Investing in Knowledge Sharing and Human Capacity Development Through Education and Lifelong Learning in Fisheries and Aquaculture Sectors in Africa

The newly adopted Sustainable Development Goals (SDGs) are directly relevant to aquatic sciences and aquaculture and to the sustainable development of the sector. For instance, SDG 4 aims to “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”. The rapid growth of the aquaculture industry has been enabled through developing knowledge and application of new scientific and technological innovations supported by private and public investments. While there are numerous initiatives directed at accessing, managing, documenting, publishing, communicating and disseminating research information and data, the present scale of ‘knowledge management’ is insufficient to achieve wide accessibility and use, particularly in Sub-Saharan Africa. Paradoxically, too much potentially valuable knowledge produced by committed researchers languish in libraries, unused by society; and too many of society’s greatest needs for new knowledge remain relatively unexplored by researchers. There is a growing appreciation within the aquaculture sector of the need for more responsive, flexible and collaborative approaches to learning and accreditation of learning that properly respond to the needs of the industry and individuals. In this paper, we review recent initiatives to promote sustainable aquaculture development through improvements in education and training capacity, and innovations in the use of new web-based technologies, with emphasis on the use of digital e-learning tools. At the broad level, we present three development trends likely to shape the sector: educating for global competencies; knowledge sharing via the use of Web 2.0 technologies and open learning resources; and re-emergence of flexible and lifelong learning. The paper presents various digital e-learning platform tools and websites that are expected to positively change aquaculture education and knowledge exchange. Finally, we offer four recommendations to increase aquaculture knowledge exchange and human capacity building in Africa: (1) promote coordinated networking and mobility in aquaculture education and research through long-term collaborative institutions; (2) develop new generic skills and competencies approaches; (3) continued professional development via e-learning and other innovative approaches; and (4) position lifelong learning in aquaculture studies.