

Appendix 1 Evaluation Framework for Sustainable Fisheries, Version 2.1, Example Indicators and Attributes

DOMAIN: ECOLOGICAL

DIMENSION	ELEMENT	INDICATOR
Productivity	Ecological Productivity: Fluctuations of Species and Population Abundance	<ul style="list-style-type: none"> • [Recruitment Dynamics]⁶ description for [Resource Demographic Category]² within a [Resource Geographic Region]³ • [Quantification]¹² of Fishing Mortality. • [Quantification]¹² of Escapement and determine relationship to [Recruitment Dynamics]⁶.
	Geographic Range: Fluctuations of species and population geographic range.	<ul style="list-style-type: none"> • [Index of Abundance]⁴ in a [Resource Geographic Region]³ during a [Time Period]⁵ • [Status]¹ of [Resource Demographic Category]² within a [Resource Geographic Region]³
	Phenotypic & Genetic Diversity: Fluctuation of species and population phenotypic and genetic diversity	<ul style="list-style-type: none"> • [Genetic Diversity]⁷ and [Phenotypic Diversity]⁸ among a [Resource Demographic Category]² within a [Resource Geographic Region]³ • Change in [Genetic Diversity]⁷ and [Phenotypic Diversity]⁸ among a [Resource Demographic Category]² over [Time Period]⁵
Habitat	Substrate Quality: Changes to benthic geology and geomorphology	<ul style="list-style-type: none"> • Proportion of habitat types impacted, and the degree of impact, by [Anthropogenic Activity]¹⁰ • Proportion of sensitive [Benthic Species]¹¹ subject to [Anthropogenic Activity]¹⁰ • Proportion of fishing grounds surveyed and mapped • Habitat Maps considering presence/absence and abundance of [Benthic Species]¹¹ • [Quantification]¹² of [Gear]¹³ loss • [Quantification]¹² of [Gear]¹³ modifications applied in a [Fishery Category]¹⁴ designed to reduce impact to substrate quality • Accounting of [Gear]¹³
	Water Quality: Changes to water quality.	<ul style="list-style-type: none"> • [Quantification]¹² of [Pollution]¹⁵ in a [Resource Geographic Region]³ • [Quantification]¹² of Anoxic zones in a [Resource Geographic Region]³ • [Eutrophication evidence]¹⁹ in a [Resource Geographic Region]³ • Risk assessments for major catastrophic [Pollution]¹⁵ events • [Quantification]¹² of [Pollution]¹⁵ within [Fishery Category]¹⁴ over [Time Period]⁵

Biodiversity	Food-web Persistence: Persistence of structure and natural resilience of the ecosystem	<ul style="list-style-type: none"> • [Food-web Interactions]¹⁶, including [Anthropogenic Activity]¹⁰, that enhance/maintain [Food-web Stability]¹⁷ • [Quantification]¹² of incidental/bycatch mortality by [Fishery Category]¹⁴ • [Quantification]¹² of [Gear]¹³ modifications applied in a [Fishery Category]¹⁴ designed to reduce incidental mortality • [Biodiversity Indices]⁹ in a [Resource Geographic Region]³ • Change in [Biodiversity Indices]⁹ over [Time Period]⁵
	Non-Native Species: Extent and impact of non-native species	<ul style="list-style-type: none"> • Degree of impact of introduced species on [Food-web Stability]¹⁷ • Probability of introduction of new species to ecosystem • [Quantification]¹² of introduced species in ecosystem • Probability of ability to extirpate introduced species, proportional to the degree of impact to [Food-web Stability]¹⁷ • [Quantification]¹² of extirpation of introduced species, proportional to the degree of impact to [Food-web Stability]¹⁷ • [Quantification]¹² of aquaculture escapes. • [Quantification]¹² of introduction and proliferation of disease/pathogens.
	Regime Shifts: Risks to ecosystem stability due to changes in climate	<ul style="list-style-type: none"> • [Regime Shift Indicators]¹⁸ • [Quantification]¹² of Green House Gas emissions • Fuel efficiency of fishing operations in a [Fishery Category]¹⁴ • Risk of Regime Shift or fisheries collapse

