Vicious circle of fish losses, vulnerability of natural resources and the poverty trap

Scope & Purpose
This poster illustrates the findings of a situational analysis on post-harvest systems conducted in 2013 and 2014 in the Volta Basin, a shared water body in West Africa through the NEPAD-FAO Fish Programme (NFFP), within the framework of a collaborative undertaking between FAO, the Planning and Coordinating Agency (NPCA) of the New Partnership for Africa’s Development (NEPAD).

Why the Volta Basin?
(i) The Basin is one of the poorest areas of Africa, thus making issues of food and nutrition security a priority

(ii) The ecosystem of the Volta Lake, suggests that climate change and variability may have an impact, therefore exacerbating the level of vulnerability.

(iii) The Basin spreads over six West African countries (43% in Burkina Faso, 42% in Ghana, and the remaining 15% in Togo, Benin, Cote d’Ivoire and Mali).

This geographic coverage and predominance of small-scale fisheries provide the opportunity to document multiple dimensions in appraising post-harvest losses (PHLs) and fish trade.

The study was thus commissioned to identify inefficiencies in the post-harvest chains, then develop elements for sustainable reduction of post-harvest losses and greater regional trade.

Methodology
A stepwise, phased and more inclusive approach: (i) takes into account the sustainable value chain elements and (ii) goes beyond the common prism of PHLs occurrence.

Secondary source data review for an overview of the status of PHLs, how they are reflected in the various sectoral documents. The collated information were instrumental in the selection of specific sites and value chains.

Primary data collection in selected sites: 4 major riparian sites in Lake riparian sites in Burkina Faso, Ghana and Togo-between 40-75 percent of the Basin’s outputs (totalling between 70 and 93 percent of the total production share from the Basin of each of the three countries) were surveyed through:

The Exploratory Fish Loss Assessment Method, based on the accelerated method of participatory rural appraisal, Questionnaire Loss Assessment Method (QLAM) to cover a variety of parameters. Some load tracking was conducted on specific issues.

The check list used in this process mainstreamed socio-economic issues including:
- Gender
- Policy
- Climate change dimensions
- Consumer roles
- Natural resources

RESULTS & DISCUSSION
Significant PHLs, nearly 30% of the landings, with levels ranging from 13.5% to 45.5% depending on the country. These figures are comparable to the average global estimates of 35% for the loss &wastes of fish and seafood.

(i) High losses as a result of fish of poor quality (quality or qualitative fish loss) or is of illegal size; incommensurate to the volume of fish physically removed from the supply chain (physical or quantitative loss), thus concurring previous studies.

(ii) The drivers of PHLs are multifactorial, starting from upstream (prevailing conditions in the ecosystem within the fishing) all the way to the level of consumers: In fact, while 65% of causes are linked to the lack of improved technology, infrastructure and good manufacturing practices, the other 35% are due to the actors’ social and cultural dimensions of vulnerability, and the lack of responsible governance, regulations and their enforcement.

(iii) Real or potential impact on three levels:

(iv) That coping strategies resulting in further PHLs and interwoven factors have paved the way for a vicious circle where the threat to resource sustainability, fishers’ resilience to climate variability, food security due to PHLs may lead to increasing the poverty trap.

Subsequent proposed interventions informed a regional strategy aimed to strengthen the efficiency, competitiveness and sustainability of the fisheries in the riparian countries, an instrument in support of the implementation of the African Fisheries and Aquaculture Policy Framework and Reform Strategy (AFFPS & RS).

Drivers

Conclusions
This inclusive approach that fully took into account the elements of the sustainable value chain in the existing post-harvest loss assessment (PHLA) tools enabled to draw a fairly complete picture of the causes and effects while putting in context the complex patterns in the occurrence of PHLs.

It is the first ever of its kind to raise these intricate multidimensional issues and clearly establish the cycle of poverty and vulnerability directly perpetrated within the PHL context.

It highlights that reducing PHLs efficiently and sustainably requires thinking outside the technology and infrastructure box and consider addressing other important factors that undermine resource sustainability, efficient and competitive post-harvest systems and trade.

The strategy was developed to consolidate the efforts of the countries in reducing PHLs. But overall, the approach followed, the fundamental dimensions raised, and lessons learned can create good practices in other geographic contexts. They will be useful in informing the implementation of the recently endorsed global instrument, the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication.