FPIs Application in Liberia Fisheries

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WORLD BANK GROUP

INTRODUCTION

- **West Africa Regional Fishery Program (WARFP)** was a first regional fishery program in WB after nearly two decades' silence
- **A number of fisheries development projects are approved every year,** recognizing the importance of fisheries and aquaculture in coastal communities
- **How to evaluate the project performance and track progress is a constant concern.**
- **FPIs are used to evaluate a World Bank project in Liberia**
  - ***Objective:*** To strengthen the capacity of Liberia to govern and manage targeted small-scale fisheries, reduce illegal fishing and increase local value added

Challenges of Fisheries Development Projects

- **Sector challenges**
  - No data or lots of missing data
  - Lack of economic and social indicators
  - Lack of evidence on the policy reform and investment priorities
  - Lack of measurement of the project progress or impact
- **Liberia country context**
  - Per capita GDP: $455 (2016)
  - Fragility, conflict and violence (FCV) country
  - Very low capacity

Too often, only the process is evaluated

REPEATED USE OF FPIS IS A TOOL TO MEASURE PROJECT IMPACT

- **Measure Progress/Impact**
  - While the initial main objective of the FPIs was to compare different fisheries, repeated scoring can help measure progress and impact
- **This can be used for a specific project**
  - ***Across time:***
    - Score the targeted fishery before the project start as a baseline, rescore it during the project implementation and/or at completion, and possibly some year after
  - ***Across fisheries:***
    - Scoring comparable fisheries at the same time provide strong controls and comparison
  - ***Across global database***
    - The FPI database can also be used to compare at global level

CASE STUDY IN LIBERIA

- **Nationally**
  - Approximately 33,000 fishers along a
  - 570km coastal line
- **Three major fishery segments**
  - ***Fanti Boats:***
    - About 880 larger motorized vessels which are generally referred to as ‘Fanti’ boats.
    - Owned and operated by Ghanaian fishermen who live in Liberia
    - Target small pelagic species
  - ***Kru boats***
    - Small wooden dug-out non-motorized canoes
    - Typically less than 7 m
    - Use purse seines, beach seines, gillnets, long line, and hook and line to capture coastal shallow and deep-water demersal and small pelagic
  - ***Industrial vessels***
    - Tuna fleet through EU Sustainable Fisheries Partnership Agreement (SFPA)
    - Demersal trawlers through licensing (10 so far)

Country Profile

LIBERIA

TABLE C.2. SUMMARY OF LIBERIA ARTISANAL FISHERY IN ROBERTSPORT AND SEMI-INDUSTRIAL FISHERY IN MARSHALL

Fishery Type	Species	Gear	Characteristics	Management	Vessels
Artisanal (Kru)	• Shallow and deep-water demersal • Small pelagics • Flying fish • Barracuda • Shark	• Cast nets • Floating and bottom gillnets • Hand lines • Set hook and line	• Highly seasonal (mainly fish in dry season) • Less mobile • Local Liberians • Processors predominantly smoke fish for local consumption	• Regulated open access • Local fishing associations focus on equitable access to fish and safety at sea • Separate fishing associations and sea chief for artisanal/ semi-industrial • West Africa Regional Fisheries Program (WARFP) is in the process of setting up a CMA in Robertsport with plans to implement a Territorial Use Rights in Fisheries (TURF)	Small dugout canoes with paddles or sails  *Photo credit:* Paul Donovan.
Semi-industrial (Fanti)	• Primarily small pelagics • Shallow and deep-water demersal • Sailfish • Shark	• Large ring nets • Gillnets • Hand lines	• Highly seasonal • Highly mobile (migrate entire coastline) • Harvesters of Ghanaian ancestry • Processors predominantly smoke fish for local consumption		Large planked canoes with outboard engines  *Photo credit:* Varasca, Panoramio.

FIGURE C.3. SUMMARY OF LIBERIA CASE STUDY OUTPUT AND INPUT SCORES

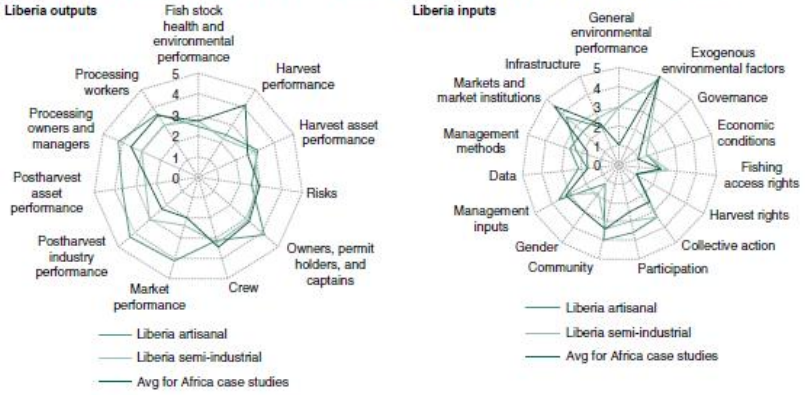
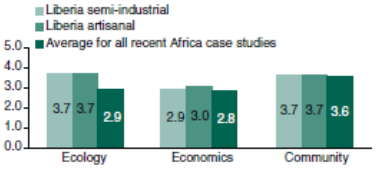


FIGURE C.4. ECOLOGY, ECONOMICS, AND COMMUNITY SUSTAINABILITY FOR LIBERIA ARTISANAL FISHERY



RELATIVE STRENGTHS

Ecological indicators are above average.

- Due to the implementation of a trawler spotter program, local experts consider the fish stock to be healthy as overfishing declines. There are few bycatch issues.
- Recent efforts have led to a reduction in the number of industrial vessels and less illegal activity inside the Inshore Exclusion Zone (IEZ). Fishermen report that this has increased fish stocks and landings.

Community indicators are slightly above average.

- Relative to their local communities, participants in the fishery are earning good livelihoods.
- The semi-industrial fishery is predominantly people of Ghanaian ancestry who have been living in the local community for extended periods, but there are also a larger number of migratory harvesters in this fishery.
- Although there is a level of mistrust and occasional conflict between the two fleets, there is frequent cooperation between artisanal and semi-industrial harvesters (information sharing about fish location and spatial rules that regulate harvest technology).

