

# **Regulation of Aquaculture:**

*Current challenges and future prospects for the  
industry in Canada*

Presentation to the  
Senate Standing Committee on  
Fisheries and Ocean

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# Comparing Federal Regulation of Aquaculture with other Canadian Resource Sectors and Aquaculture in Scotland

- *Canadian Aquaculture industry is not overregulated federally and.....*

	Canada				Scotland
	Forestry	Mining	Livestock Operations	Aquaculture	Aquaculture
	<ul style="list-style-type: none"> <li>•Forestry Act</li> <li>•Species at Risk</li> <li>•Migratory Birds Convention Act</li> <li>•Fisheries Act</li> <li>•Canadian Environmental Assessment Act</li> <li>•Canadian Environmental Protection Act</li> <li>•Pest Control Products Act</li> <li>•Fertilizer Act</li> </ul>	<ul style="list-style-type: none"> <li>•Mining Act</li> <li>•Species at Risk</li> <li>•Migratory Birds Convention Act</li> <li>•Fisheries Act</li> <li>•Canadian Environmental Assessment Act</li> <li>•Canadian Environmental Protection Act</li> <li>•Navigable Waters Act</li> <li>•Transportation of Hazardous Goods Act</li> </ul>	<ul style="list-style-type: none"> <li>•Agricultural Products Marketing Act</li> <li>•Animal Pedigree Act</li> <li>•Canada Agricultural Products Act</li> <li>•Food and Drug Act</li> <li>•Canadian Food Inspection Agency Act</li> <li>•Feeds Act</li> <li>•Meat Inspection Act</li> <li>•Species at Risk Act</li> <li>•Canadian Environmental Assessment Act</li> <li>•Canadian Environmental Protection Act</li> <li>•Pest Control Products Act</li> <li>•Health of Animals Act</li> </ul>	<ul style="list-style-type: none"> <li>•Fisheries Act</li> <li>•Oceans Act</li> <li>•Navigable Waters Protection Act</li> <li>•Canadian Environmental Assessment Act</li> <li>•Canadian Environmental Protection Act</li> <li>•Canada Wildlife Act</li> <li>•Coastal Fisheries Protection Act</li> <li>•Migratory Birds Convention Act</li> <li>•Canadian Food Inspection Agency Act</li> <li>•Pest Control Products Act</li> <li>•Food and Drugs Act</li> <li>•Health of Animals Act</li> </ul>	<b>Scottish and UK Legislation</b> <ul style="list-style-type: none"> <li>•Agriculture Act</li> <li>•Food Safety Act</li> <li>•Marine and Coastal Access Act</li> <li>•Welfare of Animals (Slaughter or Killing) Act</li> <li>•Crown Estate Act</li> <li>•Wildlife and Countryside Act</li> <li>•Environmental Protection Act</li> <li>•Town and Country Planning Act</li> <li>•Water Environment and Water Services Act</li> <li>•Planning Act</li> <li>•Animal Health and Welfare Act</li> <li>•Aquaculture and Fisheries Act</li> <li>•Climate Change Act</li> <li>•Marine Act</li> <li>•Aquaculture and Fisheries Act</li> </ul>
<b>Total Federal Acts</b>	<b>8</b>	<b>8</b>	<b>12</b>	<b>12</b>	<b>15</b>
	Source: National Council for Air and Stream Improvement, Inc. (NCASI). 2014. Compilation of Canadian provincial and federal regulations relevant to forest management activities. Special Report No. 14-03. <a href="http://www.ncasi.org/Downloads/Download.ashx?id=9485">www.ncasi.org/Downloads/Download.ashx?id=9485</a>	Source: <a href="http://mining.ca/our-focus/regulatory-effectiveness">http://mining.ca/our-focus/regulatory-effectiveness</a>	Source: <a href="http://www.omafr.gov.on.ca/english/livestock/regaffairs/ontar.html">http://www.omafr.gov.on.ca/english/livestock/regaffairs/ontar.html</a> <a href="http://www.inspection.gc.ca/about-the-cfia/acts-and-regulations/eng/1299846777345/129984744223">http://www.inspection.gc.ca/about-the-cfia/acts-and-regulations/eng/1299846777345/129984744223</a>	Source: <a href="http://www.dfo-mpo.gc.ca/aquaculture/ref/legal-lois-eng.htm#annIV">http://www.dfo-mpo.gc.ca/aquaculture/ref/legal-lois-eng.htm#annIV</a>	Source: Engler, C. 2014. Analysis of aquaculture legislation and regulation in Scotland. Schulich School of Law, Dalhousie University. <a href="http://www.aquaculturereview.ca/sites/default/files/Aquaculture%20Regulatory%20Analysis%20Framework%20%20Scotland%20(Draft)%202014%207%2028.pdf">http://www.aquaculturereview.ca/sites/default/files/Aquaculture%20Regulatory%20Analysis%20Framework%20%20Scotland%20(Draft)%202014%207%2028.pdf</a>

