



Fisheries, Aquaculture and Food Security in Latin America and the Caribbean

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Objective of the survey

- ▶ Assess the integration of the fisheries and aquaculture sector with food security in national policies in the Latin American and Caribbean countries.
 - ▶ Assess the importance of the F&A sector through indicators
 - ▶ Assess the integration in policies through policy review
- ▶ Participating countries: all sovereign nations of Latin America and the Caribbean (33 countries):

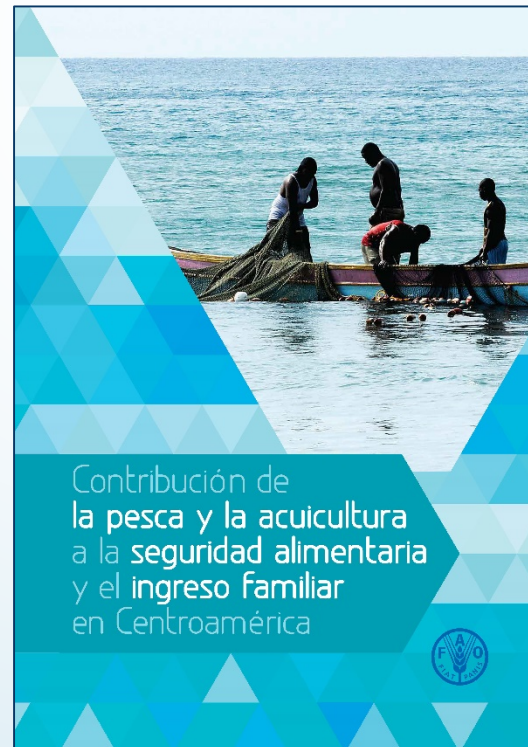
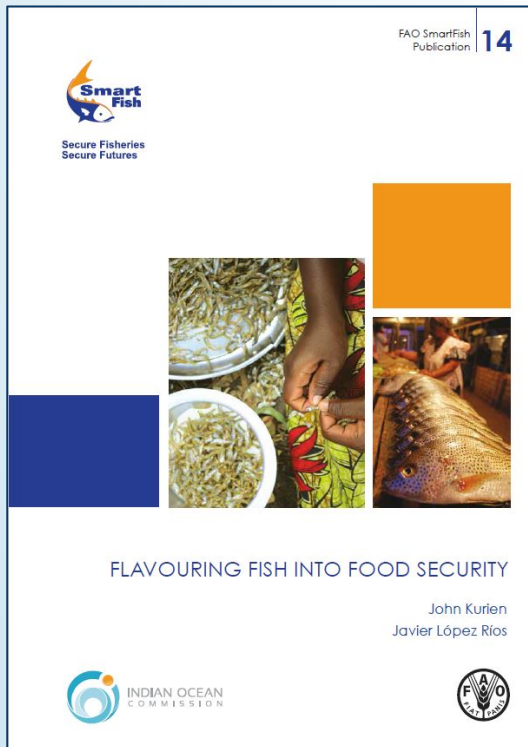
Antigua & Barbuda	Dominica	Nicaragua
Argentina	Dominican Rep.	Panama
Bahamas	Ecuador	Paraguay
Barbados	El Salvador	Peru
Belize	Grenada	St Kitts & Nevis
Bolivia	Guatemala	St Lucia
Brazil	Guyana	St Vincent & Grenadines
Chile	Haiti	Suriname
Colombia	Honduras	Trinidad & Tobago
Costa Rica	Jamaica	Uruguay
Cuba	Mexico	Venezuela



Previous studies



- ▶ Assessments on the integration of fisheries and aquaculture and food security for the ESA-IO región, and survey on the contribution of fisheries and aquaculture to food security in Central
 - ▶ *"Flavouring fish into food security"* - John Kurien; Javier López Ríos; FAO-SmartFish Programme
 - ▶ *"Contribution of Fishing and Aquaculture to Food Security and Household Income in Central America"* - Claudia Stella Beltrán; FAO Subregional Office for Central America