DOMAIN: COMMUNITY

Health and well-being	Basic needs: Fulfillment of basic human needs	<ul style="list-style-type: none"> • [Social Factor]²⁰ among [Human Population]²¹ in [Human Geographic Region]²² • Proportion of [Human Population]²¹ in [Human Geographic Region]²² below the poverty line • Income disparity in [Human Geographic Region]²² (e.g., Gini coefficient, ratio of highest wage to average wage) • Availability of affordable [Services]²³ to [Human Population]²¹ in [Human Geographic Region]²² • Ratio of [Services]²³ cost to gross adjusted disposable income of the household • Ranking of the quality of [Education]²⁴ at [Human Geographic Region]²² level
------------------------------	--	---

	<p>Food security: Contribution to food security</p>	<ul style="list-style-type: none"> • [Quantification]¹² of [Seafood]²⁵ caught [Adjacent]²⁶ to [Human Geographic Region]²² by [Product Category]²⁷
	<p>Food safety: Quality and safety of food along the supply chain</p>	<ul style="list-style-type: none"> • [Quantification]¹² of fish and seafood establishments regulated for food safety • [Quantification]¹² of fish and seafood regulated establishments inspected within the past 5 years • [Quantification]¹² of inspected fish and seafood regulated establishments in compliance with applicable regulations • [Quantification]¹² of reported cases of food-borne illness from [Seafood]²⁵ • Landed value of [Seafood]²⁵ • Price per lb of [Seafood]²⁵ • [Quantification]¹² of [Seafood]²⁵ by [Processing Type]²⁸
	<p>Occupational safety: Workplace health and safety conditions</p>	<ul style="list-style-type: none"> • [Quantification]¹² of deaths at-sea • [Quantification]¹² of injuries in [Fishery Category]¹⁴ per [Time Period]⁵ • Ranking of job safety • Proportion of fisheries work force subject to Canadian labour laws • Proportion of fisheries workforce that meets [Certification Standards]²⁹
	<p>Informed citizenry: Public understanding and recognition of fisheries</p>	<ul style="list-style-type: none"> • Rating of importance of fisheries in opinion polls in [Human Geographic Region]²² among [Human Population]²¹ • Stated preference valuation for the existence of fisheries dependent communities in [Human Geographic Region]²² • Willingness to pay for [Seafood]²⁵ caught [Adjacent]²⁶ to [Human Geographic Region]²² • [Quantification]¹² of [Data]³⁰ readily accessible to the public • Number of visits to [Fishery Related Website]³¹ • The [Organization Condition]³² of community events highlighting value of seafood and fisheries
	<p>Vital civic culture: Participation and engagement in public life</p>	<ul style="list-style-type: none"> • The [Organization Condition]³² of [Organization]³³ in a [Human Geographic Region]²² • Voter turnout in a [Human Geographic Region]²² for [Jurisdiction]³⁴ election among [Human Population]²¹
	<p>Well-being: Quality of life</p>	<ul style="list-style-type: none"> • [Qualitative]³⁵ evidence of subjective perception of well-being, applied at [Human Geographic Region]²² • [Well-being Index]³⁶ applied at [Human Geographic Region]²²