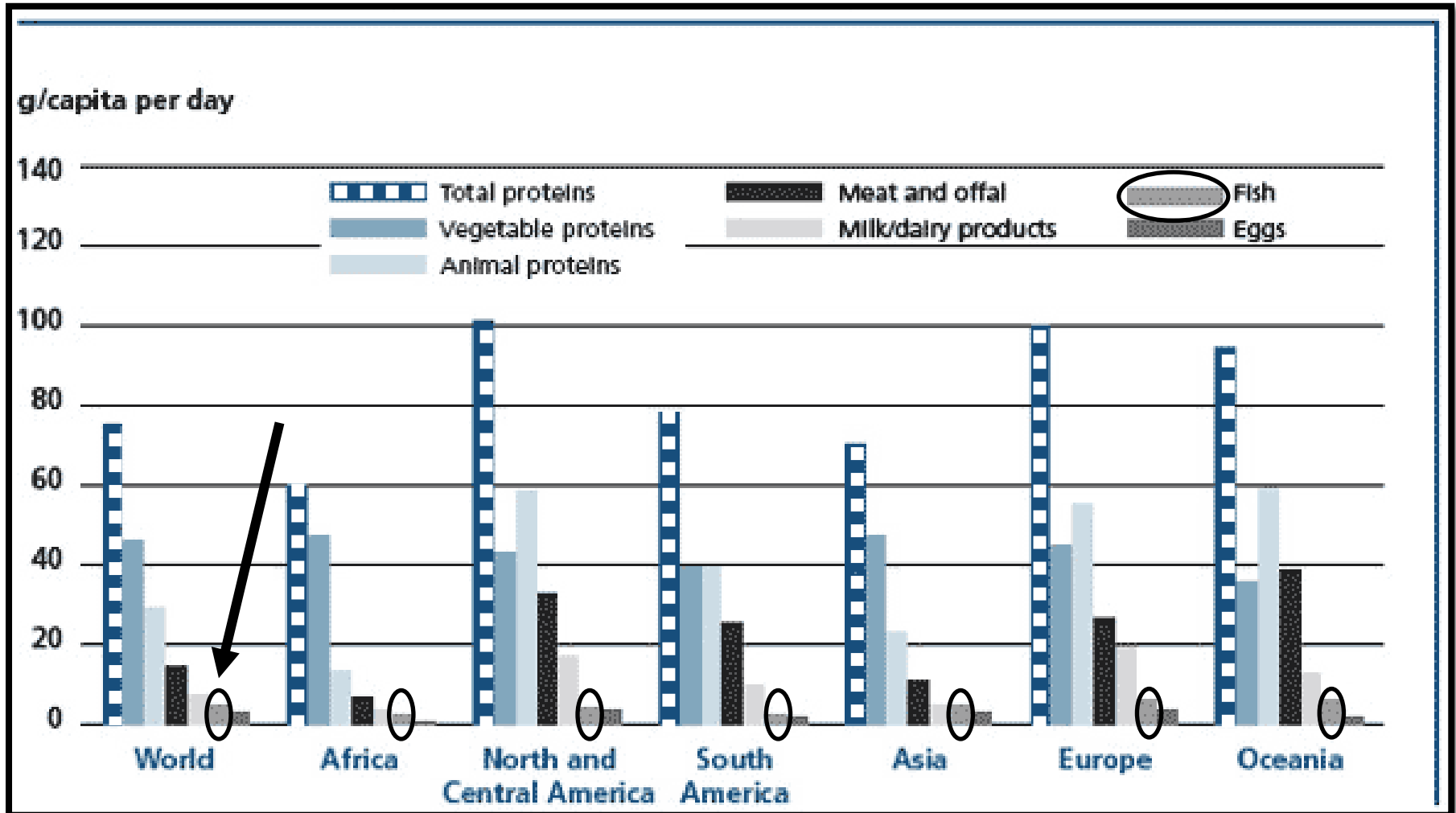
# Comparing Provincial Regulation of Aquaculture with other Canadian Resource Sectors and Aquaculture in Scotland