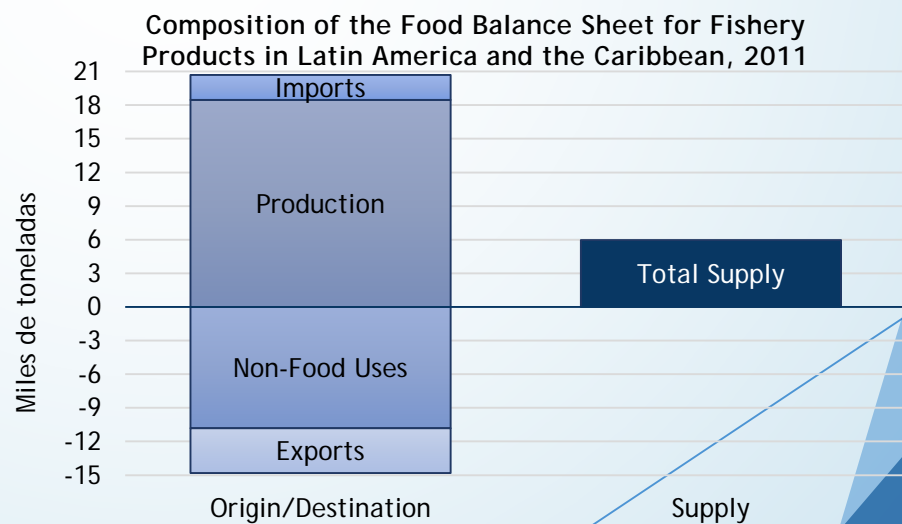
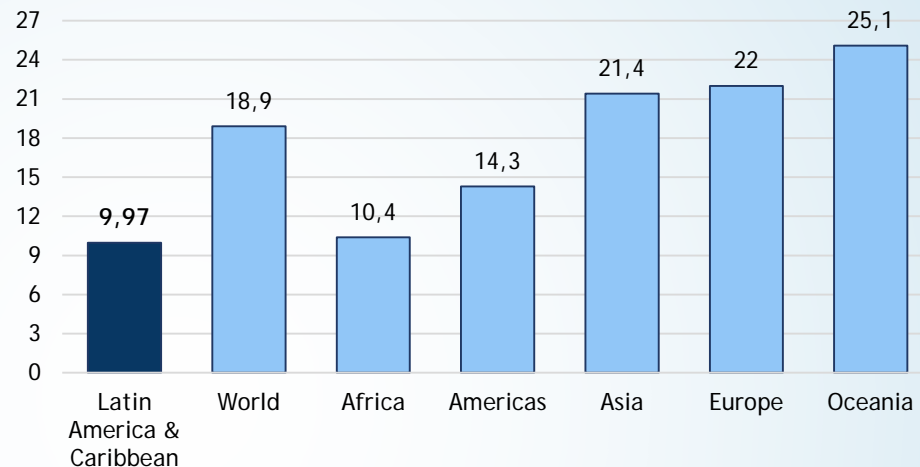