RELATIVE WEAKNESSES

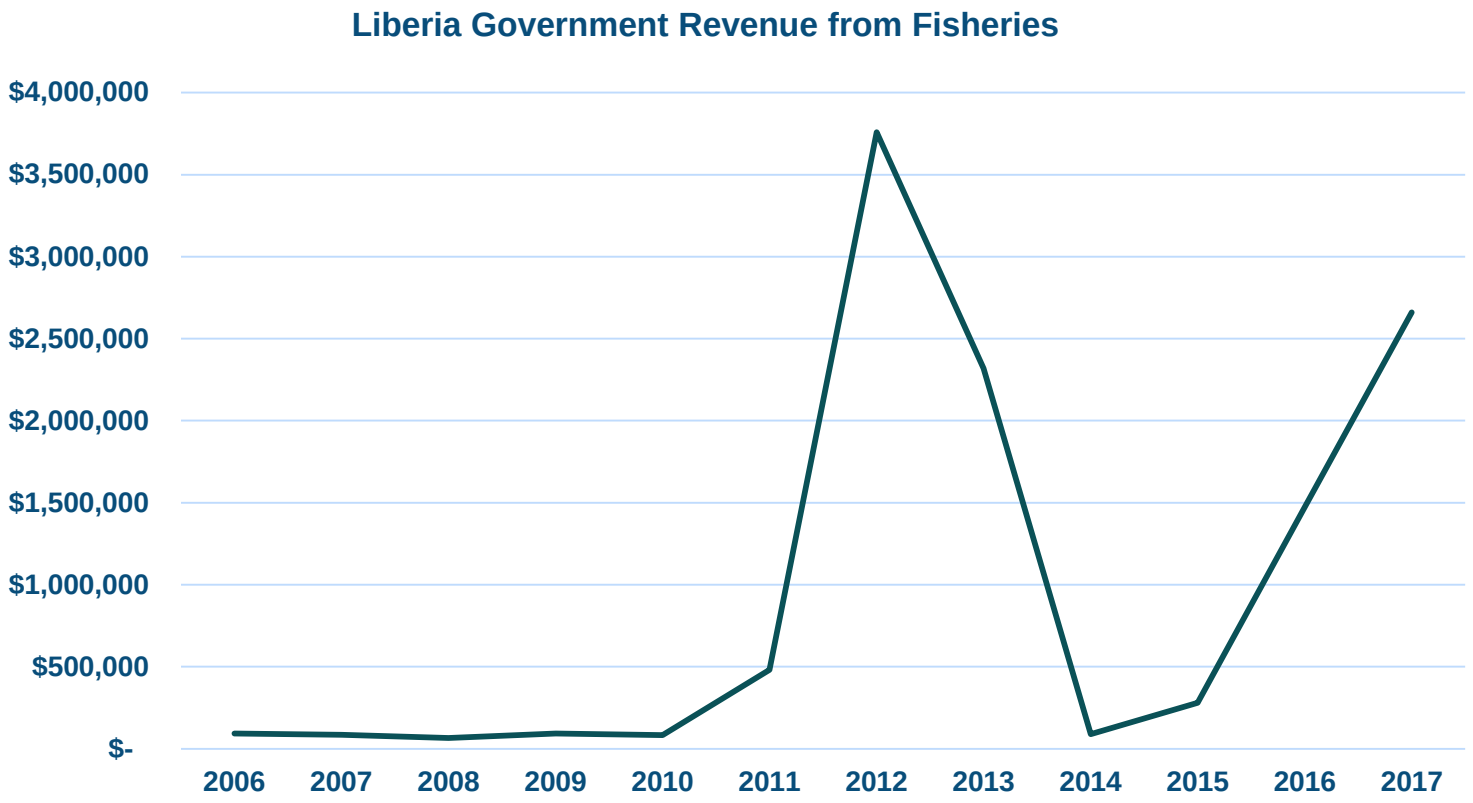
Economic indicators are only slightly above average.

- Prices are reported to be generally increasing but show large seasonal variation due to changing availability of fish, which exposes the postharvest sector to market risk.
- There is very little harvest that goes to international markets.
- The landings pricing system is not competitive—there are a large number of first buyers/fishmongers but harvesters tend to sell only to one buyer (often their wives) and frequently have credit relationships with the buyer. It is difficult to gain access to other credit.
- First buyers tend to try to associate both to influence prices and to exclude outside competition, as securing supplies is an important factor.
- Harvest safety is an important concern, particularly in the artisanal fishery.

Rights inputs are below average.

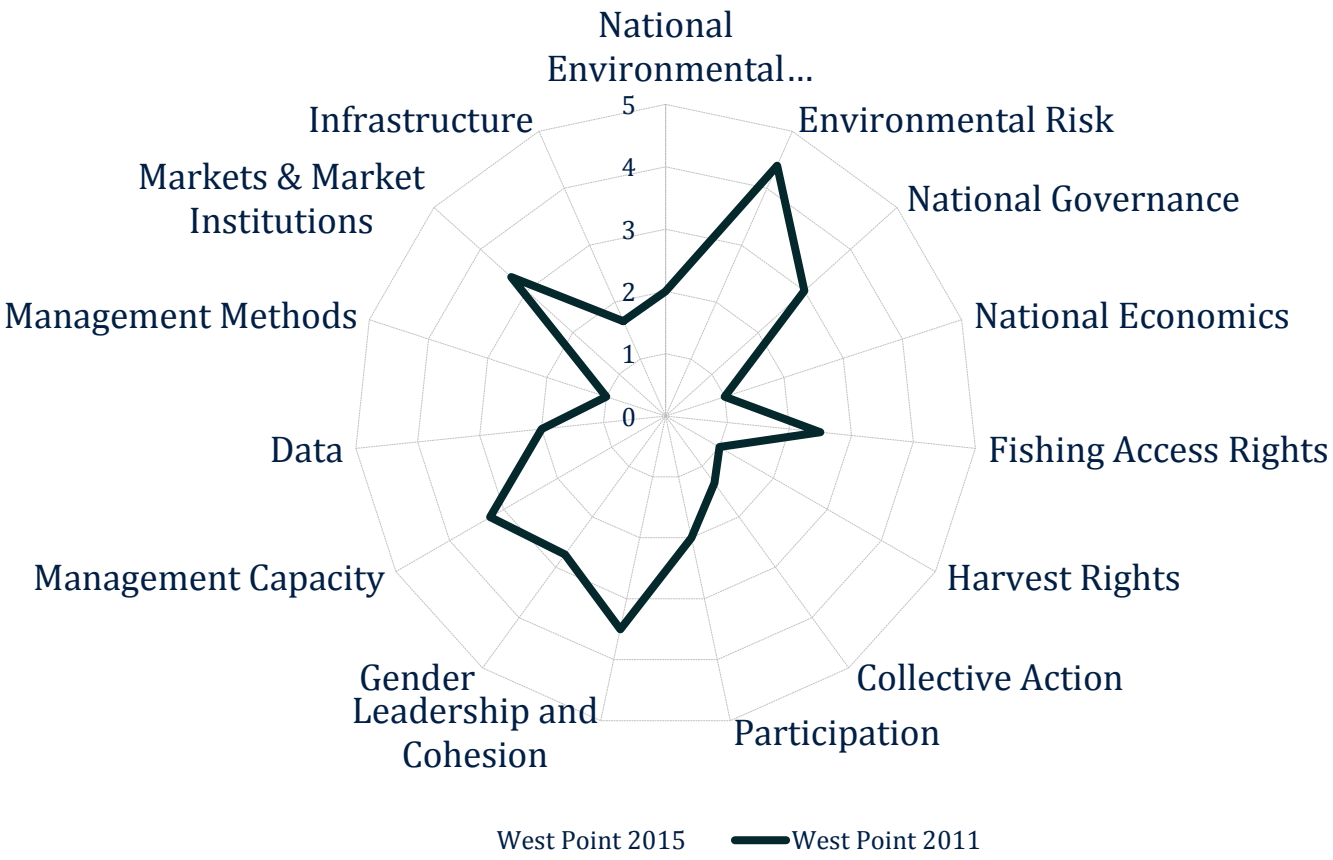
- The tradition of regulated open access and highly migratory harvesters mean that establishing TURF boundaries and setting up RBM may be difficult.
- Infrastructure, expenditure on management, and participation in comanagement (days in stakeholder meetings and industry financial support) are all below average.

ACROSS TIME COMPARISON



FPIs were applied by Patrick Sayon in both 2013 and 2016 in West Point fishing communities.