- *Canadian Aquaculture industry is not overregulated provincially*

	New Brunswick		Ontario	New Brunswick	Scotland
	Forestry	Mining	Livestock Operations	Aquaculture	Aquaculture
	<ul style="list-style-type: none"> <li>•Crown Lands and Forests Act</li> <li>•New Brunswick Foresters Act</li> <li>•Scalers Act</li> <li>•Transportation of Primary Forest</li> <li>•Products Act</li> <li>•Forest Products Act</li> <li>•Natural Products Act</li> <li>•Forest Fires Act</li> <li>•Protected Natural Areas Act,</li> <li>•Heritage Conservation Act</li> <li>•Species at Risk Act</li> <li>•Plant Health Act</li> <li>•Pest Control Act</li> <li>•Clean Water Act</li> <li>•Clean Environment Act</li> </ul>	<ul style="list-style-type: none"> <li>•Mining Act</li> <li>•Clean Environment Act</li> <li>•Clean Water Act</li> <li>•Clean Air Act</li> </ul>	<ul style="list-style-type: none"> <li>• Animal Welfare Act</li> <li>•Dead Animal Disposal Act</li> <li>• Environmental Species Act</li> <li>•Environmental Protection Act</li> <li>• Environmental Assessment Act</li> <li>• Fish and Wildlife Conservation Act</li> <li>•Ontario Water Resources Act</li> <li>• Lakes and Rivers Improvement Act</li> <li>• Planning Act</li> <li>•Municipal Act</li> <li>• Green Belt Act</li> <li>• Farming and Food Production Act</li> <li>• Food Safety and Quality Act</li> <li>• Livestock Medicines Act</li> <li>• Health Protection and Promotion Act</li> <li>•Pesticides Control Products Act</li> <li>•Pesticides Act</li> <li>•Line Fences Act</li> <li>•Drainage Act</li> <li>•Livestock Identification Act</li> <li>•Sales of Livestock Medicines Act</li> <li>• Veterinarian Act</li> <li>•Ontario Society for the Prevention of Cruelty of Animals Act</li> </ul>	<ul style="list-style-type: none"> <li>•Aquaculture Act</li> <li>•Fish and Wildlife Act</li> <li>•Fish Inspection Act</li> <li>•Fish Processing Act</li> <li>•Inshore Fisheries Representation Act</li> <li>•Clean Environment Act</li> <li>•Pesticide Control Act</li> </ul>	<p><b>European Union</b></p> <ul style="list-style-type: none"> <li>•Directive 2000/60/EC - water</li> <li>•Directive 2008/56/EC - community action</li> <li>•Directive 85/337/EEC - public participation</li> <li>•Directive 76/464/EEC – pollution discharge</li> <li>•Directive 92/43/EEC – habitat conservation</li> <li>•Directive 2001/18/EC - release of GMOs</li> <li>•Directive 2006/88 – animal health</li> <li>•Council Regulation (EC) 708/2007 – alien species</li> <li>•Council Regulation (EC) No 882/2004 – feed and food</li> <li>•Council Regulation (EC) No 852/2004 – food handling and hygiene</li> <li>•Council Regulations (EC) 853/2004 – human consumption</li> <li>•Council Regulation (EC) 854/2004 – slaughter of animals</li> </ul> <p><b>+ 17 more regulations and directives</b></p>
Total Acts	<b>14</b>	<b>4</b>	<b>23</b>	<b>7</b>	<b>29</b>
	Source: National Council for Air and Stream Improvement, Inc. (NCASI). 2014. Compilation of Canadian provincial and federal regulations relevant to forest management activities. Special Report No. 14-03. <a href="http://www.ncasi.org/Downloads/Download_a_shx?id=9485">www.ncasi.org/Downloads/Download_a_shx?id=9485</a>	Source: <a href="http://mining.ca/our-focus/regulatory-effectiveness">http://mining.ca/our-focus/regulatory-effectiveness</a>	Source: <a href="http://www.omafr.gov.on.ca/english/livestock/regaffairs/ontar.html">http://www.omafr.gov.on.ca/english/livestock/regaffairs/ontar.html</a> <a href="http://www.inspection.gc.ca/about-the-cfia/acts-and-regulations/eng/1299846777345/129984744223">http://www.inspection.gc.ca/about-the-cfia/acts-and-regulations/eng/1299846777345/129984744223</a>	Source: <a href="http://www.dfo-mpo.gc.ca/aquaculture/ref/egal-lois-eng.htm#annIV">http://www.dfo-mpo.gc.ca/aquaculture/ref/egal-lois-eng.htm#annIV</a>	Source: Engler, C. 2014. Analysis of aquaculture legislation and regulation in Scotland. Schulich School of Law, Dalhousie University. <a href="http://www.aquaculturerreview.ca/sites/default/files/Aquaculture%20Regulatory%20Analysis%20Framework%20%20Scotland%20(Draft)%202014%2007%2028.pdf">http://www.aquaculturerreview.ca/sites/default/files/Aquaculture%20Regulatory%20Analysis%20Framework%20%20Scotland%20(Draft)%202014%2007%2028.pdf</a>

