support services in Research, Extension, Management and Development of the sub-sector such as Living Aquatic Resources Research Institute, Inland Fisheries Development Center, Aquatic Animal Health diagnostic Network.

Strategic Implementation Plan (2016-2020)



Three priority areas:

- 1) **Fishery production for food security;**
- 2) **Fishery production for commodity and trade;**
- 3) **Sustainable fisheries mnt. & devlpt. with focus on CC adaptation.**

Eight priority programs:

- 1) **Zoning for fishery mnt. & devlpt;**
- 2) **Increasing aquaculture productivity;**
- 3) **Sustainable fishery management and CC adaptation;**
- 4) **Fishery research;**
- 5) **Fishery extension and services;**
- 6) **Basic infrastructure improvement;**
- 7) **Human resources development;**
- 8) **Monitoring and evaluation.**

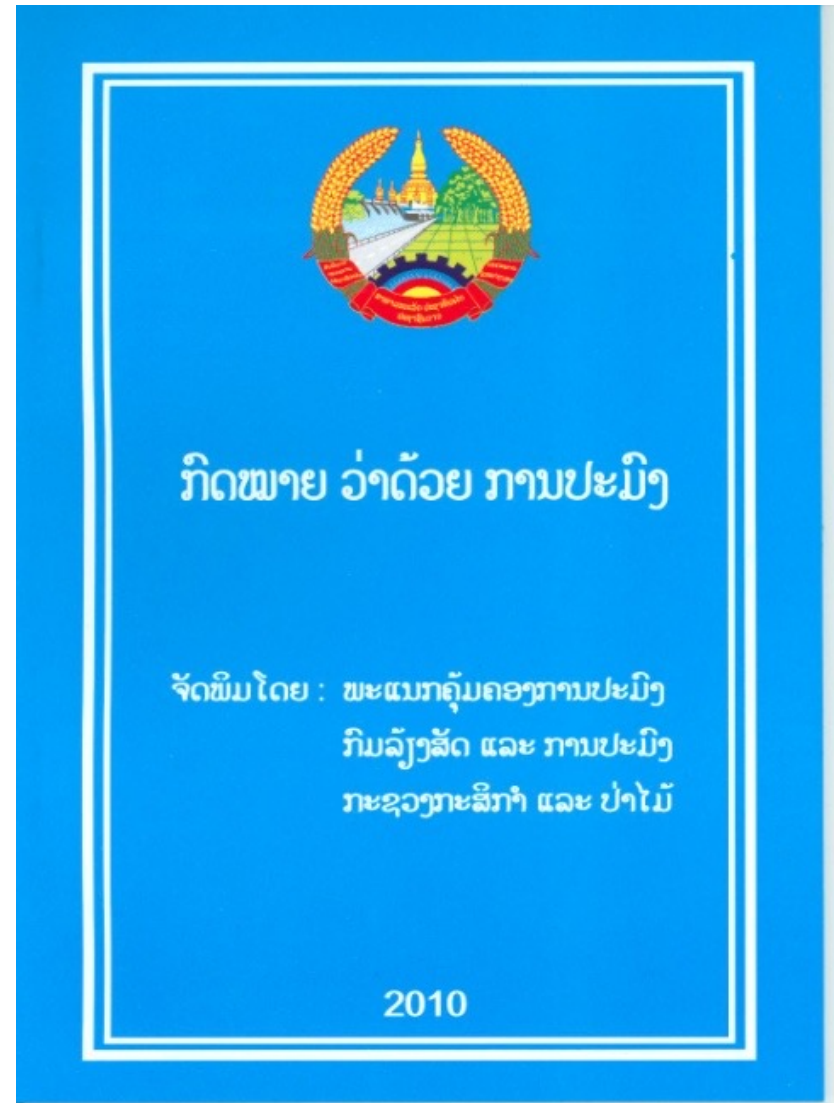
Problems and Challenges

- **Food security and poverty reduction;**
- **Increasing population > consumption demand > illegal fishing / overfishing / destruction of fish habitats > declining fishery;**
- **Limited Govt. capacity for fishery management;**
- **Management and development zones not yet identified;**
- **Increasing aquaculture, but need more effective research and development, and management;**
- **External factors: deforestation, land erosion, land use changes, loss of wetlands, urbanization, water pollution, impacts from climate change (drought and floods, natural disasters), etc.**
- **Exploitation of natural resources (land, water, forest);**
- **Impacts from other development sectors (e.g. Hydropower, mining, irrigation, agriculture, industry, water use, navigation, infrastructure development, etc.).**