Equity and Fairness	Allocation: Fairness in the allocation of resource benefits	<ul style="list-style-type: none"> • [Quantification]¹² of reallocations of [Resource Demographic Category]² across [Stakeholder Group]³⁸ rights without [Compensation]³⁹ • Proportion of realized [Compensation]³⁹ relative to fair market value of reallocated [Resource Demographic Category]² across [Stakeholder Group]³⁸ rights • Proportion of realized allocation relative to potential allowed allocation • Loss of income from reallocation of access rights by [Economic Unit]³⁷ in [Human Geographic Region]²² • [Quantification]¹² of [Seafood]²⁵ harvest across [Fishery Category]¹⁴ being contested by one or more [Stakeholder Group]³⁸
	Stability: Stability of access to resource benefits	<ul style="list-style-type: none"> • Distribution of catch by [Sector]⁴⁰, [Human Geographic Region]²², [Economic Unit]³⁷ • Distribution of [Access]⁴¹ by [Human Geographic Region]²², [Human Population]²¹, [Sector]⁴⁰, [Operator Type]⁴² • [Quantification]¹² of major changes to [Access]⁴¹ conditions over [Time Period]⁵ • [Quantification]¹² of [Fisheries Related Private Infrastructure]⁴³ by [Fishery Category]¹⁴ and [Human Geographic Region]²²
	Costs & Benefits: Equitable distribution of benefits and costs	<ul style="list-style-type: none"> • Value of fisheries related [Fisheries Related Public Infrastructure]⁴⁴ in [Human Geographic Region]²² • Value of fisheries related [Fisheries Related Private Infrastructure]⁴³ in [Human Geographic Region]²² • [Benefit Axis]⁴⁵ by [Socio-economic distribution axis]⁴⁶ • [Cost Axis]⁴⁷ by [Socio-economic distribution axis]⁴⁶ • Distribution of [Value Type]⁴⁸ by [Value Chain Element]⁴⁹ • Distribution of [Value Type]⁴⁸ by [Operator Type]⁴²
	Risks & Rewards: Equitable distribution of risks and rewards	<ul style="list-style-type: none"> • [Risk Axis]⁵⁰ by [Socio-economic Distribution Axis]⁴⁶
	Livelihoods: Sustainability of livelihoods	<ul style="list-style-type: none"> • [Livelihood Index]⁵¹ applied at [Human Geographic Region]²² • Unemployment rate in fishery-dependent [Human Geographic Region]²²
Economic and financial	Human capital: Development and maintenance of human capital	<ul style="list-style-type: none"> • [Human Demographic Axis]⁵² by [Occupational Axis]⁵³ • [Quantification]¹² of [Time Period]⁵ in the industry by [Occupational Axis]⁵³ • [Quantification]¹² of generations of fishing history of current participants in the fishery

		<ul style="list-style-type: none"> • [Quantification]¹² of fishermen meeting [Certification Standards]²⁹
	<p>Efficiency: Maximization of harvest value relative to waste</p>	<ul style="list-style-type: none"> • Realized catch relative to potential target harvest • [Quantification]¹² of [Resource Demographic Category]² discard waste • Market price relative to private marginal cost of production • Cost of output for [Economic Unit]³⁷ by [Fishery Category]¹⁴ relative to the lowest possible average total cost • Output obtained from a given quantity of inputs relative to the maximum output obtainable from that given quantity of inputs • [Productivity]⁵⁴ of [Economic Unit]³⁷ by [Fishery Category]¹⁴ • [Efficiency]⁵⁵ of [Economic Unit]³⁷ by [Fishery Category]¹⁴

DOMAIN: INSTITIONAL

Structure	<p>Rules: Legal, regulatory and policy framework is appropriate</p>	<ul style="list-style-type: none"> • Proportion of [Anthropogenic Activity]¹⁰ covered by [Institutional Arrangement]⁶⁵ and subject to [Legislation/Regulation]⁶¹ and/or [Management Plan]⁶⁶ • [Qualitative]³⁵ evidence of support for the [Institutional Arrangement]⁶⁵ and/or [Legislation/Regulation]⁶¹ and/or [Management Plan]⁶⁶ amongst [Stakeholder Group]³⁸ • [Qualitative]³⁵ evidence of consistency between the [Institutional Arrangement]⁶⁵ and [Legislation/Regulation]⁶¹ and [Human Population]²¹ norms and values • [Qualitative]³⁵ evidence of consistency in [Institutional Arrangement]⁶⁵ between [Stakeholder Group]³⁸
	<p>Resources: Funding and other support is adequate and reliable</p>	<ul style="list-style-type: none"> • Level and duration of [Support]⁶⁷ for [General Management Activity]⁶⁸ and/or [Fisheries Management Activity]⁶⁹ amongst [Stakeholder Group]³⁸ and/or [Human population]²¹ at [Human Geographic Region]²² • Types of [Conflict Resolution Approaches]⁷⁰ available to deal with disputes
	<p>Agreements: Agreements between participants are comprehensive and enforceable</p>	<ul style="list-style-type: none"> • [Quantification]¹² of agreements involving [Stakeholder Group]³⁸ and/or [Human Population]²¹ containing [Agreement Element]⁷¹ • [Quantification]¹² of agreements involving [Stakeholder Group]³⁸ and/or [Human Population]²¹ supported by