# Global Protein Consumption By Source

- *Aquaculture products are not feeding the world's hungry*

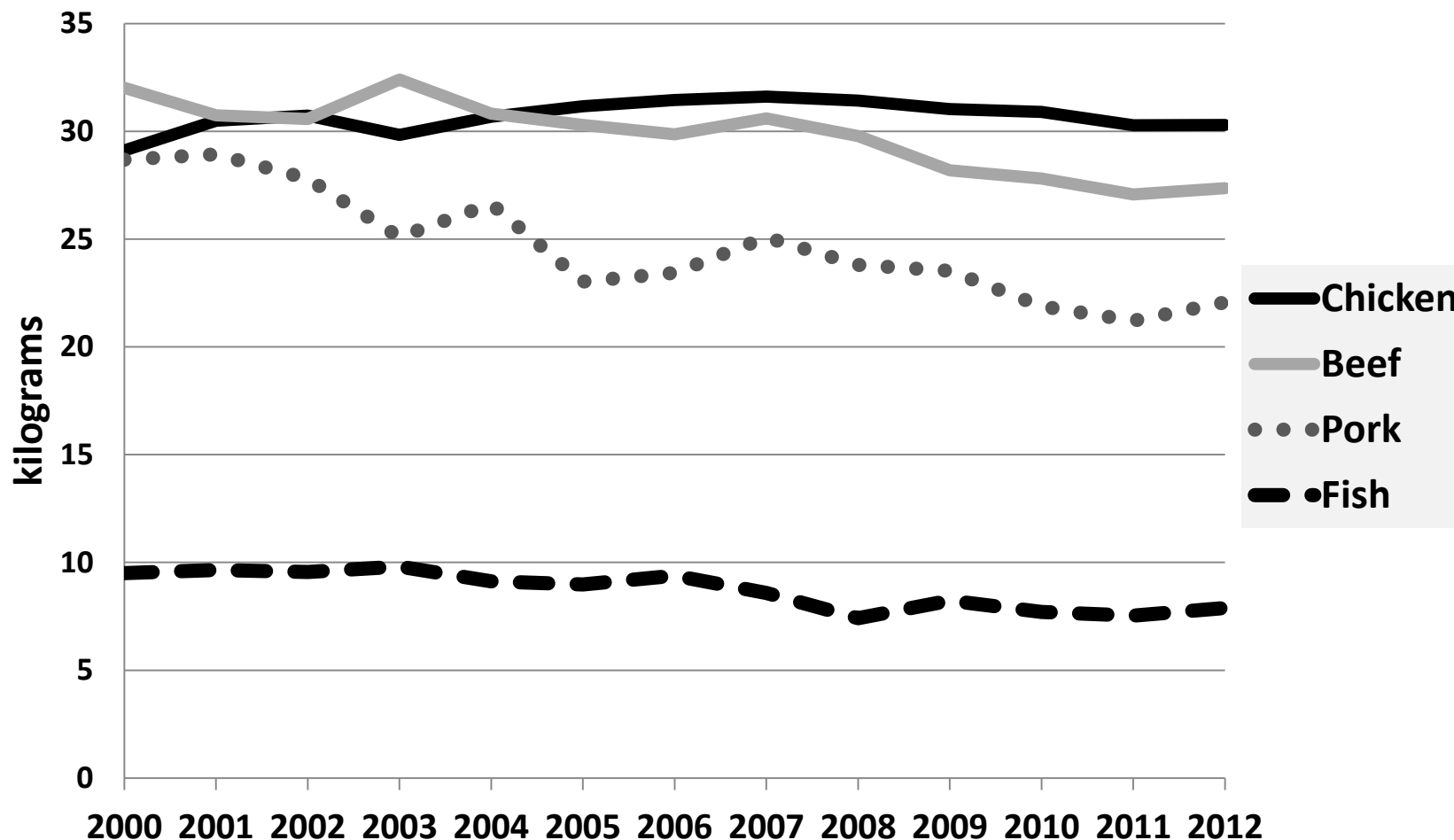


Source: United Nations Food and Agriculture Organization (FAO) 2010: Fisheries and Aquaculture Statistics

