

**CONTRIBUTION TO THE DISCUSSION ON THE FRAMEWORK FOR  
DISCIPLINES ON FISHERIES SUBSIDIES – AQUACULTURE**

Submission from Australia, Ecuador and New Zealand

The following communication, dated 30 June 2005, is being circulated at the request of the Delegations of Australia, Ecuador and New Zealand.

The submitting delegations have requested that this paper, which was submitted to the Rules Negotiating Group as an informal document (JOB(05)/137), also be circulated as a formal document.

---

**1. Introduction**

New Zealand's paper on management services<sup>1</sup> and the United States' paper on vessel decommissioning<sup>2</sup> marked the first detailed discussions of particular categories of fisheries subsidies, putting aside the question of the structure of such disciplines. Whilst the New Zealand and United States papers focussed on the criteria needed to allow exceptions to new disciplines, this paper addresses the scope of aquaculture fisheries and consequently whether disciplines should be developed to cover aquaculture. Our paper is written from the perspective of examining the extent to which certain types of fisheries subsidies contribute to trade distortion and impact on resources.

The purpose of this paper is to elicit views on the extent that aquaculture is relevant to WTO Members' consideration, in particular:

- (a) what is the scope of activities covered by the term "aquaculture"?
- (b) is there a need to develop disciplines to cover aquaculture?
  - (i) does aquaculture impact on wild capture fisheries?
  - (ii) what are the trade distorting/resource impacts of subsidies to aquaculture?
  - (iii) what would be the consequences of placing new disciplines on subsidies to wild capture fishing but not aquaculture?
  - (iv) what are the key interests of Developing Countries in this area?

---

<sup>1</sup> TN/RL/GEN/36

<sup>2</sup> TN/RL/GEN/41

To date, little discussion has taken place on these issues. Brazil<sup>3</sup>, China<sup>4</sup> and Hong Kong China have, for example, expressed a view on whether aquaculture should be included in future disciplines. We consider that there is merit in the Rules Negotiating Group further considering the issue, with the intention of generating further analysis and discussion regarding aquaculture subsidies.

## 2. Background

The FAO reports that world fish consumption more than tripled over the period 1961 – 2002, increasing from 29 to 100.7 million tonnes.<sup>5</sup> Global fisheries production has doubled since 1973, reaching 133 million tonnes in 2002.<sup>6</sup> Global exports of fisheries products in 2001 (the latest available figures) totalled 27.2 million tonnes.<sup>7</sup> We note that these figures do not differentiate between production levels for high and low value fisheries products. Recently the major increases in global fisheries production have been attributed to aquaculture fisheries production, rather than wild capture production. In particular, output from aquaculture (excluding aquatic plants) grew at an annual average rate of 9.1 per cent from 1971 - 2001, compared to a rate of 1.2 per cent growth in wild capture fisheries.<sup>8</sup> The FAO considers that increases in aquaculture production will need to continue in order to meet future global consumption demands, particularly because, most capture fisheries are at or near their production limits.<sup>9</sup> Asia produced 88.5 per cent of world aquaculture output (excluding aquatic plants) in 2001. Asia is expected to continue to produce the bulk of aquaculture output by 2020, and all regions are forecast to expand aquaculture production.<sup>10</sup>

Estimates of Global fisheries subsidies vary between 14 billion US dollars and 20 billion dollars annually.<sup>11</sup> OECD efforts to collect information of government financial transfers have proven difficult and data provided to the OECD on financial transfers to the aquaculture sector have not been reported on an aggregate OECD basis.<sup>12</sup> Nevertheless, commentators suggest that the effects of such financial transfers are significant. It has also been argued that the financial transfers to the aquaculture sector may be more likely to target research compared to transfers provided to other fisheries sectors<sup>13</sup>.

---

<sup>3</sup> TN/RL/W/176

<sup>4</sup> TN/RL/W/88. See also Questions and Comments from Korea (TN/RL/W/160) on New Zealand's Communications on Fisheries Subsidies (TN/RL/W/154).

<sup>5</sup> FAO Biennial report, *The State of World Fisheries and Aquaculture (SOFIA)*, 7 March 2005.

<sup>6</sup> FAO Biennial report, *The State of World Fisheries and Aquaculture (SOFIA)*, 7 March 2005. and Brugere, C., Ridler, N. "Global Aquaculture Outlook in the Next Decades: An Analysis of National Aquaculture Production Forecasts to 2030" Food and Agriculture Organization, Rome, Fisheries Circular No.C1001, 2004

<sup>7</sup> See the FAO Fisheries Global Information System at [www.fao.org/figis](http://www.fao.org/figis). The extent of international trade in aquaculture products is difficult to analyse because trade in many of these products is not yet documented and international trade statistics do not distinguish between wild and farmed origin.

