

MALAYSIA - COMMENTS ON LIVING MODIFIED ORGANISMS CONTAINING GENE DRIVE AND LIVING MODIFIED FISH

CBD NOTIFICATION– RISK ASSESSMENT AND RISK MANAGEMENT UNDER THE CARTAGENA PROTOCOL ON BIOSAFETY: SUBMISSION OF INFORMATION AND CALL FOR EXPRESSION OF INTEREST

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Information	Living modified organisms containing engineered gene drives	Living modified fish
<p>a) Experience in undertaking risk assessment of living modified organisms containing engineered gene drives and living modified fish (detailing how and for which cases); or else, lack of experience in doing so;</p>	<p>Malaysia has no experience in conducting a risk assessment for LMO containing gene drives</p>	<p>Malaysia has experience in conducting five risk assessment of living modified fish that is in contained use and for the purpose of research and development.</p> <p>The assessments were based on:</p> <ul style="list-style-type: none"> (i) Risks to the health and safety of humans from the activities associated with genetic modification; (ii) Risks to the health and safety of humans and animals from any unintended release of the living modified fish (iii) Risks to the environment from any unintended release of the living modified fish; (iv) Risk management plans undertaken to prevent, reduce or control the risks and adverse effects associated with the proposed contained use activity;

		<p>(v) The emergency response plan in the case of an occurrence of an undesirable effect observed during the contained use activity or any unintended release.</p> <p>Malaysia has not conducted a risk assessment for any release of living modified fish yet.</p>
<p>b) Challenges experienced or foreseen in undertaking risk assessment</p>	<p>Challenges foreseen for conducting a risk assessment for LMO containing gene drive</p> <p>a) Accuracy in predicting the actual consequences on impact to the local receiving environment as it permanently alters life forms and is possibly irreversible</p>	<p>Challenges experienced in conducting a risk assessment for contained use are :</p> <p>a) Risk management for prevention of unintentional release as in the form of embryos, sperm, eggs or larvae of living modified fish</p> <p>b) Ensuring proper water management into sewerage</p> <p>c) Deciding on how to handle risks associated with long term storage of living strains of favorable breeding lines for future use in research</p> <p>Challenges foreseen for conducting a risk assessment for open release are:</p> <p>a) Understanding/predicting the adaptability of the LM fish to the general aquatic ecosystem</p>

		<p>b) Possibility of the LM fish becoming an invasive alien species</p> <p>c) Risk assessment will be carried out on a case-by-case basis, meaning that the required information may vary according to the species of LM fish concerned, the introduced genes and the potential receiving aquatic ecosystem.</p>
<p>c) Specific needs (if any) to properly undertake risk assessment of living modified organisms containing engineered gene drives.</p>	<p>Proper understanding of the technology involved, to enable a step-wise risk assessment</p>	