		[Institutional Arrangement] ⁶⁵ and/or [Legislation/Regulation] ⁶¹
Process	Collaborative: Collaborative relationships within and between governments and other parties	<ul style="list-style-type: none"> • [Qualitative]³⁵ evidence of [Stakeholder Group]³⁸ and [Human Population]²¹ perception of collaboration by [Collaboration Type]⁷² • Degree to which [Collaboration Criteria]⁷³ exist • [Quantification]¹² of [Collaboration Criteria]⁷³ • [Quantification]¹² of [Stakeholder Group]³⁸ participation in [General Management Activity]⁶⁸ and/or [Fisheries Management Activity]⁶⁹
	Co-operation: Best efforts are made to address conflicts between stakeholders	<ul style="list-style-type: none"> • [Qualitative]³⁵ evidence of [Stakeholder Group]³⁸ and [Human Population]²¹ perception of co-operation • Degree to which [Co-operation Criteria]⁷⁴ exist • [Quantification]¹² of [Co-operation Criteria]⁷⁴
	Inclusive: Inclusive processes that support participation	<ul style="list-style-type: none"> • [Qualitative]³⁵ evidence of [Stakeholder Group]³⁸ and [Human Population]²¹ perception of inclusivity • Degree to which [Inclusivity Criteria]⁷⁵ exist • [Quantification]¹² of [Inclusivity Criteria]⁷⁵ • [Quantification]¹² of [Stakeholder Group]³⁸ participation in [General Management Activity]⁶⁸ and/or [Fisheries Management Activity]⁶⁹
	Informed: Stakeholders have access to best available information and analysis	<ul style="list-style-type: none"> • [Qualitative]³⁵ evidence of [Stakeholder Group]³⁸ and [Human Population]²¹ perception of how well-informed participants are • Degree to which [Information Standards]⁷⁶ exist • [Quantification]¹² of [Information Standards]⁷⁶
	Predictable: Predictable and consistent decision-making procedures that are not changed without adequate consultation or justification	<ul style="list-style-type: none"> • [Qualitative]³⁵ evidence of [Stakeholder Group]³⁸ and [Human Population]²¹ perception of [Predictability Criteria]⁷⁷ • Documentation of [Access]⁴¹ • Documentation and [Quantification]¹² of changes to [Access]⁴¹ • Existence of [Management Plan]⁶⁶ • Documentation and [Quantification]¹² of changes to [Management Plan]⁶⁶
	Flexible: Flexible and responsive processes that can be adapted to changing circumstances	<ul style="list-style-type: none"> • [Qualitative]³⁵ evidence of [Stakeholder Group]³⁸ and [Human Population]²¹ perception of flexibility • Degree to which there is [Flexibility Criteria]⁷⁸
	Transparent: Open and transparent policies, procedures, decisions,	<ul style="list-style-type: none"> • [Qualitative]³⁵ evidence of [Stakeholder Group]³⁸ and [Human Population]²¹ perception of transparency • Degree to which there is [Transparency Criteria]⁷⁹ • [Quantification]¹² of [Transparency Criteria]⁷⁹

