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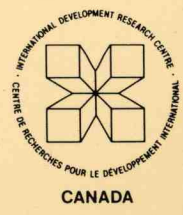
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Reservoir Fishery Management and Development in Asia

Proceedings of a workshop
held in Kathmandu, Nepal,
23-28 November 1987

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ABSTRACT

This publication presents the results of an IDRC-funded workshop held in Kathmandu, Nepal, 23-28 November 1987. Representatives from 15 countries reviewed the status of reservoir fishery research in Asia under the following topics: existing fisheries, limnological aspects, biological and resource aspects, management aspects, and culture. Papers were presented on these topics, but the discussion sessions were the main element of the workshop. Summaries of these discussions as well as a series of general recommendations that were generated during the final discussion are presented in this book. The potential for increased fish production in reservoirs and the need for early involvement of fisheries scientists in the planning and preimpoundment studies before dam construction are emphasized.

RÉSUMÉ

Cet ouvrage présente les résultats d'un atelier financé par le CRDI à Katmandou, au Nepal, du 23 au 28 novembre 1987. Des représentants de 15 pays ont examiné l'état de la recherche sur l'élevage du poisson en étangs en Asie, en particulier les aspects suivants : les systèmes actuels, les aspects limnologiques et biologiques, les ressources, la gestion et l'élevage. Des exposés ont été présentés sur ces sujets, mais les discussions ont été l'élément le plus important de l'atelier. L'ouvrage présente également un résumé des discussions ainsi que les recommandations générales issues de ces discussions. On met l'accent sur la possibilité d'augmenter la production de poissons en étangs et la nécessité pour les ichthyologistes de participer très tôt aux études de planification, notamment de la mise en étangs du poisson, qui précèdent la construction d'un barrage.

RESUMEN

Esta publicación presenta los resultados de un taller auspiciado por el CIID en Kathmandu, Nepal, del 23 al 28 noviembre de 1987. Representantes de 15 países analizaron el estado de la investigación sobre pesquería asiática en embalses desde los siguientes ángulos: pesquería existente, aspectos limnológicos, aspectos biológicos y de recurso, aspectos de manejo y cultivo. Las ponencias versaron sobre estos temas, pero las sesiones de discusión fueron el principal elemento del taller. Este libro ofrece los resúmenes de estas discusiones, así como una serie de recomendaciones generales emanadas de la discusión final. Se subraya el potencial para incrementar la producción pesquera en embalses y la necesidad de una participación temprana de los científicos del área en la planificación y los estudios de apropiación que anteceden a la construcción de represas.

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ABSTRACTS

The Concept of Reservoir Fisheries Management

P. Suwignyo, Faculty of Fisheries, Bogor Agriculture University, Bogor, Indonesia

Reservoirs are open-water ecosystems, and the most practical and efficient fisheries exploitation strategy to be developed is the so-called "self-sustaining" pattern. This is characterized by a balance between the carrying capacity of the reservoir and its utilization pressure. Fisheries management of reservoirs need to cover aspects of reservoir zone (zonation) management, fisheries exploitation patterns, and reservoir conservation policies. Reservoir zone management is a new concept that is being developed in some Indonesian reservoirs and is showing positive impact on all reservoir uses, including fisheries management. The organizational structure of reservoir fisheries management has received little attention in the region. A more concentrated effort is needed to bring about an effective coordination between all reservoir users.

Fisheries Management Strategies in Two Reservoirs in the Philippines

R.D. Guerrero III and E.V. Manalili, Fisheries Research Department, Philippine Council for Agriculture and Resources Research and Development, Los Baños, Laguna, Philippines

Fisheries management strategies for two reservoirs in the Philippines with contrasting management purposes are discussed. Caliraya Reservoir, in the southern province of Laguna, was constructed in 1939 for hydroelectric power generation. It has a surface area of 1160 ha. Nile tilapia (Tilapia nilotica) represents about 76% of the fish catch; largemouth bass (Micropterus salmoides), 12%; common carp (Cyprinus carpio), 7%; and mudfish (Ophicephalus striatus), 5%. Nile tilapia and common carp are stocked by the Philippine Bureau of Fisheries and Aquatic Resources to enhance the catch of about 100 fishermen. Largemouth bass is stocked for recreational fishing. Caliraya Reservoir is the only inland body of water in the Philippines where sport fishing is being promoted. Magat Reservoir was built for irrigating ricelands in northern Luzon. It is the second-largest reservoir in the Philippines, with a surface area of 4460 ha. The fisheries of this reservoir is the most productive in the country, with a total catch of 6720 t in 1986. Floating cages, with sizes ranging from 4 m x 4 m to 12 m x 14 m, are used for commercial cage culture of Nile tilapia. By 1986, 785 fish cage units, with a total area of 56.28 ha, were being operated by 212 fish farmers.