



Chum salmon – Male in freshwater phase  
(U. S. Fish and Wildlife Service/Timothy Knepp)

# Reduce, Reuse, Recycle:



Pink salmon – Male in freshwater phase  
(U. S. Fish and Wildlife Service/Timothy Knepp)

## Applying the Principles of Industrial/Organizational Psychology to the Workload created by Ecocertifications

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### Introduction

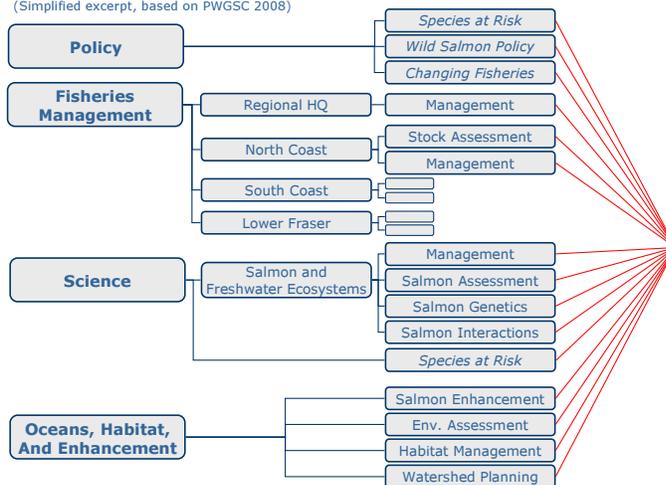
Ecocertification intends to link market incentives with fisheries sustainability. Certifiers are continuously refining the evaluation process, but substantial challenges remain for fisheries agencies faced with the practical aspects of compiling submissions for ecocertification (fragmented information, workload, transparency). These challenges are magnified when an agency has to deal with dozens of concurrent certifications and regular re-certifications. For example, Fisheries and Oceans Canada (DFO) is currently involved in the certification process for 42 evaluation units, spanning both coasts and covering the full spectrum of Canadian commercial fisheries. Principles of Industrial/Organizational Psychology can be applied to the task of compiling submissions, improving both the efficiency of the process and the institutional value of the resulting documentation beyond the immediate certification requirements.

### Case Study: Ecocertification of British Columbia Pink and Chum Salmon Fisheries

- Certification requires in-depth evaluation of all aspects of the fishery (target stocks, by-catch, other ecosystem impacts, management approach)
- 2 species with markedly different life histories, population structure, and ecological roles.
- 3 commercial gear types harvest salmon along the entire coast (~ 1,000km), in dozens of distinctly managed fisheries, all adapted to local circumstances.
- ~100 agency contributors and reviewers to cover all topics relevant to the certification process (but the agency is not the applicant for certification)
- Fundamental changes in management system are on-going (e.g. evolving case law, treaty negotiations, fleet restructuring, collaborative management)

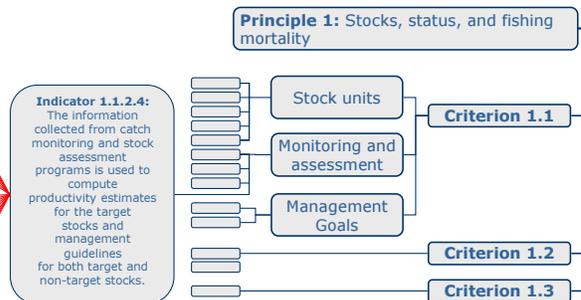
#### DFO Pacific Region

(Simplified excerpt, based on PWGSC 2008)



#### MSC Assessment Tree

(Excerpt, adapted from Tavel 2008)



... x 47 Indicators in 3 Principles x 7 Units !

... + other science divisions, enforcement, data management.

### Applying I/O Principles to Certification Processes

- **Task Inventory:** Catalogue distinct pieces of information required for certification process -> breaking main task into manageable sub-tasks
- **Task Matching:** Align sub-tasks closely with regular responsibilities of contributors and reviewers -> minimize additional workload
- **Task Clarity:** Clearly identify sub-tasks for each contributor in detailed templates -> minimize inconsistencies across contributors
- **Task Efficiency:** Organize required materials to minimize repetition (i.e. task clusters) -> minimize workload associated with review and updating

#### DFO Pacific Region



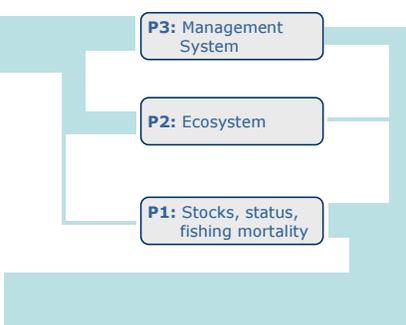
**Management Summary**

- Legal setting (e.g. treaties)
- Recent policy developments
- Social / Economic
- Regional objectives
- Reg. monitoring strategy
- Reg. decision processes
- Reg. conservation measures
- Research priorities
- Habitat management
- Coastal zone management
- Advisory processes
- Public consultation

**Unit Profile**

- Stock units
- Life history
- Enhancement
- Fisheries
- Conservation objectives
- Management objectives
- Decision guidelines
- Assessment framework
- Stock status and trends
- Local conservation measures

#### MSC Principles



### Outcomes

**Reduce:** Efficient drafting and review, because sections are matched with staff responsibilities / Efficient transition to revised assessment tree (MSC 2008), because only need to revise the index that matches sections to indicators.

**Reuse:** Efficient annual updating of *Unit Profiles* with new data / *Management Summary* only needs to be updated every 5 years for recertification

**Recycle:** Use as template for other certifications (e.g. other species, different third-party certifiers) / Use as reference material for new agency staff / Use as resources for public consultation and collaborative planning.

### References

Marine Stewardship Council (2008) *Fisheries Assessment Methodology*.  
 Pestal, Spilsted, and Dobson (2009) *Management summary for BC pink & chum salmon fisheries*. Can. Man. Rep. Fish. Aqu. Sc. 2878.  
 Public Works and Government Services Canada (2008) *Government Electronic Services Directory*. Accessed at direct.srv.gc.ca on October 9, 2008.  
 Tavel Certification Inc. (2008) *Draft Performance Indicators and Scoring Guideposts for Assessment of BC Pink and Chum Seine, Troll and Gillnet Fisheries*. Retrieved from www.msc.org on October 9, 2008.