



Annexes

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## Annex I

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## *Annex II*

# List of organizations dealing with alien species in aquaculture and fisheries

Organization	Mandate
AIT	Education, research and out reach
APEC	Trade and economic issues
FAO	Intergovernmental forum for policy development, information collection/dissemination, and project formulation
WorldFish Center and the International Network for Genetics in Aquaculture	Sustainable use of aquatic germ plasm through research and development in developing countries. Work on alien species and genetically altered species based on the ICES/EIFAC Codes and the principles of the Convention on Biological Diversity. Material Transfer agreements for movements of aquatic germ plasm
IUCN	Research, developing management plans, developing legal and institutional responses
MRC	Intergovernmental forum for coordinated management of the lower Mekong Basin; also with breeding programme for indigenous species
NACA	Intergovernmental forum for aquaculture development in Asia and the Pacific

## Annex III

# Opinionnaire

A REVIEW AND DECISION MODEL FOR EVALUATING PROPOSED INTRODUCTIONS OF AQUATIC SPECIES  
Opinionnaire for appraisal of introductions of aquatic organisms.<sup>1</sup> Each member of an evaluation board or panel of experts circles the number most nearly matching his/her opinion about the probability for the occurrence of the event. If information is unavailable or too uncertain "don't know" is marked then go to Step 2.

### STEP 1 Response

		No	Unlikely	Possibly	Probably	Yes	Do not know
1.	Is the need valid and are no native species available that could serve the stated need?	1	2	3	4	5	X
2.	Is the organism safe from over-exploitation in its native range?	1	2	3	4	5	X
3.	Are safeguards adequate to guard against importation of disease/parasites?	1	2	3	4	5	X
4.	Would the introduction be limited to closed system?	1	2	3	4	5	X
5.	Would the organism be unable to establish a self-sustaining population in the range of habitats that would be available?	1	2	3	4	5	X
6.	Would the organism have mostly positive ecological impacts?	1	2	3	4	5	X
7.	Would most consequences of the introduction be beneficial to humans?	1	2	3	4	5	X
8.	Is data base adequate to develop a complete species synopsis?	1	2	3	4	5	X
9.	Does data base indicate desirability for introduction?	1	2	3	4	5	X
10.	Based on all available information, do the benefits of the exotic fish introduction outweigh the risks?	1	2	3	4	5	X

<sup>1</sup> Kohler, C.C., Stanley, J.G. 1984. A suggested protocol for evaluating proposed exotic fish introductions in the United States. In W.R. Courtney, Jr. and J.R. Stauffer, Jr. eds. *Distribution, biology and management of exotic fishes* pp.387-406. Baltimore. Johns Hopkins University Press

## STEP 2 Review and decision model for evaluating proposed introductions of aquatic organisms

Review level	Opinionnaire value	Decision
<b>I</b>		
1. Is the need valid and are no native species available that could serve the stated need?	$< 2$ $> 2$	- reject - to next question
2. Is the organism safe from over-exploitation in its native range?	$\leq 2$ $> 2$	- reject - to next question
3. Are safeguards adequate to guard against importation of disease/parasites?	$\leq 2$ $> 2$	- reject - to next question
4. Would the introduction be limited to closed system?	$\geq 3$ $< 3$	- approve - to review level II
<b>II</b>		
5. Would the organism be unable to establish a self-sustaining population in the range of habitats that would be available?	$\geq 3$ $< 3$	- approve - to review level III
<b>III</b>		
6. Would the organism have mostly positive ecological impacts?	$\leq 2$ $< 3 > 2$	- reject - to review level IV - to next question
7. Would most consequences of the introduction be beneficial to humans?	$\leq 2$ $< 3 > 2$ $\geq 3$	- reject - to review level IV - to next question
<b>IV</b>		
8. Is data base adequate to develop complete species synopsis?	$< 3$ $\geq 3$	- conduct detailed lit. rev. 1) - to next question
9. Does data base indicate desirability for introduction?	$\leq 2$ $< 3 > 2$ $\geq 3$	- reject - conduct research 2) - approve
10. Would benefits exceed risks?	$\leq 2$ $\geq 3$	- reject - approve

1) Thereafter next step question 9.

2) Research focused on potential impact on indigenous species and habitats. Thereafter question 10. Value  $< 3 > 2$  restart research.