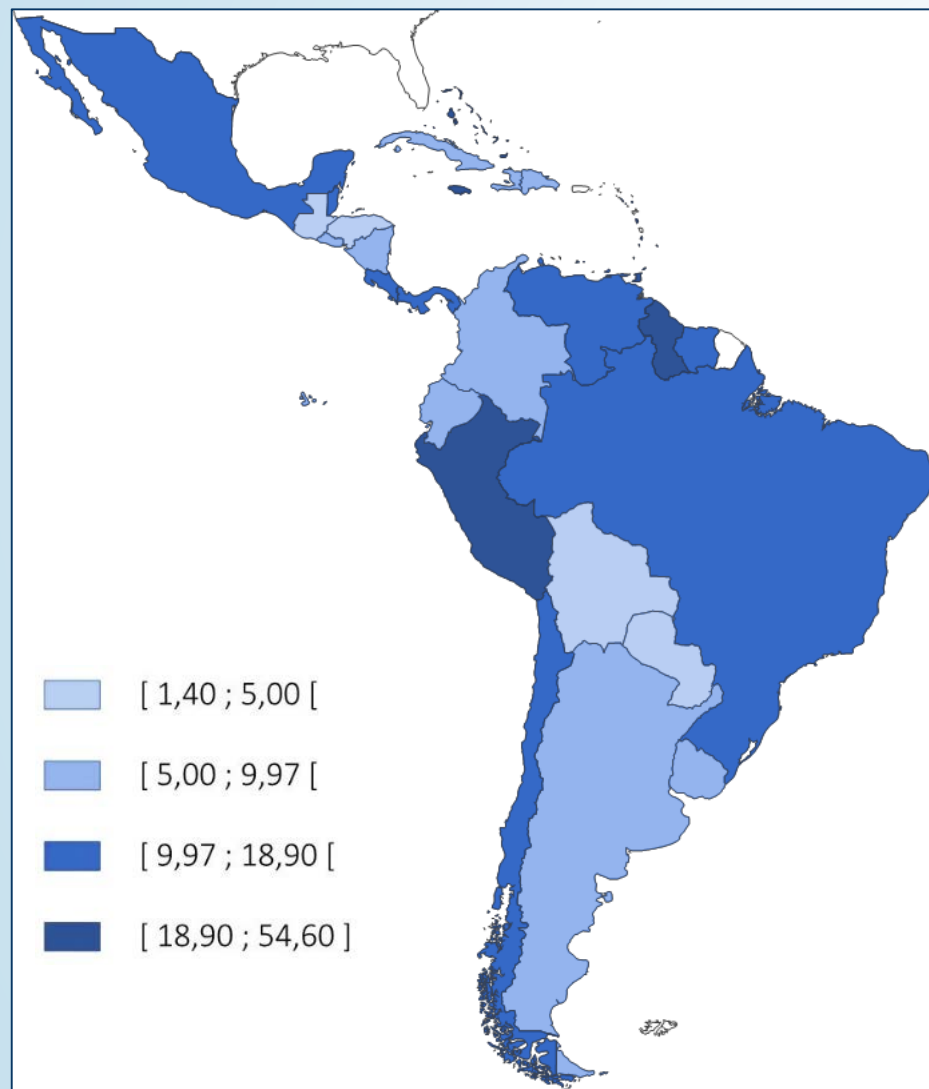