APPLYING FPIS TO LIBERIA ARTISANAL FISHERIES IN WEST POINT IN 2011 AND 2015: INPUTS



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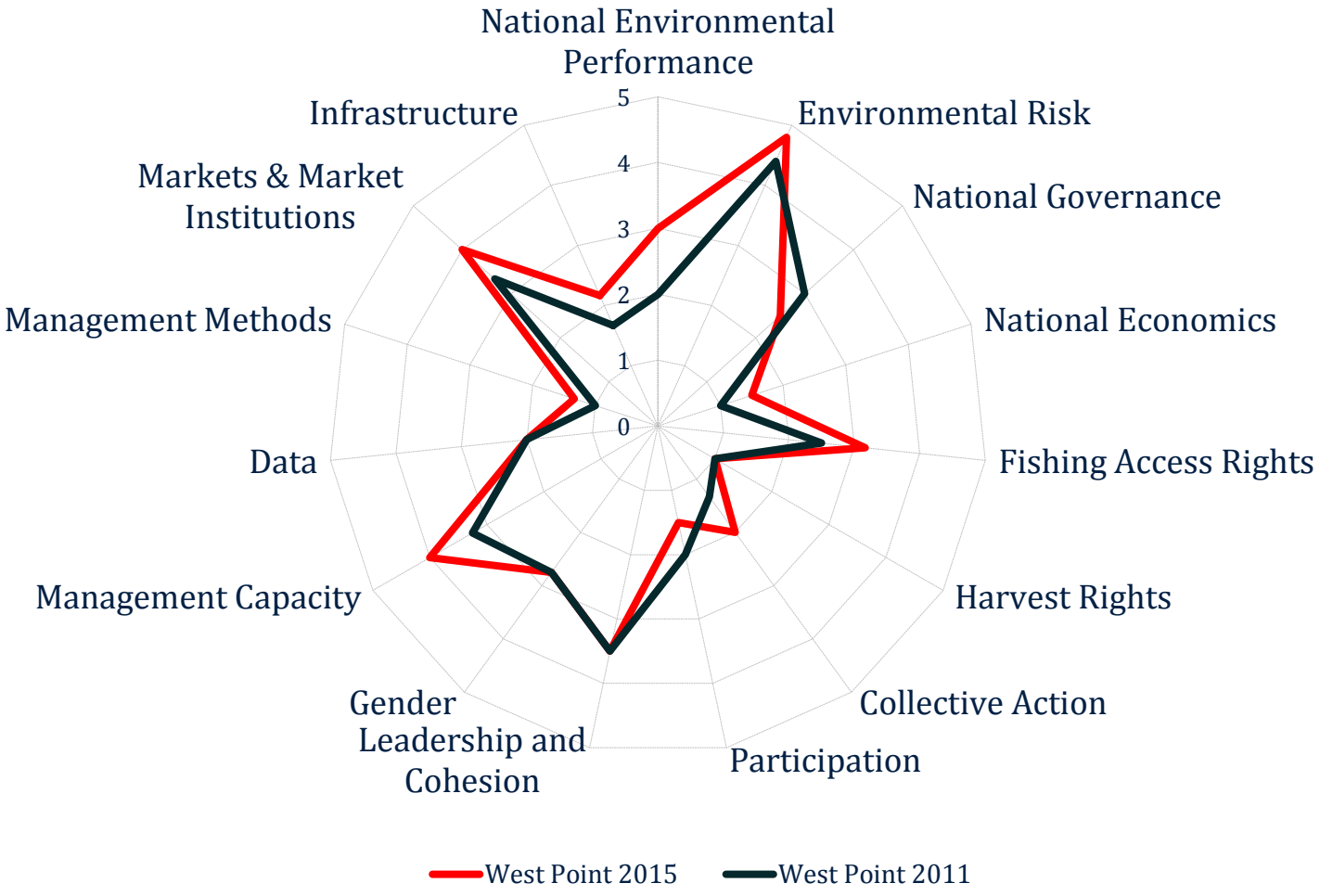

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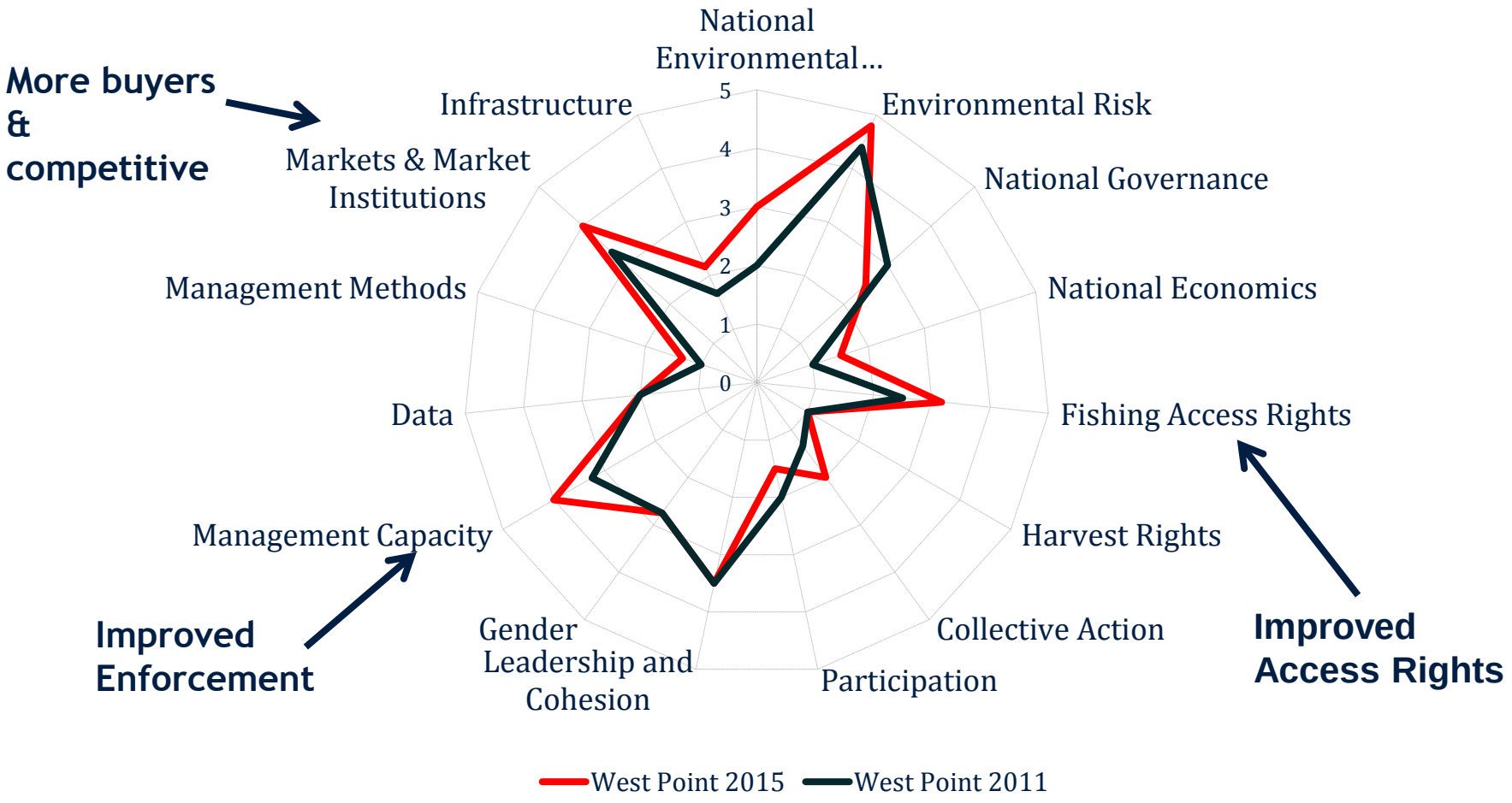