	and supporting documentation	
Outcomes	Compliance: Regular evaluation of and reporting on compliance with legal, regulatory and policy framework	<ul style="list-style-type: none"> • [Qualitative]³⁵ evidence of [Stakeholder Group]³⁸ and [Human Population]²¹ perception of compliance • Degree to which there is [Compliance Criteria]⁸⁰ • [Quantification]¹² of [Compliance Criteria]⁸⁰
	Power dynamics: Explicit consideration of power dynamics in decision-making	<ul style="list-style-type: none"> • [Qualitative]³⁵ evidence of [Stakeholder Group]³⁸ and [Human Population]²¹ perception of power dynamics • Degree to which [Power Dynamics Criteria]⁸¹ are identified and addressed
	Appropriateness: Explicit consideration of constitutional, collective, and operational levels in decision-making	<ul style="list-style-type: none"> • [Qualitative]³⁵ evidence of [Stakeholder Group]³⁸ and [Human Population]²¹ perception of appropriateness • Presence/absence of role for [Stakeholder Group]³⁸ in the development, establishment and enforcement of rules at the [Rule Level]⁸² • Degree to which [Accredited Organization Criteria]⁸³ was consulted in the development, establishment and enforcement of rules at the [Rule Level]⁸² • Degree to which [Stakeholder Group]³⁸ role in the development, establishment and enforcement of rules at the [Rule Level]⁸² is commensurate with impact of rule on the [Stakeholder Group]³⁸ • Degree to which there is [Flexibility Criteria]⁷⁸
	Trade-offs: Explicit consideration of trade-offs in decision-making	<ul style="list-style-type: none"> • [Qualitative]³⁵ evidence of [Stakeholder Group]³⁸ and [Human Population]²¹ perception of trade-off • Degree to which [Trade-off Criteria]⁸⁴ are identified and implemented • [Quantification]¹² of [Trade-off Criteria]⁸⁴
	Assessment: Regular evaluation of and reporting on outcomes in the ecological, community, and institutional dimensions of the fishery	<ul style="list-style-type: none"> • [Qualitative]³⁵ evidence of [Stakeholder Group]³⁸ and [Human Population]²¹ perception of assessment • [Quantification]¹² of [Fishery Category]¹⁴ subject to assessment • Degree to which [Assessment Method]⁸⁵ exists • [Quantification]¹² of recommendations from evaluation addressed in subsequent management activities

ATTRIBUTES

1. **Status:** Bt/Btarget; Bt/Blim; Bt/B0; Probability of Extinction; COSEWIC/SARA designated unit status
2. **Resource Demographic Category:** species; population; stock; size; sex; age class

3. **Resource Geographic Region:** province; country; Exclusive Economic Zone; region; management area; marine area; river system; lake; watershed
4. **Index of Abundance:** CPUE; WPUE; survey estimates; stock assessment biomass/abundance estimates
5. **Time Period:** day; week, month; season; year; decade; century
6. **Recruitment Dynamics:** compensation or depensation; changes in average recruitment
7. **Genetic Diversity:** genetic variation using microsatellites and mitochondrial DNA; genetic mixing; genetic sex ratio
8. **Phenotypic Diversity:** phenotypic variation in measurable characteristics; maturation-at-age; size-at-age; phenotypic sex ratio
9. **Biodiversity Indices:** species richness; Shannon's diversity; species assemblage structure
10. **Anthropogenic Activity:** harvesting; shipping; tourism and recreation; oil and gas extraction/processing; mining; forestry; aquaculture; construction; residential development
11. **Benthic Species:** corals; sponge; crystalline algae
12. **Quantification:** proportion; number; frequency; total area; total volume; presence/absence; ratio
13. **Gear:** nets; traps; hooks; longline; trawl; troll; gillnet; seine; trap; hook and line; dive
14. **Fishery Category:** fishery (by species, gear, market); fleet (by vessel size, ownership, gear)
15. **Pollution:** thermal & heated water; sewage; debris; oil discharge; noise; light
16. **Food-web Interactions:** Interaction Strength; Metabolic Respiration; energy flow; carbon flow
17. **Food-web Stability:** CV of biomass; Eigenvalue from Community Matrix Interactions.
18. **Regime Shift Indicators:** CV of biomass; Average Trophic Level; Length of fish; End-to-End Ecosystem Models; Ecosystem Exploitation Index
19. **Eutrophication evidence:** nutrient concentrations; hypoxia; algal blooms; changes phytoplankton communities; fish kills.
20. **Social Factor:** suicide rate; infant mortality rate; unemployment rate; migration rate; employment rate; life expectancy; real per capita income; job satisfaction level employment rate; life expectancy; real per capita income; job satisfaction level
21. **Human Population:** general human population; fisheries participants; aboriginal people; youth; women; coastal communities
22. **Human Geographic Region:** country; province; region; community; First Nation territory
23. **Services:** education; housing; daycare; medical care
24. **Education:** primary school, some high school; high school graduate; some postsecondary; postsecondary certificate or diploma; bachelor's degree; master's degree; PhD
25. **Seafood:** by species grouping (e.g., salmon, groundfish); species (e.g., chum salmon, prawns); gear and species (e.g., gillnet-caught chum salmon)
26. **Adjacent:** within 10 miles; within 100 miles; in province; in country
27. **Product Category:** landed; processed; available for sale; consumed; exported from
28. **Processing Type:** fresh; fresh-frozen; frozen-at-sea; smoked; fish product (e.g., surimi); canned; fishmeal
29. **Certification Standards:** occupational first aid; marine emergency duties; master's ticket; engineer's ticket
30. **Data:** federal fisheries data that does not violate privacy, confidentiality or national security requirements; federal fisheries catch data; federal; fisheries stock assessment data; federal fisheries quota transaction data; provincial fisheries processing data; fisheries ownership data
31. **Fishery Related Website:** DFO website; industry association website; community association fisheries website; ENGO fisheries website
32. **Organization Condition:** number of; participation rates in; funding for
33. **Organization:** arts organizations; cultural institutions; social organizations; environmental organizations; political organizations; industry associations
34. **Jurisdiction:** federal; provincial; municipal; First Nation