Food Security - Indicators



Latin America and the Caribbean, per capita consumption of fishery products, in kg, 2011

Per capita consumption of fishery products, by region, kg, 2011



Fuente: FAO, Hojas de Balance Alimentario, Estadísticas de pesca y acuicultura 2012.



Food Security - Indicators

FOOD SECURITY INDICATORS

DIMENSION

Average dietary energy supply adequacy
Average value of food production

Share of dietary energy supply derived from cereals, roots and tubers
Average protein supply
Average supply of protein of animal origin

AVAILABILITY

Percentage of paved roads over total roads
Road density
Rail lines density

Gross domestic product per capita (in purchasing power equivalents)

Domestic food price index

ACCESS

Prevalence of undernourishment
Share of food expenditure of the poor*
Depth of the food deficit*
Prevalence of food inadequacy*

Cereal import dependency ratio
Percent of arable land equipped for irrigation
Value of food imports over total merchandise exports

STABILITY

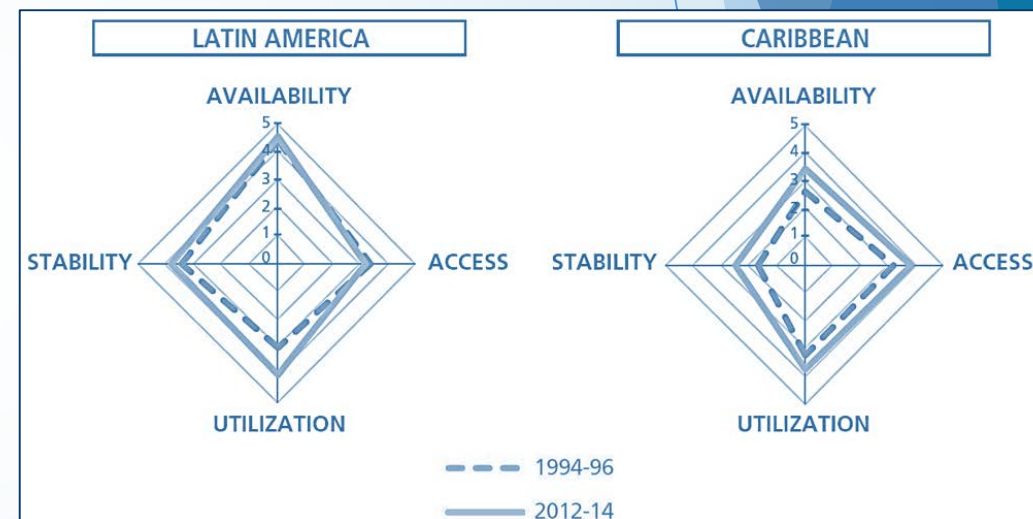
Political stability and absence of violence/terrorism
Domestic food price volatility
Per capita food production variability*
Per capita food supply variability

Access to improved water sources
Access to improved sanitation facilities

Percentage of children under 5 years of age affected by wasting
Percentage of children under 5 years of age who are stunted
Percentage of children under 5 years of age who are underweight
Percentage of adults who are underweight*
Prevalence of anaemia among pregnant women*
Prevalence of anaemia among children under 5 years of age*
Prevalence of vitamin A deficiency in the population*
Prevalence of iodine deficiency in the population*

UTILIZATION

Source: FAO, *The State of Food Insecurity in the World, 2014*



Source: FAO, *The State of Food Insecurity in the World, 2014*



Food Security - Indicators

- ▶ Possible indicators to assess the contribution of fishery products and production activities to food security:
 - ▶ Direct contribution:
 - ▶ Volume of fisheries and aquaculture production
 - ▶ Per capita consumption
 - ▶ Contribution to animal protein intake
 - ▶ Indirect contribution
 - ▶ Participation or contribution to GDP
 - ▶ Evolution of prices (also has a direct impact)
 - ▶ Share of fishery products in food expenditure
 - ▶ Value of foreign trade (exports and imports)
- ▶ Other indicators that could be included in more specific assessments:
 - ▶ Ratio of import dependency
 - ▶ Percentage of water reserves/coastal zones fit for aquaculture