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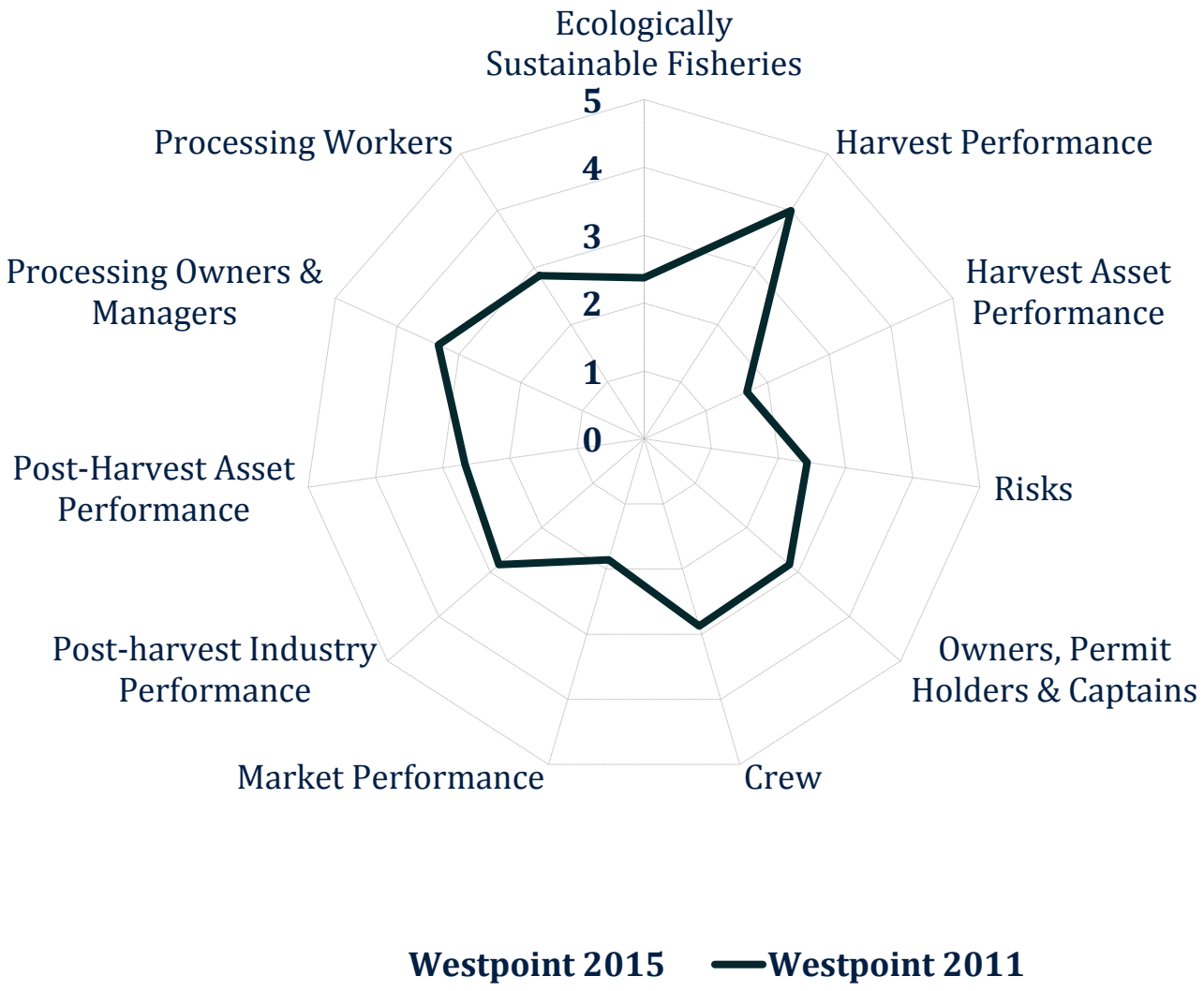

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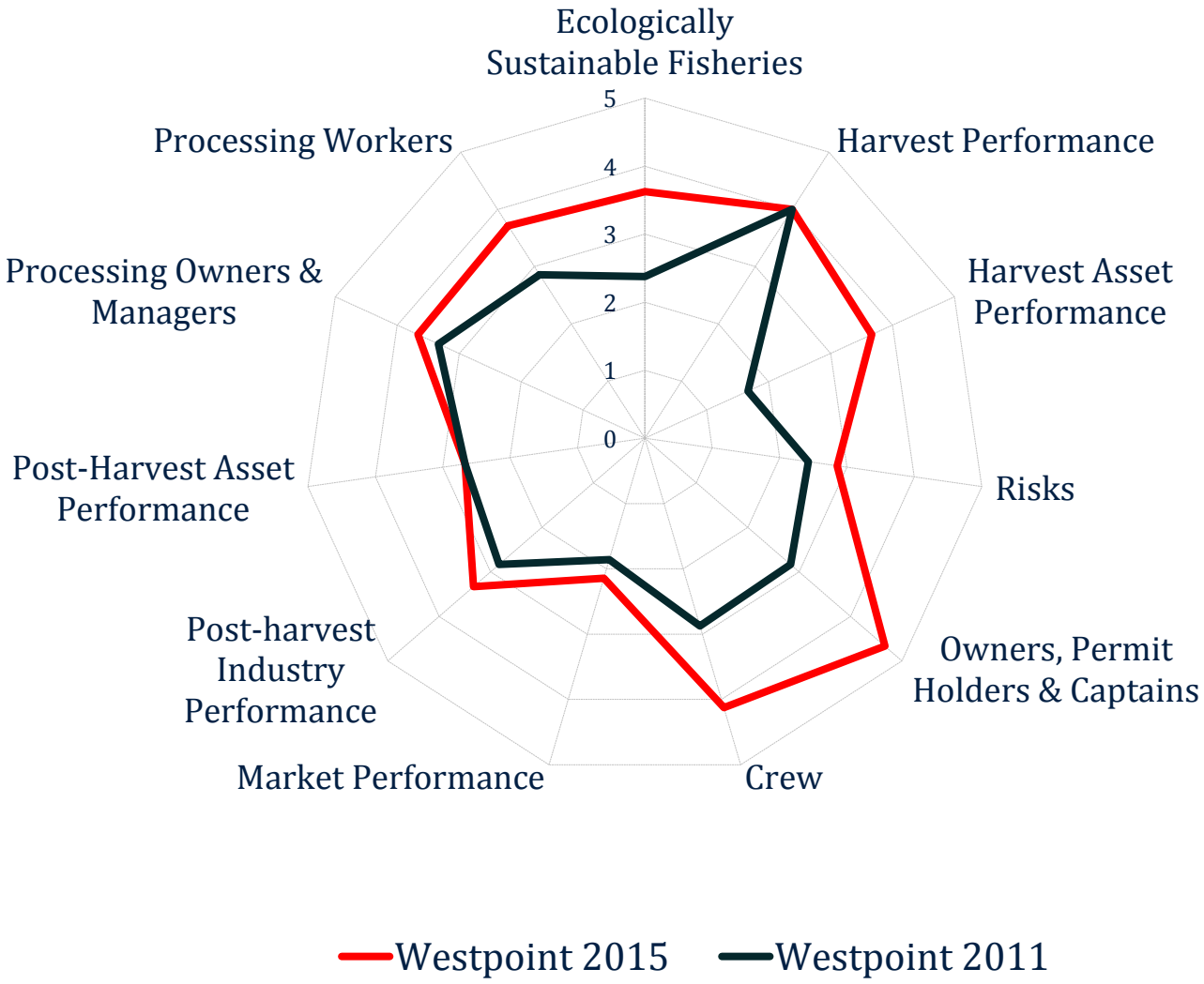