<http://www.fao.org/docrep/015/ba0058t/ba0058t00.htm>

# Canadian Per Capita Protein Consumption (2000-2012)

• *Canadian low fish consumption patterns confirm global trends*

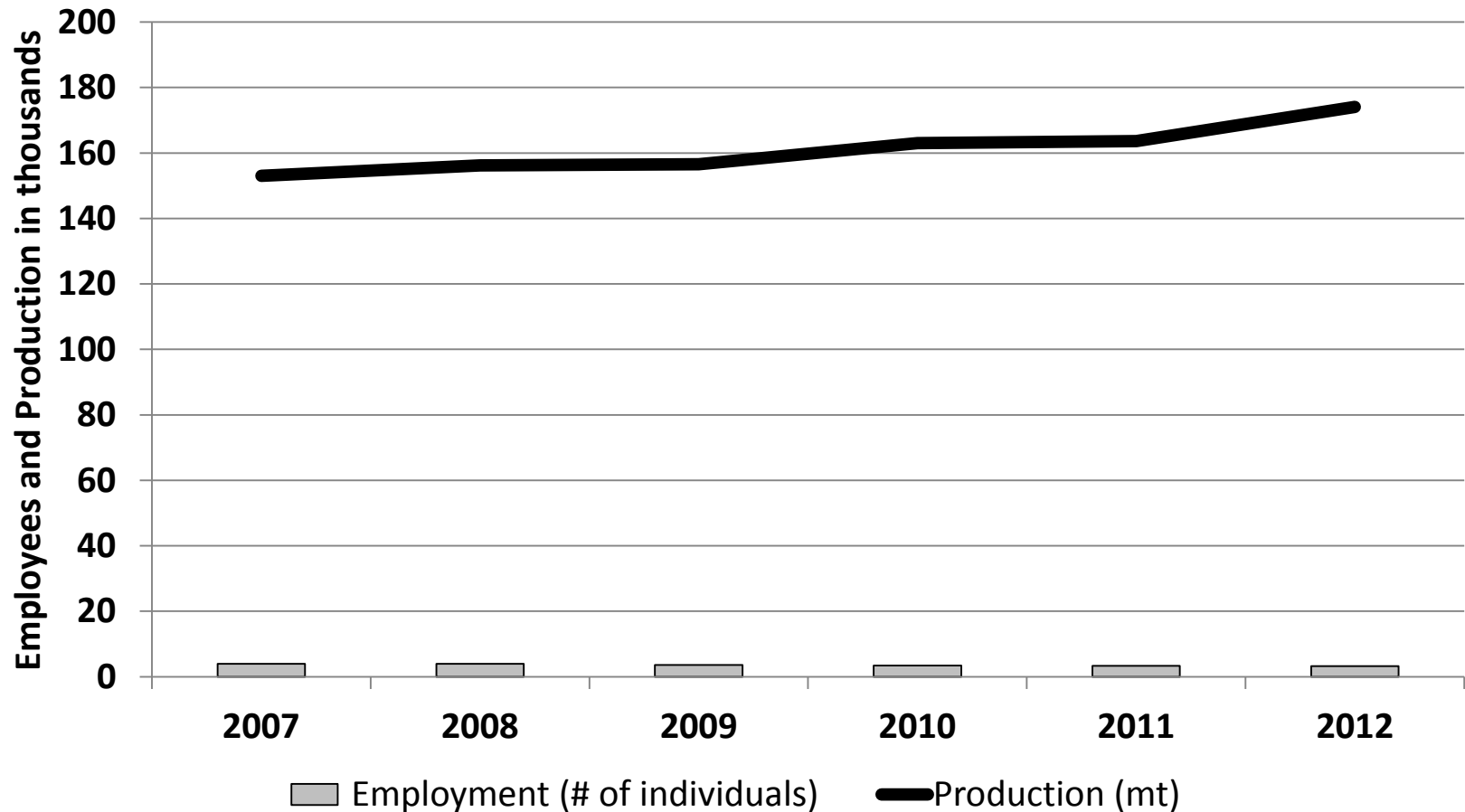


Source: Statistics Canada - Tables 002-0010 and 051-0001. Agriculture and Agri-Food Canada 2013.  
<http://www.agr.gc.ca/eng/industry-markets-and-trade/statistics-and-market-information/by-product-sector/poultry-and-eggs/poultry-and-egg-market-information-canadian-industry/industry-indicators/per-capita-consumption/?id=1384971854413>

# Canada's Aquaculture Industry (2007-2012)

## Direct Employment and Production

- *Between 2007-2012 direct employment dropped 18% and production increased 13.7%*



Source: <http://www.dfo-mpo.gc.ca/stats/cfs-spc/tab/cfs-spc-tab2-eng.htm>

# Norway Farmed Salmon (2000-2012)

## Direct Employment and Production

- *Norway produces six times the farmed salmon as Canada with approximately the same workforce*

