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RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

Title: Spreadsheet tool for computing levee pond excavation costs for developing countries

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Abstract: The levee pond is by far the most popular pond type for fish production. The specific object of this study was to develop a tool enabling extension, nongovernmental organization (NGO) agents, contractors and engineers in developing countries for computing levee pond excavation costs. We developed a spreadsheet-based computational tool in English and Spanish on the Microsoft Excel[®] platform. Knowing the original land slope and desired pond volume, one may compute excavation amounts that provide an acceptable cut-fill estimates based on a comparison with AutoCAD Civil 3-d[®]. The model computes projected costs in user-selected currency. Guidelines are provided for establishing pond bottom elevations and achieving the desired water depth. The model is relevant for small to medium sized levee ponds customarily used in aquacultural production in developing countries.

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