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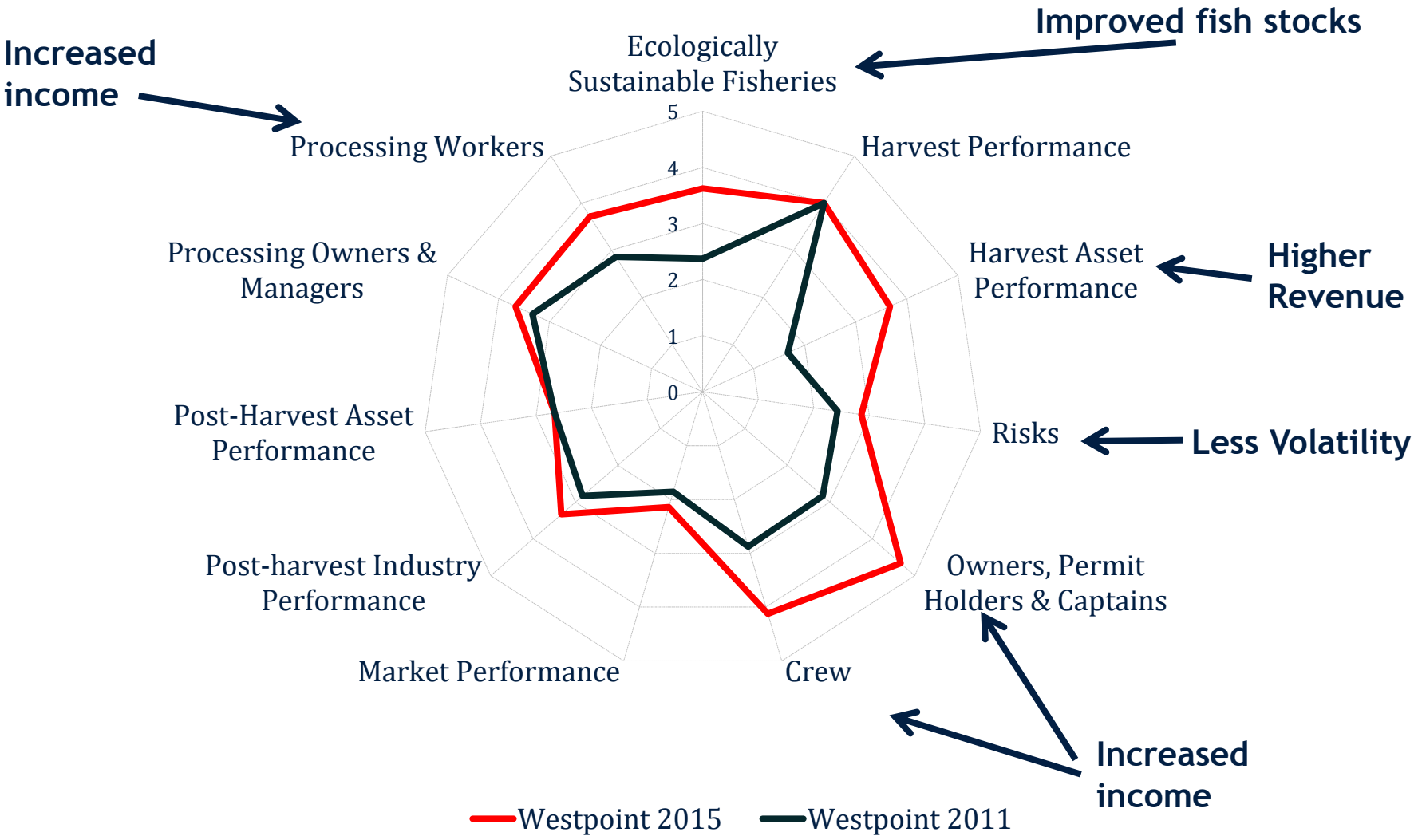