35. **Qualitative:** survey; focus group; interview; public hearing; public inquiry; study; legal proceedings; media article
36. **Well-being Index:** OECD Better Life Index; Genuine Progress Index; Gross National Happiness; Human Development Index
37. **Economic Unit:** Individual; enterprise; fishery; industry
38. **Stakeholder Group:** Aboriginal communities; Industry; Resource Users; Regional government; Community groups; Environmental interests; Provincial Government
39. **Compensation:** payment; wage; share; bonus
40. **Sector:** commercial; recreational; food; cultural
41. **Access:** open access; licence; quota; individual property right; hereditary right; communal property right
42. **Operator Type:** processor with fisheries access rights; non-participating access owner (investor); owner-operator; active fishermen without ownership access
43. **Fisheries Related Private Infrastructure:** vessels; processing plants; service providers; manufacturers
44. **Fisheries Related Public Infrastructure:** wharves, docks, piers; coast guard facilities; research stations and vessels; stock enhancement facilities
45. **Benefit Axis:** employment; access (quota, licence); physical capital (e.g., vessels); income; revenue; food; opportunity
46. **Socio-economic Distribution Axis:** gender; age; sector; fishery; region; community; enterprise; vessel; harvester; individual
47. **Cost Axis:** loss of capital; loss of human life; human health impacts; habitat loss; ecosystem service losses; opportunity costs; foregone revenues
48. **Value Type:** landed value; export value; wholesale value; retail value
49. **Value Chain Element:** producer; processor; wholesaler; retailer; consumer; investor
50. **Risk Axis:** ecological; financial; economic; health; cultural
51. **Livelihood Index:** Sustainable Livelihood Security Index; Economic Security Index
52. **Human Demographic Axis:** age; sex; place of residence; aboriginal status; education; income level
53. **Occupational Axis:** skipper; deckhand; tenderman; diver; shoreworker; technician; fisheries observer; fisheries scientist; processor; fisheries manager; fisheries researcher
54. **Productivity:** labour productivity; multi-factor productivity; capital productivity
55. **Efficiency:** allocative efficiency; productive efficiency; technical efficiency
56. **Financial ratio:** cash ratio; current ratio; effective tax rate; return on equity; debt to equity; cash flow to debt; price/earnings ratio; dividend yield
57. **Agreement:** conditional sales agreement; trust agreement; minimum price agreement; collective agreement
58. **Experience:** months or years working in industry; position (deckhand, skipper); fisheries
59. **Labour tactic:** strike; blacklist; boycott
60. **Financial Information:** licence value; quota value; share value; wages; price; revenues; costs; profits; stock status
61. **Legislation/Regulation:** *Fisheries Act*; *Oceans Act*; Marine Stewardship Council (MSC) requirements; industry association regulations
62. **Market Failure:** corporate concentration; insider trading; undue market control; transfer pricing; price gouging; price-fixing
63. **Enforcement:** arrest, prosecution, fine, jail term
64. **Economic Variables:** price; rent; subsidies; externalities; consumer surplus; producer surplus
65. **Institutional Arrangement:** legislation; regulation; policy; programs; management structures
66. **Management Plan:** IFMP; marine use plan; land use plan
67. **Support:** financial; human resources; technical; logistical