<sup>8</sup> Brugere, C., Ridler, N. "Global Aquaculture Outlook in the Next Decades: An Analysis of National Aquaculture Production Forecasts to 2030" Food and Agriculture Organization, Rome, Fisheries Circular No.C1001, 2004. According to the FAO Biennial report, *The State of World Fisheries and Aquaculture (SOFIA)*, 7 March 2005, the share of world fisheries production attributable to aquaculture increased from 25.8 to 29.9 per cent between 1998 and 2002.

<sup>9</sup> Brugere, C., Ridler, N. "Global Aquaculture Outlook in the Next Decades: An Analysis of National Aquaculture Production Forecasts to 2030", UN Food and Agriculture Organization, Rome, Fisheries Circular No.C1001, (2004).

<sup>10</sup> Brugere, C., Ridler, N. Food and Agriculture Organization, Rome, Fisheries Circular No.C1001, 2004.

<sup>11</sup> Milazzo, M., "Subsidies in World Fisheries: A re-examination", World Bank Technical paper no. 406, World Bank, Washington DC, (1998)

<sup>12</sup> Cox, A. and Schmidt, CC., "Subsidies in the OECD Fisheries Sector: A Review of Recent Analysis and Future Directions", UN Food and Agriculture Organization, (2002)

<sup>13</sup> Cox, A. and Schmidt, CC., "Subsidies in the OECD Fisheries Sector: A Review of Recent Analysis and Future Directions", UN Food and Agriculture Organization, (2002)

### 3. Topics for discussion

#### (a) What is the scope of activities covered by the term "aquaculture"?

Aquaculture is the term commonly used to describe the cultivation or farming of fisheries, generally within the territorial waters of a State. However, it is not always clear what is in practice considered to be aquaculture and how aquaculture is defined in various jurisdictions.

The FAO defines aquaculture as:

*"The farming of aquatic organisms including fish, molluscs, crustaceans and aquatic plants, with some sort of intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc. Farming also implies individual or corporate ownership of the stock being cultivated."*

...

*"For statistical purposes, aquatic organisms which are harvested by an individual or corporate body which has owned them throughout their rearing period contribute to aquaculture"<sup>14</sup>.*

Members should note that there are two kinds of aquaculture, land-based aquaculture and maritime aquaculture. Land-based aquaculture includes farms (ponds) for raising prawns or fin fish (e.g. tilapia), whereas maritime aquaculture includes sea cages of salmon, tuna or trout. This distinction should be kept in mind in considering the questions raised in this paper.

We note that some WTO Members have notified to the WTO Subsidies Committee various programmes which could be considered relating to aquaculture. Some examples of the types of fisheries subsidies, which may encompass aquaculture, notified by WTO Members are:

- subsidies for inland hatching fisheries to mitigate the environmental effects of dam construction<sup>15</sup>;
- subsidies for land improvement, acquisition of land and agricultural mechanization<sup>16</sup>;
- subsidies to assist with the implementation of programmes for the promotion of sustainable fisheries to ensure the stable, safe and efficient supply of food to people<sup>17</sup>;
- subsidies to both regional governments and non-governmental organisations for the promotion of aquaculture to assist with the sustainable management of fisheries resources<sup>18</sup>; and
- subsidies for the development of commercial fisheries for marketing and aquaculture research for non-salmon species.<sup>19</sup>

---

<sup>14</sup> FAO/FIDI, Aquaculture production (1984-1986), UN Food and Agriculture Organization, Rome, Fisheries Circular, 815 (1989); FAO, *Aquaculture development. FAO Technical Guidelines for Responsible Fisheries*, 5: p.40 (1997a)

<sup>15</sup> G/SCM/N/95/USA

<sup>16</sup> G/SCM/N/95/JPN

<sup>17</sup> G/SCM/N/95/JPN

<sup>18</sup> G/SCM/N/95/JPN

<sup>19</sup> G/SCM/N//95/CAN

**(b) Is there a need to develop disciplines to cover aquaculture?****(i) Does aquaculture impact on wild capture fisheries?**

Points for consideration: Land-based and maritime aquaculture fisheries, in some WTO member countries, can be stocked using the progeny of brood stock fish caught in wild capture areas that may already be over-exploited by wild capture fishing. Further, some forms of aquaculture production (e.g. tuna) rely entirely on sourcing juveniles from wild capture fisheries, which may further drive pressure on wild fish stocks. Also, given the high demand for marine protein in aquaculture feed, aquaculture may also result in further pressures on wild stocks such as small pelagics commonly used in aquaculture feed.<sup>20</sup> However, we note however that research indicates that catches of species used for aquaculture fishmeal have remained static despite significant increases in aquaculture production over the last 20 years.<sup>21</sup> Aquaculture may have positive environmental affects. For example, it may be used to support re-stocking, re-seeding and ranching processes which can improve wild capture and recreational fisheries.