Food Security - Indicators



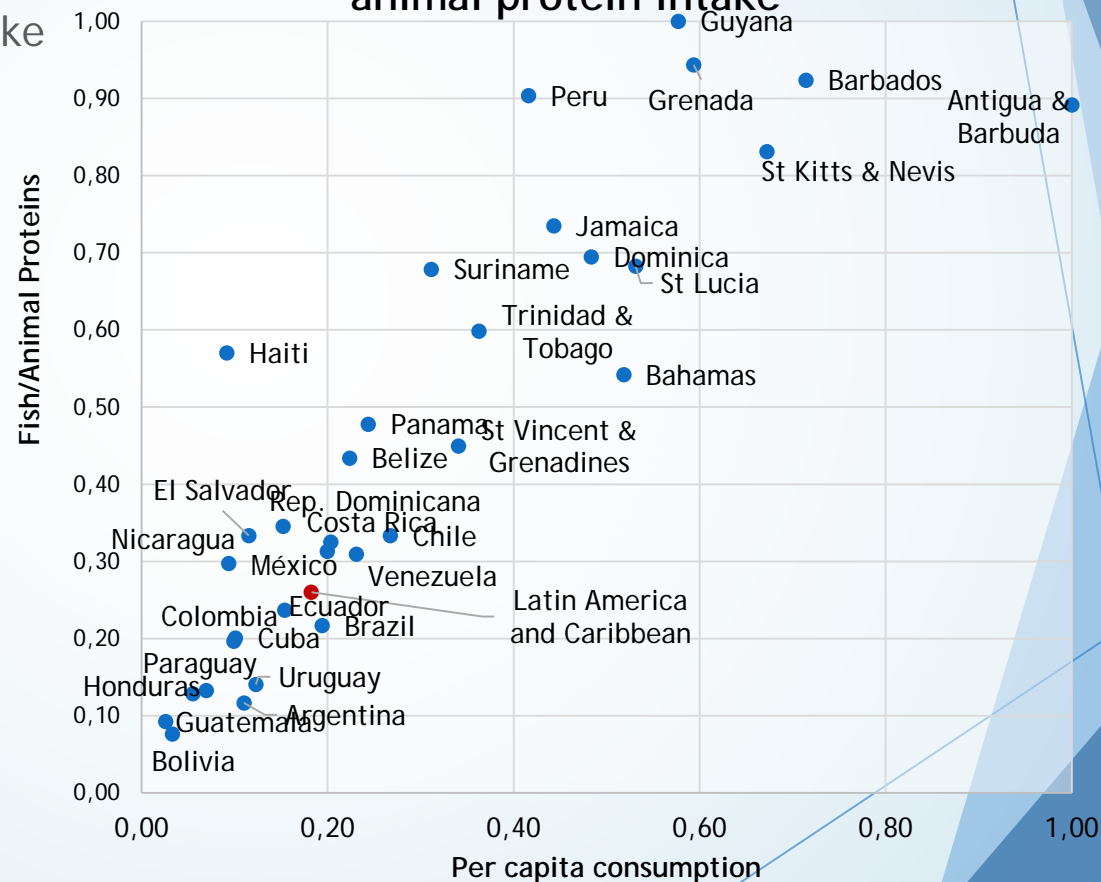
- ▶ Considering the available information from LA&C countries, indicators of direct contribution were considered:

- ▶ Per capita consumption
- ▶ Contribution to animal protein intake

Summary indicator of the importance of the fisheries sector for food security

Country	Indicator	Country	Indicator
Antigua & Barbuda	0,95	Venezuela	0,27
Barbados	0,82	Costa Rica	0,26
Guyana	0,79	Mexico	0,26
Grenada	0,77	Dominican Rep.	0,25
St Kitts & Nevis	0,75	El Salvador	0,22
Peru	0,66	Lat. Amer. & Carib.	0,22
St Lucia	0,61	Brazil	0,21
Dominica	0,59	Ecuador	0,20
Jamaica	0,59	Nicaragua	0,20
Bahamas	0,53	Cuba	0,15
Surinam	0,50	Colombia	0,15
Trinidad & Tobago	0,48	Uruguay	0,13
St Vincent & Grenadines	0,40	Argentina	0,11
Panama	0,36	Paraguay	0,10
Haiti	0,33	Honduras	0,09
Belize	0,33	Guatemala	0,06
Chile	0,30	Bolivia	0,05