2. Current situation of IUU fishing Issue

2.1. Illegal fishing:

- Lao fisheries law very new Just developed and declared in 2009
- We still need to dissemination fisheries law to the district and village level (don't get cover all districts and village)
- Population increase
- Demand fish for food increase
- Over fishing (high market demand)
- Illegal fishing gears (ex: electro fishing, dynamite, poison)



2. Current situation of IUU fishing Issue con't

2.1 Illegal fishing

- Fishing in Lao “ open access”
- Development (building, houses, hotel, restaurant, plant ect)
- Hydropower
- Mining , sand gravel
- Agriculture (use chemical)
- urbanization
- Industry
- Domestic water use
- Deforestation
- Do not have fishing license system
- Registration local fisherman , fishing boat



2. Current situation of IUU fishing Issue con't

2.2 Unreported

- Report system from PAFO to DAFO to FMC
- Data collection
- Human resources
- Lack of coordinate between center to local
- Lack of budget
- Lack of equipment/vehicle (technology for communicate

2. Current situation of IUU fishing Issue con't

2.3 unregulated

- Do not controlling
- Fisheries law did not access to people and community
- Some where uses illegal equipment
- Over fishing



3. Most critical 5 main issue/Challenges on IUU fishing

1. Fishing in Lao PDR ‘Open access’ there is no fishing license and fisherman registration and boat license
2. Fisheries Law still not access to local people
3. Unreported
4. Upregulation compliance
5. Bring the stealthy illegal equipment
 - Electro fishing ,Dynamite , Poison, mask



4. Criteria to response for IUU fishing issue

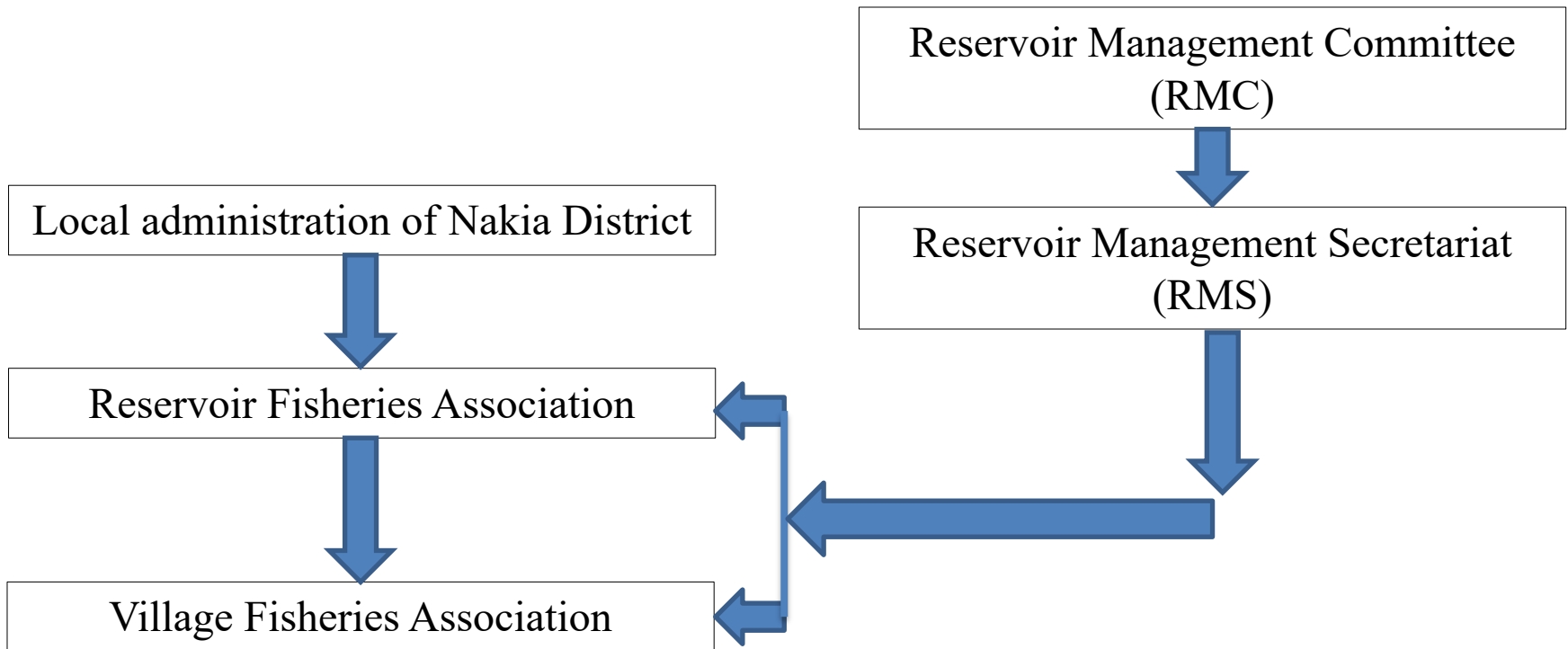
1. Drafting by law regulation (MAF Decision, Decree)
 - Establish fisheries inspection officer
 - Roles and responsibilities of ‘Fisherman Association’
 - Enforcement fisheries law
2. Disseminate fisheries Law to district and village level (fisheries Communication)
 - Establish mechanism coordinate between Center with local
 - Measures to fine
3. Promote to establish for “FMCs”
4. Development Strategy Implement Plan 2025‘SIP’
5. Identify priority project
 - 4 priority areas :
 - Aquaculture
 - Capture Fisheries
 - Adaptation to CC
 - Capacity building



