Using Remote Sensing and GIS Application for the Develop Aquaculture in Nasser Lake

Wagdy A. Kawi A. Ashry
CAPMAS

Paper Abstract: Poverty is a socio-economic scourge raging at varying degrees throughout the Arab countries. The general trends that can be identified using aggregate information are useful for evaluating and monitoring the overall performance of Arab world.

Poverty refers simply to lack of resources or abilities of households or persons to meet their current needs. This means that poverty relies on the individuals or households resources in relation to their needs.

Furthermore the low levels of income, poverty usually involves hunger, illiteracy, epidemics and the lack of health services or safe water. Such multi-dimensional nature of poverty leads to a set of indicators that are used in measuring poverty and so on to analyze it. Poverty measuring and analysis often based on national level indicators that are compared over time. Consequently, a holistic planning, implementation and control process is needed. This should include all layers of government, non-government, donor agencies, and global organizations with the research community on one hand, and a combination of historical, economical, sociological, and spatial viewpoints on the other hand.

The spatial perspective, which is the main objective of this paper, using spatial technologies have benefited the poor people mostly indirectly, by generating improved information for research, policy analysis, planning, and monitoring. The researcher illustrates the options and limitations of using disaggregated poverty maps for targeting pro-poor aquaculture development.

The researcher review the current state of the science with respect to remote sensing applications in Lake Nasser for aquaculture, including site location, aquaculture facility mapping, market proximity analysis and associated roadway infrastructure, epizootic mitigation, meteorological event and flood early warning, environmental pollution monitoring, and aquatic ecosystem impact, primarily for Nail tilapia and Catfish.

Also the potential of technology transfer from the fisheries research centers in Egypt. The potential for multi-sensor remote sensing deployment to support sustainable fish production in these environments and subsequently in other African countries is evaluated.