Per capita consumption and contribution to animal protein intake





Policy analysis



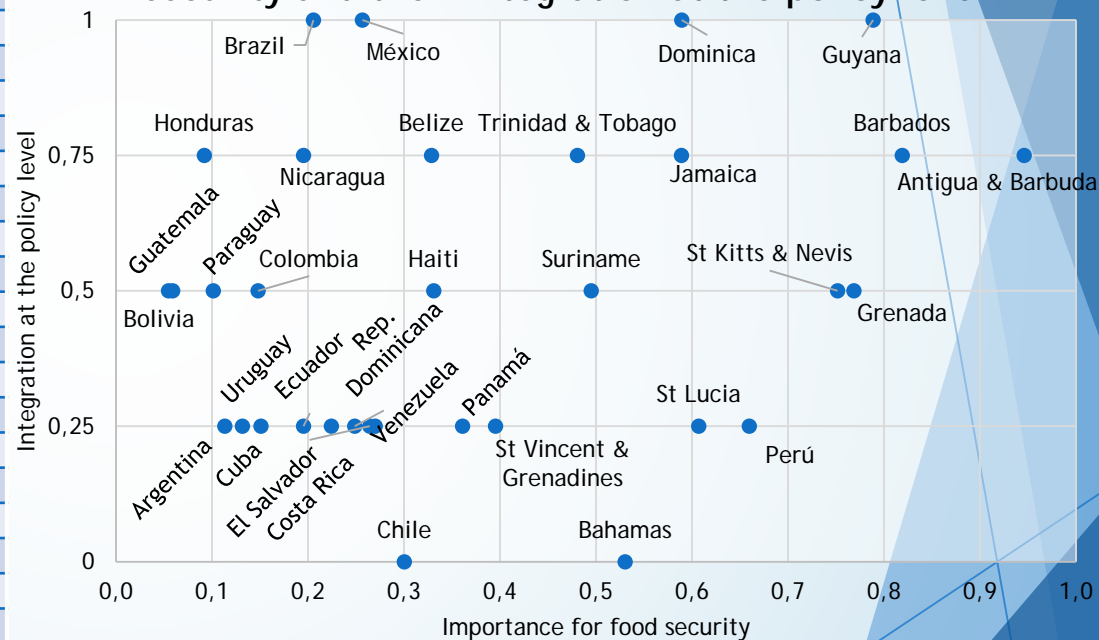
Analysis of integration of fisheries and aquaculture with food security goals in national policies that are available to public access:

- ▶ Review of 180 national policy documents related to food security and the development of the fisheries and aquaculture sector:
 - ▶ Food security policies: inclusion of fisheries and aquaculture
 - ▶ Fisheries and aquaculture development policies: inclusion of food security components
 - ▶ Level of integration at the policy level
- Scoring, setting as “ideal framework” one that included:
 - ▶ A diagnosis of the situation of the fisheries and aquaculture sector and its role in food security,
 - ▶ An approach to current problems and issues,
 - ▶ Proposal of lines of action to improve the contribution of the fisheries and aquaculture to food security, and
 - ▶ Proposal of concrete actions to be implemented

Joint analysis of importance and integration

Country	Importance indicator	Scoring of integration	Importance + integration
Guyana	0,79	1	0,89
Antigua & Barbuda	0,95	0,75	0,85
Dominica	0,59	1	0,79
Barbados	0,82	0,75	0,78
Jamaica	0,59	0,75	0,67
Grenada	0,77	0,5	0,63
México	0,26	1	0,63
St Kitts & Nevis	0,75	0,5	0,63
Trinidad & Tobago	0,48	0,75	0,62
Brasil	0,21	1	0,60
Belice	0,33	0,75	0,54
Surinam	0,50	0,5	0,50
Nicaragua	0,20	0,75	0,47
Perú	0,66	0,25	0,45
St Lucia	0,61	0,25	0,43
Honduras	0,09	0,75	0,42
Haití	0,33	0,5	0,42
Colombia	0,15	0,5	0,32
St Vincent & Grenadines	0,40	0,25	0,32
Panamá	0,36	0,25	0,31
Paraguay	0,10	0,5	0,30
Guatemala	0,06	0,5	0,28
Bolivia	0,05	0,5	0,28
Bahamas	0,53	0	0,27
Venezuela	0,27	0,25	0,26
Costa Rica	0,26	0,25	0,26
Rep. Dominicana	0,25	0,25	0,25
El Salvador	0,22	0,25	0,24
Ecuador	0,20	0,25	0,22
Cuba	0,15	0,25	0,20
Uruguay	0,13	0,25	0,19
Argentina	0,11	0,25	0,18
Chile	0,30	0	0,15