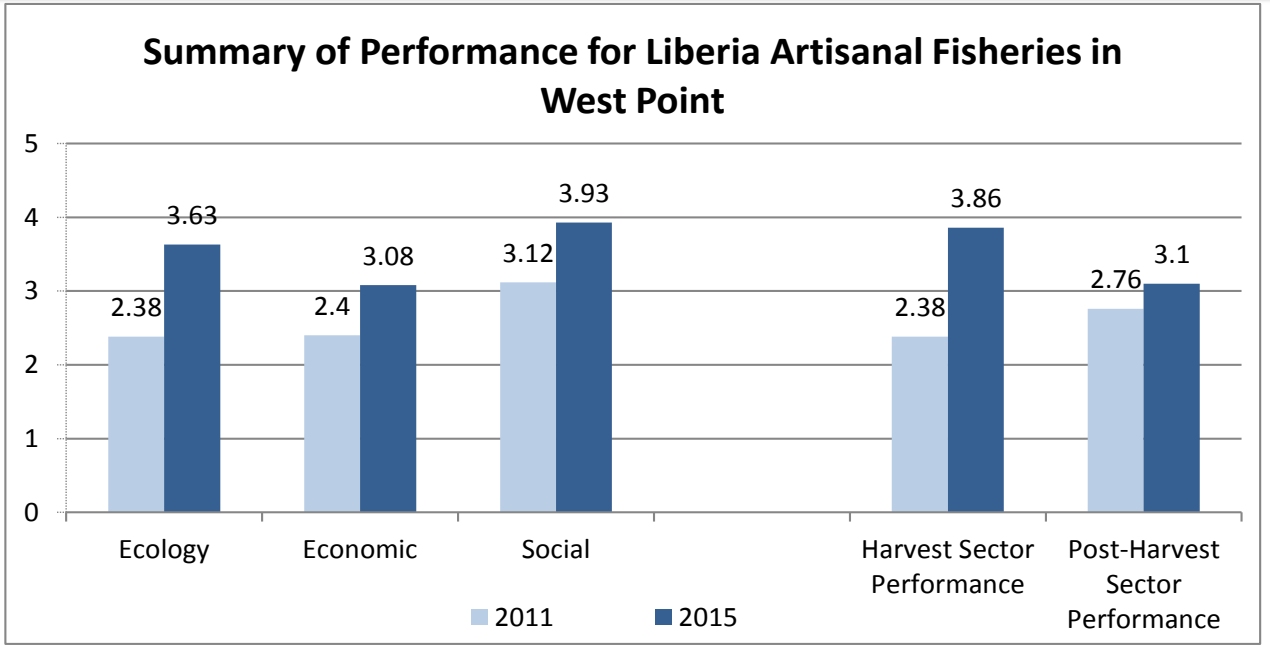
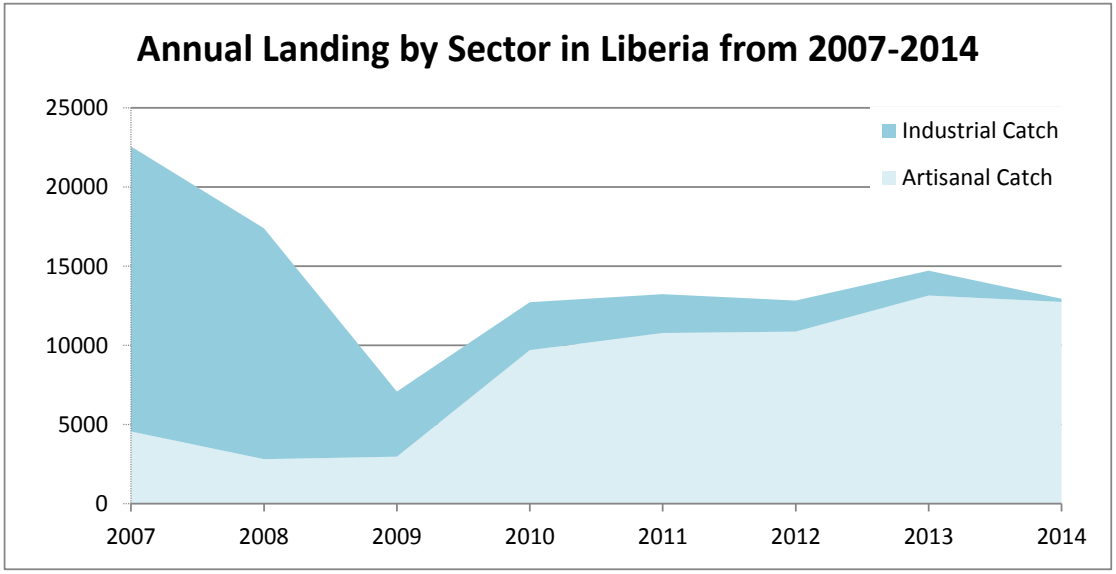
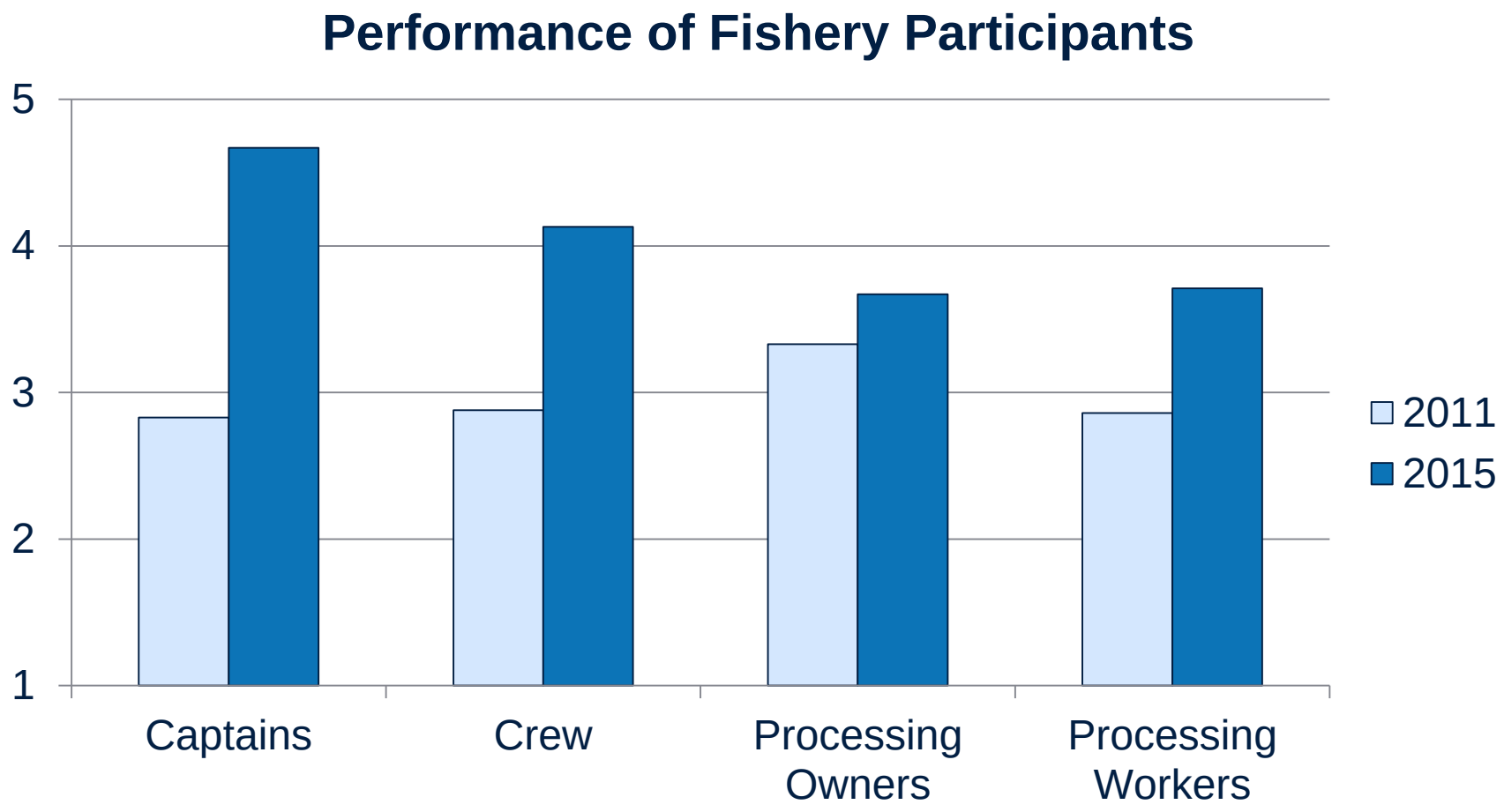