68. **General Management Activity:** planning; policy-making; data collection; research and analysis; decision-making; audit and evaluation; training; administration; communications

69. **Fisheries Management Activity:** monitoring; enforcement; stock assessment; research; habitat monitoring; habitat protection; habitat restoration; habitat enhancement; harvest planning; harvest management

70. **Conflict Resolution Approaches:** Facilitative approach; Mediation; Negotiation; Arbitration; Rights based Court system; Rule based processes; Transformative approach; Interest based approach; Evaluative approach; Activist approach; Narrative approach

71. **Agreement Element:** goals & objectives; terms of reference; statement of roles and responsibilities; duration and renewal conditions; liability and accountability provisions; dispute resolution mechanisms; audit and evaluation conditions

72. **Collaboration Type:** public-private partnerships; private-social partnerships; co-management

73. **Collaboration Criteria:** power-sharing; information-sharing; shared rule-making; multi-party agreements signed and/or renewed; multi-party management plans

74. **Co-operation Criteria:** disputed decisions; disputes resolved; availability of third party conflict resolution services; use of third party conflict resolution services; ministerial intervention

75. **Inclusivity Criteria:** access to funding; access to other resources; attendance at meetings; participation rates at public hearings; travel time between fishing communities & meeting locations; membership in stakeholder groups

76. **Information Standards:** allocation decisions include explicit trade-off analysis; decisions include risk assessment; peer review of science; knowledge of legal and regulatory framework; indicators are SMART; use of EBM approaches; application of Precautionary Approach; incorporation of local and traditional knowledge; multi-disciplinarity; MSE; Bayesian Decision Networks

77. **Predictability Criteria:** clearly established and communicated processes for decision making; following plain meaning of a process or provision; pursue process as it was intended by drafters; follow precedent

78. **Flexibility Criteria:** adherence to process and precedent; consideration of range, time, change, conditions of uncertainty and favourability; consideration of trigger events, trigger states, decisions and choices; distinguish between flexible, inflexible and degrees of flexibility

79. **Transparency Criteria:** availability of information; usability of available information; public release of rationale for decision

80. **Compliance Criteria:** conformation to rules, regulations, plans, policies, standards, agreements, laws and administrative specifications; requirement of and conformity to covenants of permits, certificates, licenses or leases; penalties in place to address infractions such as fines, seizure of harvest

81. **Power Dynamics Criteria:** sources of power imbalances (personal, relational, data, technological, professional, structural, educational, capacity etc.); types of power relations (citizen, delegated or power over, partnership or power with, powerless, empowered, coercive, cooperative); power holders

82. **Rule Level:** constitutional level; collective level; operational level

83. **Accredited Organization Criteria:** represents members; requires members to pay an annual due; maintains a duly elected executive; has established and maintains a reporting mechanism; has made required filings and registration with appropriate public bodies; maintains minimum membership size

84. **Trade-off Criteria:** qualitative and quantitative frameworks to discuss trade-offs; clarified decision context; clear statement of and justification for trade-offs; evaluation and selection of trade-offs; assignment of ranks or preferences for alternatives; estimation of risk (objective and subjective)

85. **Assessment Method:** performance based audit; program evaluation; fishery management plan evaluation; third-party fisheries certification assessment; management strategy evaluation; CFRN indicator framework .