

No. J-11017/40/2011-MGNREGA (UN)
Government of India
Ministry of Rural Development
(Mahatma Gandhi NREGA Division)

Baba Kharag Singh Marg, New Delhi
Dated the 23 November, 2011

To

The Principal Secretary/Secretary
Department of Rural Development
All States/UTs

Sir/Madam,

It has come to the notice of the Ministry that in several States/UTs farm ponds/talabs have been constructed without an inlet and an outlet. This has resulted in massive siltation of farm pond/talab and erosion of the banks affecting the overall quality and durability of the structure.

In this context, it is suggested that an inlet with silt trap and outlet, based on sound engineering design is constructed for the overall durability of the ponds/talabs. Some suggestions for design of inlet and outlet are given below:

INLET: The inlet should be designed as chute spillway for conducting the runoff in to the pond in a controlled manner. The entry section can be designed as a rectangular broad crested weir. Since the velocity of runoff is accelerated along the side slope of the pond, the width is contracted at 1m below the top level of the pond and continued at the same width thereafter.

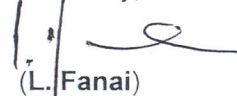
OUTLET: The outlet is constructed as a rectangular or square channel. This outlet position will be little lower (15 to 20 cm) than the elevation of the inlet to avoid back flow of water. The discharge capacity of outlet can be assumed to be half as that of the inlet capacity as peak rate of runoff.

SILT TRAP: A silt trap of suitable dimension should be created in the watercourse just near the entrance of the inlet to check the silt load entering the pond. The length of such silt trap can be slightly greater than the width of the water course and the depth may be about 0.6 to 0.75 m.

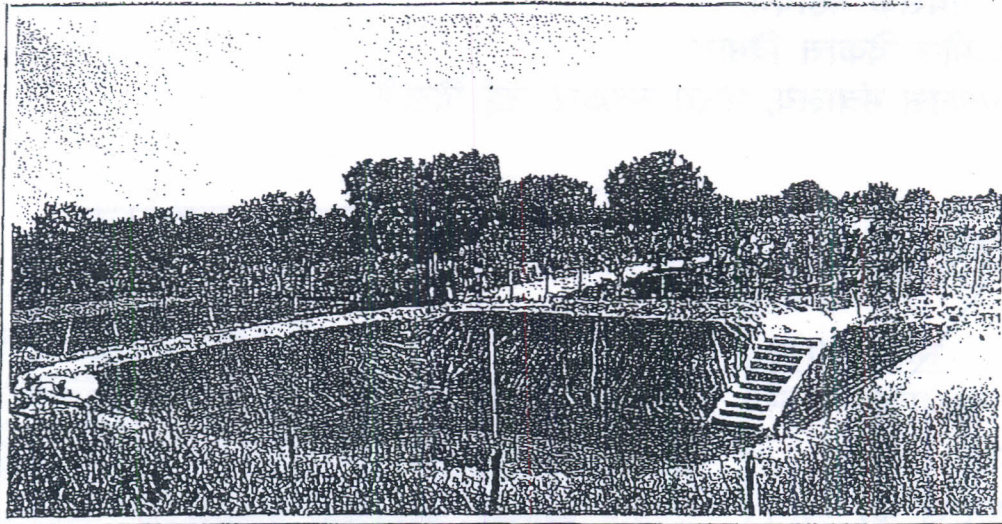
CLEANING SILT TRAP: The silt accumulated in the silt trap should be removed periodically and preferably as and when it gets filled up after a few runoff events.

A typical photograph of Farm Pond with inlet and outlet and a typical drawing of inlet with silt trap and out let are enclosed herewith for reference. States may consider adopting principles enunciated in this communication

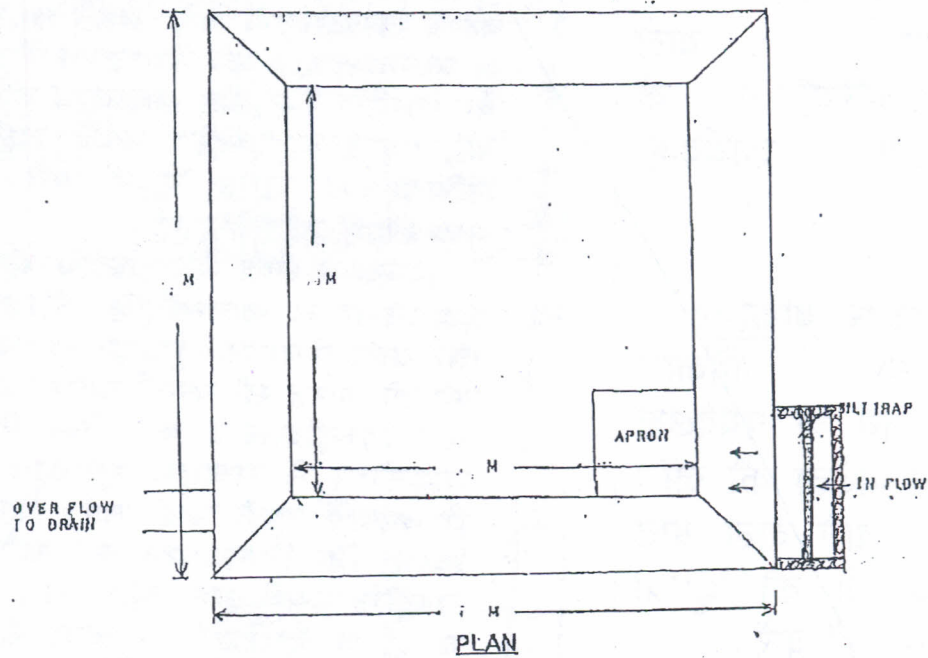
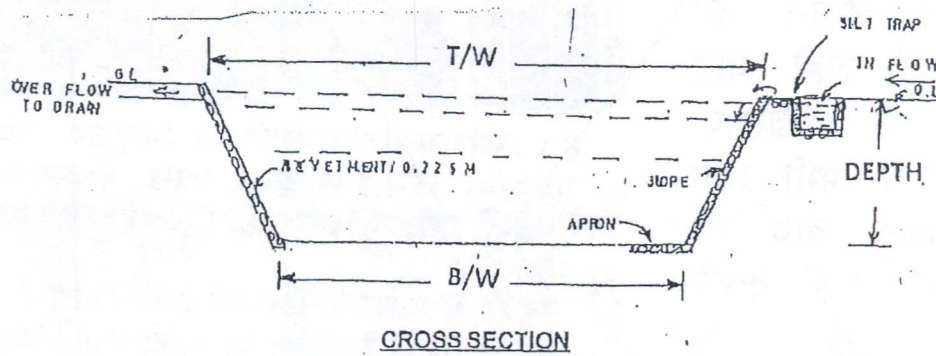
Yours sincerely,



(L. Fanai)
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TYPICAL PHOTO: FARM POND WITH INLET & OUTLET



TYPICAL DRAWING OF POND WITH SILT TRAP
(NOT TO SCALE)