



THE POTENTIAL IMPACTS OF CLIMATE CHANGE ON FRESHWATER FISH, FISH CULTURE AND FISHING COMMUNITIES

Edison D. Macusi^{1,*}, Neil Angelo S. Abreo², Ginalyn C. Cuenca², Cyril Tom B. Ranara³, Lemuel T. Cardona³, Michael B. Andam³, Grace C. Guanzon³, Robert E. Katikiro⁴, K.H.M. Ashoka Deepananda⁵

¹Aquaculture and Fisheries Group, Wageningen University, P.O. Box 338, 6700 AH, Wageningen, The Netherlands

²Davao Medical School Foundation, Inc. Davao City, Philippines

³Davao Del Norte State College, New Visayas Panabo City, Philippines

⁴Mnazi Bay-Ruvuma Estuary Marine Park (MBREMP), P.O.Box 845 Mtwara, Tanzania

⁵Department of Fisheries and Aquaculture, Faculty of Fisheries & Marine Sciences & Technology, University of Ruhuna, Matara 81000, Sri Lanka.

*Corresponding author: edmacusi@gmail.com

ABSTRACT – The decline of global fish production in many parts of the world are widely documented as fishing down the foodweb or overfishing, together with climate change, this may lead to further decline of fisheries production and food insecurity. In this paper, the authors discussed climate change impacts on freshwater ecosystems which are predicted to be diverse and widespread affecting change in temperature, water flow and quality and hydrological regimes, and changes to the biodiversity of both endemic and non-native species. Climate change may also exacerbate existing problems affecting freshwater ecosystems and has significant negative impact on freshwater fisheries. Since fish are poikilothermic animals strongly affected by ambient water temperature, the effects of climate change on their physiology and behavior will be particularly pronounced, in particular to fish growth, metabolism, food consumption, reproductive success and habitat range. Inland fisheries and aquaculture, which forms an integral part of many rural livelihood systems will be severely impacted by drought, changing water levels and flooding events. These changes need focused strategies to mitigate and cushion the impending impacts of a climate change. A general strategy in conservation efforts would be enhanced protection of watershed areas, a combination of government and community-based partnerships in implementing protection measures of natural habitats such as rivers, lakes, marshes, and other coastal habitats as anticipatory measures on possible impacts of climate change.

Keywords: climate change, freshwater fisheries, fishing communities, Philippines, typhoons



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