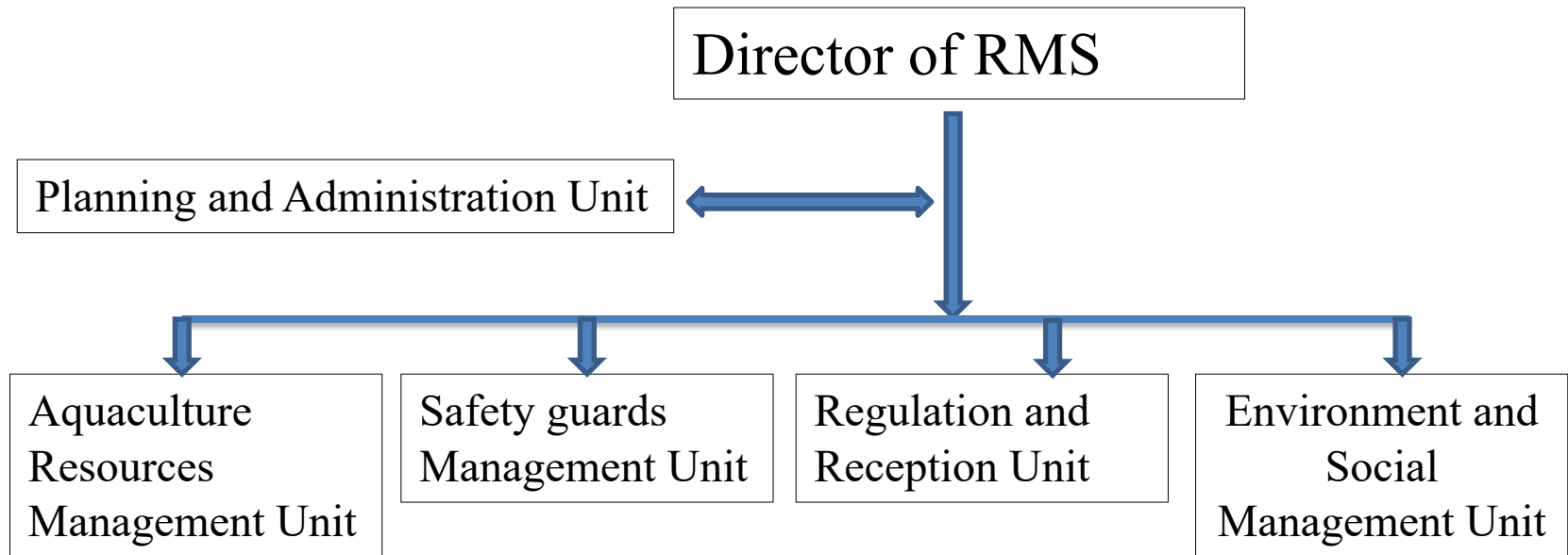
5. Some lesson learn to solving of IUU fishing Issue

5.1 Fisheries management in Namtheun 2 hydropower reservoirs

- Organization of management committee in the Nam Theun 2 hydropower reservoir



5.2 Organization in Reservoir Management Secretariat (RMS)



1. Fisheries management

1.1. Fisherman License :

Catch license



1.2. Supplies the fisheries Equipment's



1.3 Landing site management



1.4. Boat legislation



1.5. Processing promotion products



1.6 Survey and Monitoring Fish species migration



1.7. Annual Releasing Fish



1.8 Village patrolling Unit



1.9 Capacity building



6. Expectation and Recommendation

- Support for a pilot project on IUU in Lao PDR (in Lao are inland fisheries and small scale)
- Project 1: in reservoir
- Project 2: in River
- Capacity building for technical staff DLF, PAFO, DAFO, FMCs and other
- Training and Study tour

Thank you for attention