Importance of fisheries and aquaculture for food security and their integration at the policy level



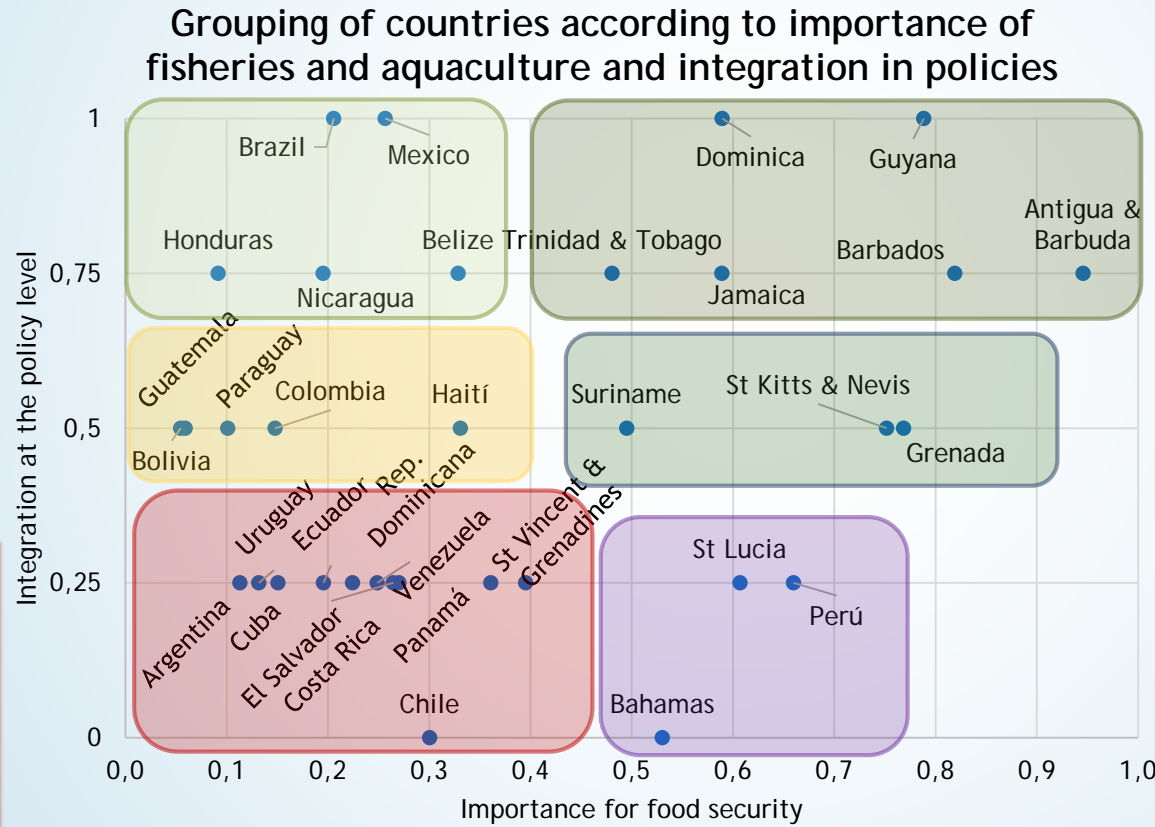


Joint analysis of importance and integration

Low importance and high integration: “replicate” policy guidelines and components, impact or result assessments (likely time gap with indicators), consumption promotion, strengthening of domestic markets

Low importance and medium integration: some advances towards integration, usually in goals and diagnosis.

