SIS in Polyculture Ponds

What are SIS?

SIS or small indigenous species are small fish inhabiting local water bodies of Nepal that contain high levels of vitamin A, calcium, iron, and zinc when compared to carp, and are favored for consumption. They include pothi (*Puntius sophore*) and dedhuwa (*Esomus danricus*).

Pothi

Dedhuwa

Benefits of SIS-carp polyculture systems:

Adding SIS to carp ponds increases efficiency, economic returns, and nutritional well-being for farmers. SIS are known to breed in aquaculture ponds, which can provide a reliable source of these species for household consumption. They consume natural feeds from the pond and do not compete with carps for food. Their production adds to the production already obtained from carps, and they can be harvested and consumed regularly through the year.

SIS harvest

Cooking SIS

Intentionally stocking SIS has not been shown to increase SIS harvest in ponds that are connected to local water supplies. SIS can colonize ponds naturally, and have been found in many ponds where they were not stocked. They can enter utilizing supply pipes and canals. However, ponds filled with well water may need stocking to produce a SIS population in the ponds.

Bird predation:

For SIS in ponds as well as carp polyculture, bird predators can be a problem in fish production. More isolated ponds often have less production than those closer to areas of regular human activity, and this appears to be directly linked to these more remote ponds having larger predation on fish by birds. Using some method to keep birds out of ponds can be an effective tool to increase fish production and survival.

Seining carp pond

Selling carp in local markets

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