**(ii) What are the trade distorting/resource impacts of subsidies to aquaculture?**

Points for consideration: Are subsidies to aquaculture less trade distortive in that they may have no impact on other Members' production levels? Should the fact that subsidies to aquaculture also affect the market price for wild capture fish of the same or similar species impact on the decision as to whether aquaculture should be included in any disciplines?

Are the basic characteristics and the problems confronting wild capture and aquaculture fisheries distinct? Land-based aquaculture subsidies can impact on the habitat/food chain in the aquaculture area and beyond. Does this justify the inclusion of aquaculture in future (WTO-plus) disciplines? If maritime aquaculture has a resource impact (eg on related wild fisheries) does this justify inclusion in future WTO disciplines?

**(iii) What would be the consequences of placing new disciplines on subsidies to wild capture fishing but not aquaculture?**

Points for consideration: Are subsidies to aquaculture more amenable to existing disciplines under the WTO Subsidies Agreement (SCM) because their impacts on domestic production and on exports may be more readily assessed? Would this evaluation differ between maritime and land-based aquaculture? Are there specific parts of the WTO SCM that sufficiently cover aquaculture subsidisation (for example, the serious prejudice provisions of Article 6)?

Should these impacts be taken into account in deciding whether aquaculture should be included in new disciplines?

Could aquaculture be excluded from any new disciplines, without providing a means for circumvention of fisheries subsidy prohibitions on non-aquaculture subsidies?

---

<sup>20</sup> See "*Seafeeds: Sustainable Environmental Aquaculture Feeds*" (2003), a report available at [www.nautilus-consultants.co.uk](http://www.nautilus-consultants.co.uk) for a detailed account of issues and trends in aquaculture feed use.

<sup>21</sup> See Allan, G.L. "*Fish for Feed vs Fish for Food*" presented at the Australian Academy of Technological Sciences and Engineering Crawford Fund Conference, "*Fish, Aquaculture and Food Security: Sustaining Fish as a Food Supply*" (11 August 2004).

- (iv) What are the key interests of Developing Countries in this area?

Points for consideration: Aquaculture is "*one of the fastest growing food producing sectors of the world and has achieved a reputation as a significant contributor to poverty alleviation, food security and income generation*".<sup>22</sup> According to the FAO, developing countries contributed over 90 per cent of the total global aquaculture fisheries production.<sup>23</sup> The FAO forecasts that by 2010 fisheries production (including from aquaculture fisheries) will be outweighed by demand for fisheries products which will result in severe restrictions on trade.<sup>24</sup> Accordingly, the effect of a prohibition on subsidies to aquaculture fisheries would be felt even more keenly in developing countries in these forecast circumstances.

How can special and differential treatment operate with respect to aquaculture? In this respect, it would be useful to discuss the extent of DC interests on this issue.

#### **4. Conclusion**

Aquaculture fisheries form a significant part of global fisheries production. Moreover, trade in products from aquaculture fisheries is increasingly important, particularly as the demand for fisheries products begins to outstrip supply. The nature of aquaculture fishery production – in a controlled environment, and generally within the territories of countries – means that subsidies to these fisheries are more amenable to existing SCM disciplines. Nevertheless, trade-distorting aquaculture subsidies that circumvent existing SCM disciplines might be considered by Members as requiring coverage by any new disciplines. Therefore, we encourage Members to further consider the issues surrounding subsidies to aquaculture fisheries.

---

<sup>22</sup> Subasinghe, R.P; "*An Outlook for Aquaculture Development: Major Issues, Opportunities and Challenges*" UN Food and Agriculture Organization, Rome, Fisheries Circular No.C886 Rev. 2 p.31 (2003)

<sup>23</sup> Subasinghe, R.P.; FAO Circular No. C886 (2003)

<sup>24</sup> Josupeit, H. & Franz, N. "*Aquaculture – Trade, Trends, Standards and Outlooks*": A presentation by the FAO Fisheries Department, January 2004.