Low importance and integration: Very diverse group. It is required to promote consumption and to deepen the knowledge on consumers and markets. It is necessary to widen the spectrum of policies to promote consumption.



High importance and integration: “replicate” policy guidelines and components for inclusion in future policies

High importance and medium integration: some advances in the integration at policy level.

High importance and low integration: Need to deepen diagnosis and policy development.



Policy analysis – findings and conclusions

- ▶ Inclusion of fisheries and aquaculture in a wide concept of agriculture leads to the loss of specificity.
 - ▶ It is needed that specific policies for the sector are designed.
 - ▶ Consider the differences between the industrial and the artisanal/small-scale sector, and the particular requirements of each.
- ▶ Need for investment in infrastructure:
 - ▶ Transport and logistics infrastructure improves access, expands markets, reduces transportation time and allows to increase the supply of products, contributing to income generation and loss reduction.
 - ▶ Infrastructure for processing, conservation and marketing, improving quality (therefore prices) allowing a better utilization through risk reduction.



Policy analysis – findings and conclusions

► Investment in training:

- Good practices allows to make better use of infrastructure, improves quality and reduces losses.
- Capacity building among consumers: provide as much information as possible, but “teach” how to read it. Allows to develop market segments and product differentiation.

“In order to make healthy food choices, the population needs to be empowered with knowledge, skills and provided with the necessary supportive environment.”

The food and nutrition policy and plan of action for Grenada, 2007.

- Importance of generating the potential to replicate knowledge to achieve long-term sustainability of initiatives.
- Improve the knowledge of markets and consumers
 - Allows to seize opportunities in domestic and regional markets, develop productive complementation, reach scale economies, develop foreign trade and reduce dependency from the public sector.
 - Availability of information and interpretation tools increase transparency and allows to identify opportunities and need for regulation.
 - Develop a measure to adjust consumption for countries with very strong tourism.



Policy analysis – findings and conclusions

- ▶ Promotion campaigns
 - ▶ Experiences in the region have positive evaluation. Usually low consumption is linked to lack of habit.
 - ▶ National and local policies are required, in observance of specificities in each region inside the countries.
 - ▶ Lessons learnt and successful experiences in the region. Coordinate initiatives in common geographical areas.
- ▶ Higher consumption implies higher demand
 - ▶ Opportunity for the development of production, in particular aquaculture
 - ▶ Challenge for the foreign trade sector.
 - ▶ Higher consumption can be associated to demand diversification and lead to higher imports.
 - ▶ Expansion del consumption can be an opportunity for the region as a whole (50% of imports in LA&C are from the region itself).
 - ▶ Challenge for regulation and surveillance, in order to not increase pressure on resources.
- ▶ Improve the statistical data to have a better approach and include other indicators that allow a better assessment of the impact of F&A in food security.



Policy analysis – findings and conclusions

- ▶ To improve consumption, and develop the productive sector and the associated links of the value chain, good levels of information are needed, in order to allow:
 - ▶ A detailed diagnosis as a starting point
 - ▶ Design of specific policies
 - ▶ Improve resource allocation
 - ▶ Identify challenges
 - ▶ Identify needs of public intervention (in particular as supplier of public goods and regulator of common resources)
 - ▶ Develop follow-up indicators
 - ▶ Assess impact
- ▶ Some instruments:
 - ▶ Value-chain and market studies
 - ▶ Expenditure and consumption habits surveys
 - ▶ Surveys and census to producers
 - ▶ Incorporation of ICTs
 - ▶ Institutional strengthening (in a wide conception)

“At a national level, governance of food security refers to the formal and informal rules, as well as processes through which interests are articulated and a consensus on a national food and nutritional security (FNS) policy is reached. It is required and adequate institutions for the coordination of the multiple dimensions of FNS and their operation.”

Mexico's Food and Nutritional Security Outlook, 2012

Muchas gracias

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