TRIPLE BOTTOM LINE





ALL FISHERY PARTICIPANTS WERE BETTER OFF



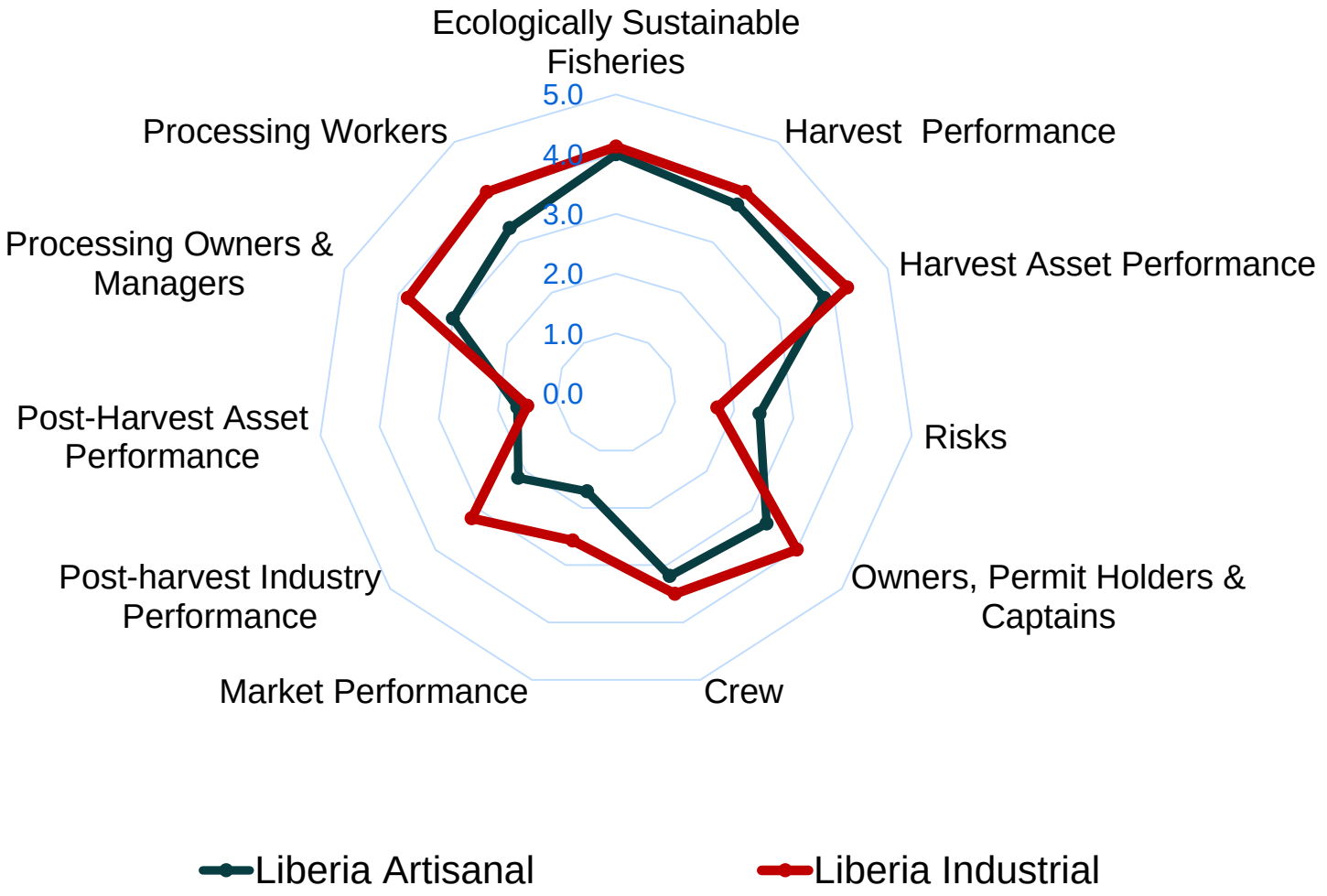
ACROSS FISHERIES

Fanti Canoes

Kru Canoes

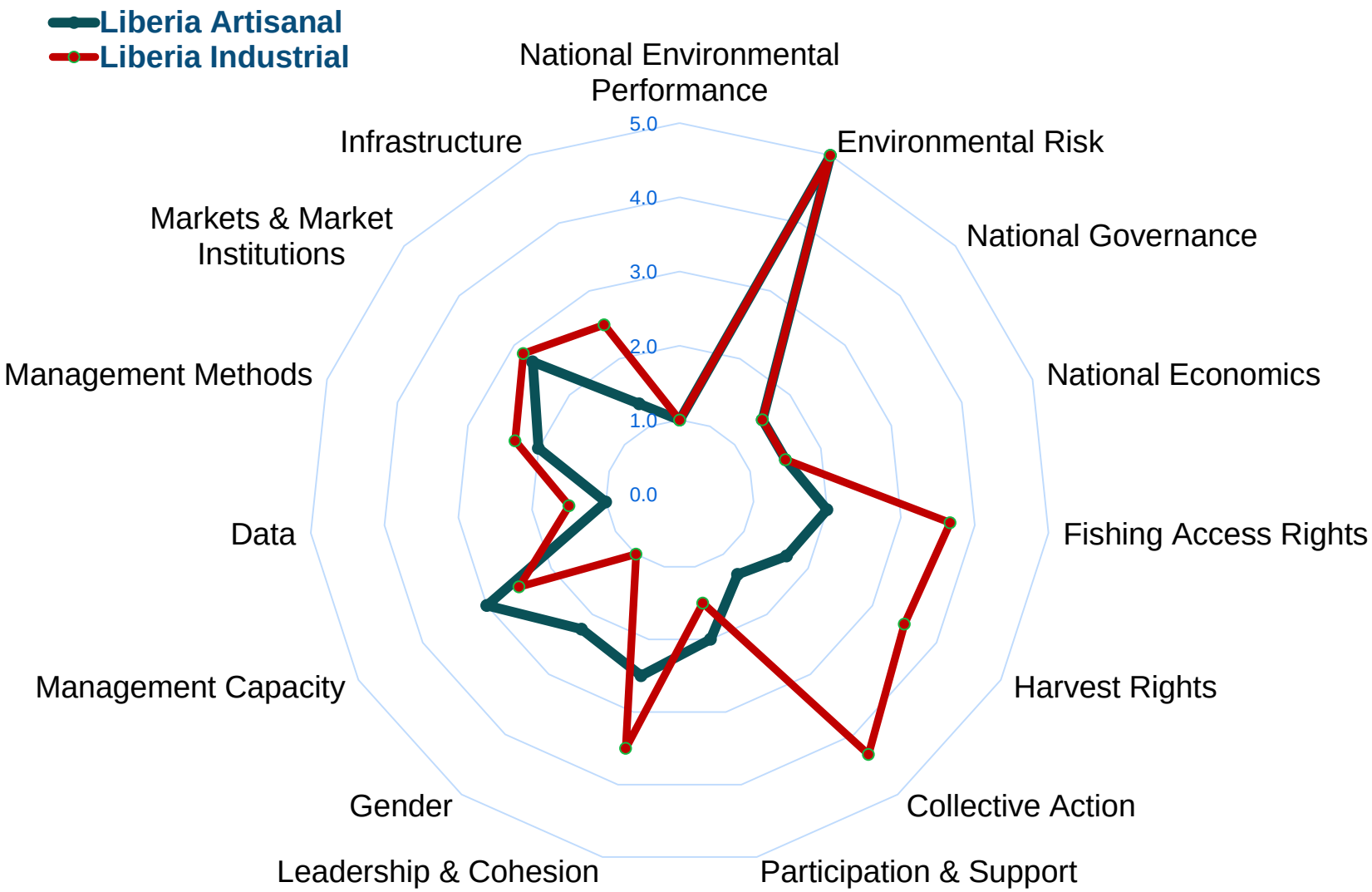
Trawlers

LIBERIA FPIs OUTPUT COMPARISON: 2017



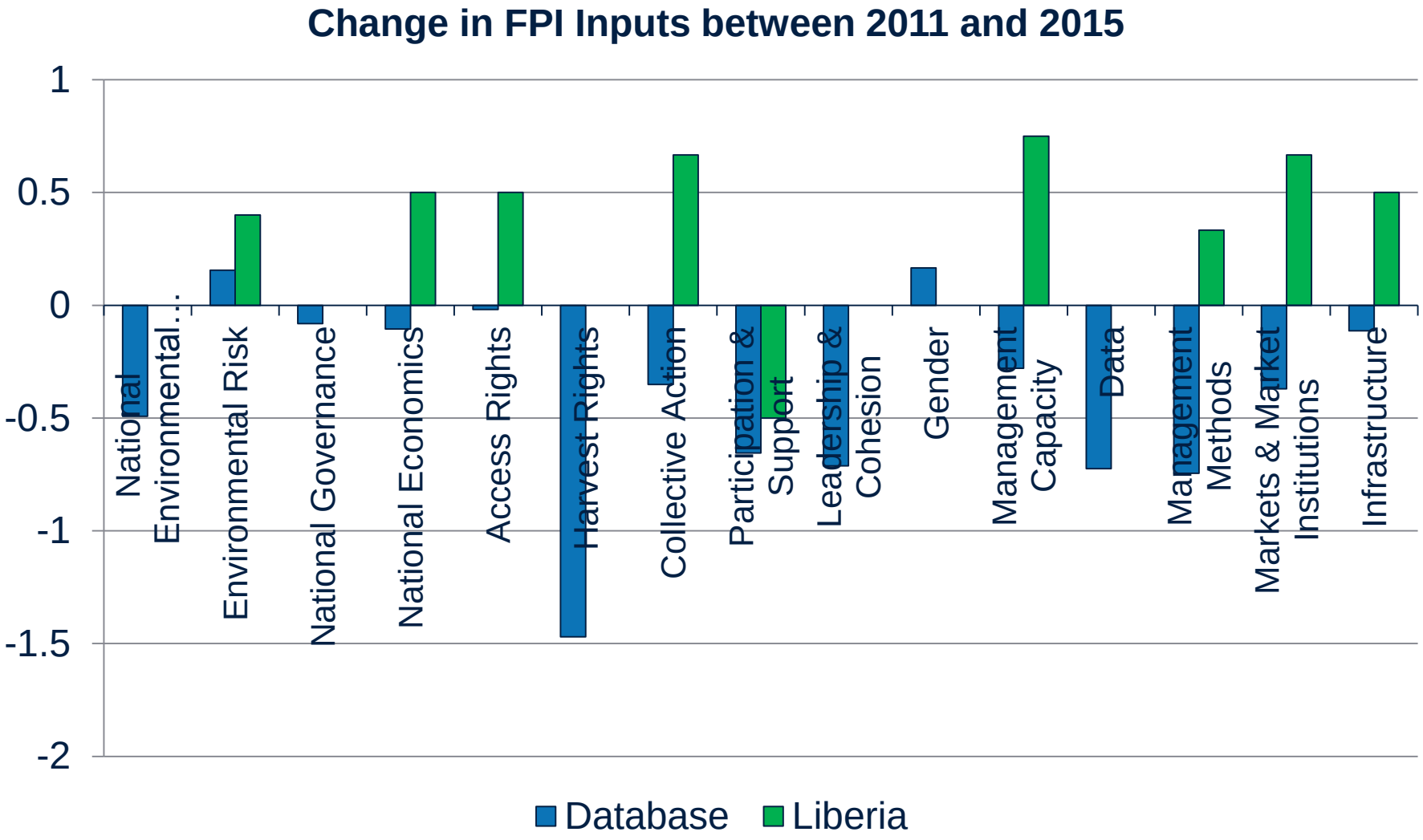
FPIs were applied by Stephen Akester, Jingjie Chu, and Steinar Matthiasson in 2018 to evaluate the fisheries in 2017.

LIBERIA FPIs INPUT COMPARISON: 2017



ACROSS FPIS DATABASE

LIBERIA RELATIVE TO THE FPI DATA BASE: INPUTS



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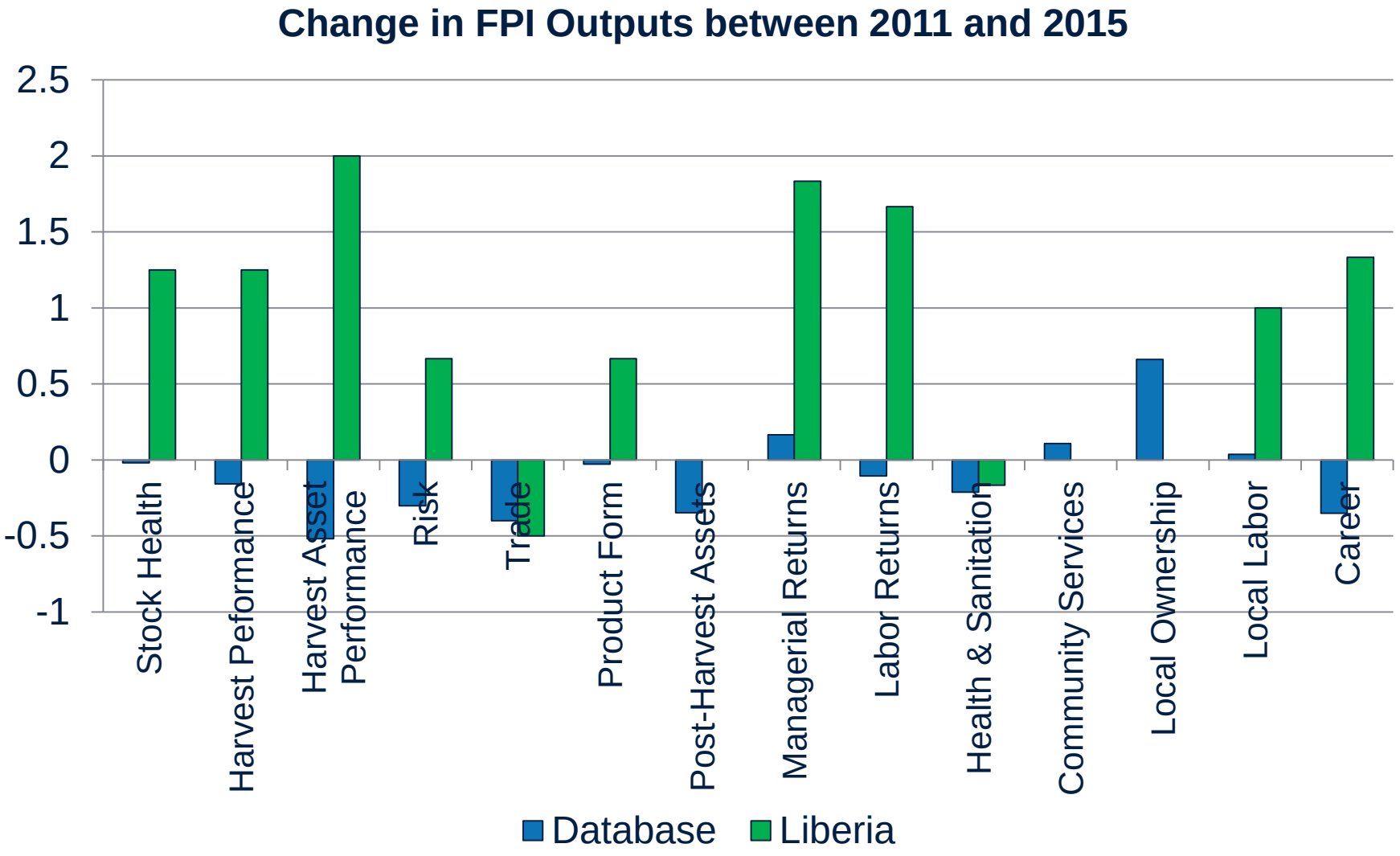

CONCLUSIONS

- **Easy to conduct FPIs at various stages**
  - The FPIs can easily be collected at the start, during and the end of any fisheries improvement project
  - Across time and across fisheries comparison are useful to provide policy recommendation
- **Consistent evaluation tool**
  - Particularly for complex projects with multiple objectives and in data poor environments
  - Complements traditional NPV measures
- **Effective communication tool**
- **Can be strengthened by implementing a control as part of the project**
  - But it can be difficult to obtain funding or control the impact as very often the project is at the national level

Thank you!

Objective of Fisheries Projects:
----To Achieve Triple Bottom Line

ECONOMIC SUSTAINABILITY

ECOLOGICAL SUSTAINABILITY

COMMUNITY SUSTAINABILITY

The Fisheries Performance Indicators (FPIs) do not provide a complete answer. However, they give a tool to measure impacts, including impacts that cannot be measured with NPV