

The Role of the IAEA Marine Environment Laboratories in Supporting Regional Seafood Safety

Ross A. Jeffree*

Florence Boisson

IAEA Marine Environment Laboratories
Monaco, MC 98000

*E-mail Address: R.Jeffree@iaea.org

The IAEA Marine Environment Laboratories (MEL), Monaco, has a long history in supporting RCA marine technical cooperation projects in the region, particularly with regard to impacts of human activities in the coastal zone. There has been an emphasis on applications of nuclear and related techniques to pollutants and their socio-economic impacts on natural resources. A lead activity was a joint UNDP/RCA/IAEA project with a component on "Nuclear Techniques to Address Specific Harmful Algal Bloom Concerns" involving seven countries that was successfully completed and served as a model for similar regional and national Technical Cooperation projects, in Africa and in Latin America. This presentation will give an overview of more recent RCA activities and positive outcomes associated with these regional projects and their progeny with particular relevance to seafood safety, as summarised below.

Because of the severity of the impacts of HABS toxins accumulated in molluscs on seafood safety, particularly in the Philippines, MEL continues to support the Philippines Nuclear Research Institute that was awarded the status of IAEA Collaborating Centre for HABS (with a significant participation of the Philippines Marine Science Institute). This centre continues to develop research on the transfer of PSP toxins in the marine food chain, in collaboration with MEL.

Contaminants in regional seafoods can also have adverse socio-economic effects, in relation to their suitability for commercial trade and international export. To address some of these issues MEL initiated a Coordinated Research Project (CRP), entitled, 'Applications of Radiotracer and Radioassay Technologies to Seafood Safety Risk Analysis. This CRP was started in 2007 and includes regional representatives from China, Japan, the Philippines, Thailand and Vietnam. It has the following objectives; to identify the needs for more scientific data on the bioaccumulation of contaminants in seafoods through linkages with international standardisation bodies (CODEX ALIMENTARIUS and the Joint Expert Committee on Food Additives, JECFA), and to generate data



that are relevant to management of contaminants in seafoods with the application of radiotracer, radioassay and related nuclear technologies. This CRP has also focused on particular contaminants of regional concern, with a view to supporting enhanced consumption, trade and export.

With regard to future support to the region, the role of IAEA MEL is expected to move towards a more 'virtual' mode of operation, with decentralized country and regional based networks of scientific institutions that are likely to become the main source for technology transfer and capacity building. To support this emerging role MEL has begun to the development of the Marine Radioecology Laboratories International Network- MARLIN- with key partners from the region. Its objectives include the coordination of international research efforts in marine radioecology and its applications and the support of laboratories in developing MS with their efforts in seafood safety and coastal zone management.