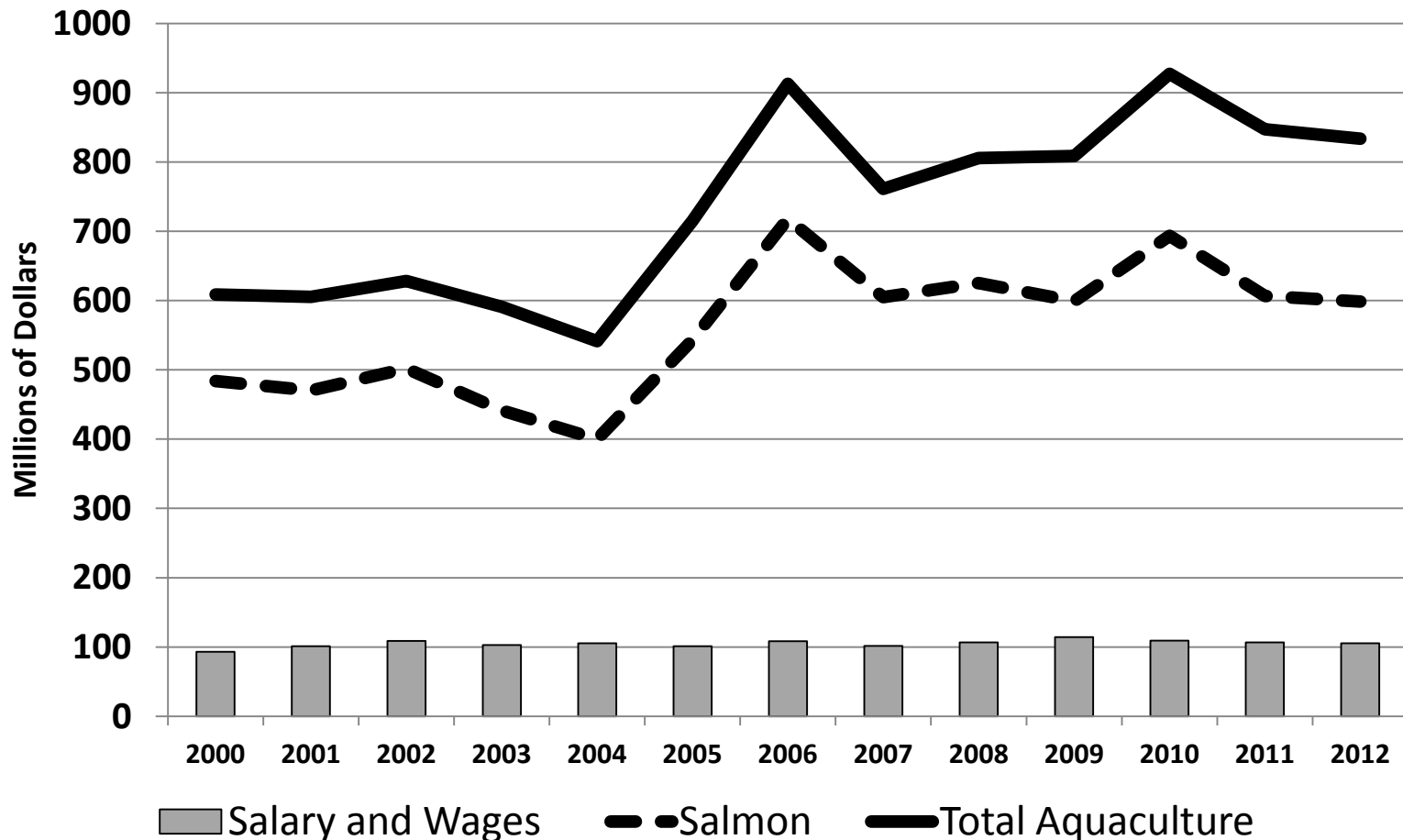


Source: <http://www.fiskeridir.no/english/statistics/norwegian-aquaculture/aquaculture-statistics/>

# Value of Aquaculture In Canada (2000-2012)

## Production and Cost of Salary/Wages

- From 2000 to 2012 total value of production increased 37% while the cost of salary/wages increased only 13%





# Integrated Coastal Planning Under Canada's Oceans Act

- *The solution to creating an efficient, effective and fair regulatory process*
- Planning would set out strategic planning objectives that would clarify coastal development goals and priorities
- Planning would define suitable and sensitive areas for development thereby eliminating uncertainty about site availability and investment
- Planning would address potential conflicts with other users and other regulatory agencies.

For more information on Canada's Oceans Act and Integrated Management go to:

<http://www.dfo-mpo.gc.ca/oceans/publications/cosframework-cadresoc/page03-eng.asp>