

Oeverbescherming kindershuis Duhabi

During my last year's visit to the Duhabi children home I discussed the pond bank problem and protection solution with your local engineer.

First of all we came to the conclusion that the problem is caused by rain water which, mainly during the monsoon period, falls on the premises of the Duhabi home. As the soil on the premises is very porous, this water sinks into the soil and flows to the pond. On its way into the pond it drags soil from the bank into the pond. During my visit it had been raining a lot the day before I arrived at Duhabi and so at that time we could clearly see this happen while I was there.

Your engineer and me came to the conclusion that the solution as initially proposed by your engineer was a good solution and just needed some small adaptations to still provide a way out for the water. Without a way out for the water other problems might occur. E.g. the premises might become very wet and when the water level in the pond would be low at the beginning of the monsoon rains the water coming from the premises might push the concrete bank protection out into the pond.

So in order to provide a way out for the water we agreed to implement a layer of gravel under the concrete and PVC pipes at various levels from within the layer of gravel through the concrete into the lake. Such pipes shall be installed at every ± 3 m along the bank.

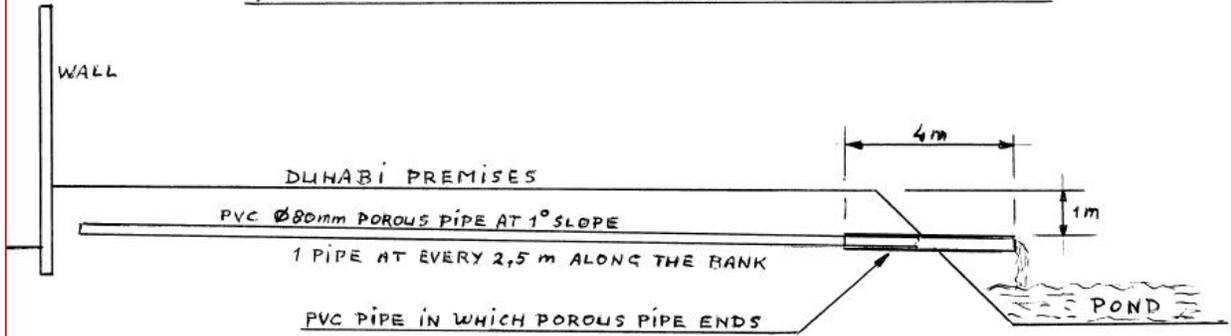
I also discussed this solution with experienced civil waterworks engineers in Holland and they confirmed that solution will solve the problem. Attached please find the drawing, initially made by engineer Indra Kant JHA which I have revised to show above solution. Another simple solution is to only provide the Duhabi premises with drainage pipes running from near the wall opposite the pond down to the pond and extended with a few meters of solid PVC pipe over the pond to make sure that the water being drained does not fall on the bank of the pond. I would advise to install such pipes at about every 2.5 to 3.0 meter along the bank of the pond.

This is a solution which farmers in Holland often use on their land as it is relative cheap material, but it is a lot of work to install the pipes. I expect that this simple solution will not fully stop the caving of the banks, but will reduce it considerably. Attached please find my simple solution drawing for this proposal. As I am not sure if this type of drainage pipe is available in Nepal, I have also attached some photos of such piping, a photo which shows the principle and some photos showing people installing such piping manually.

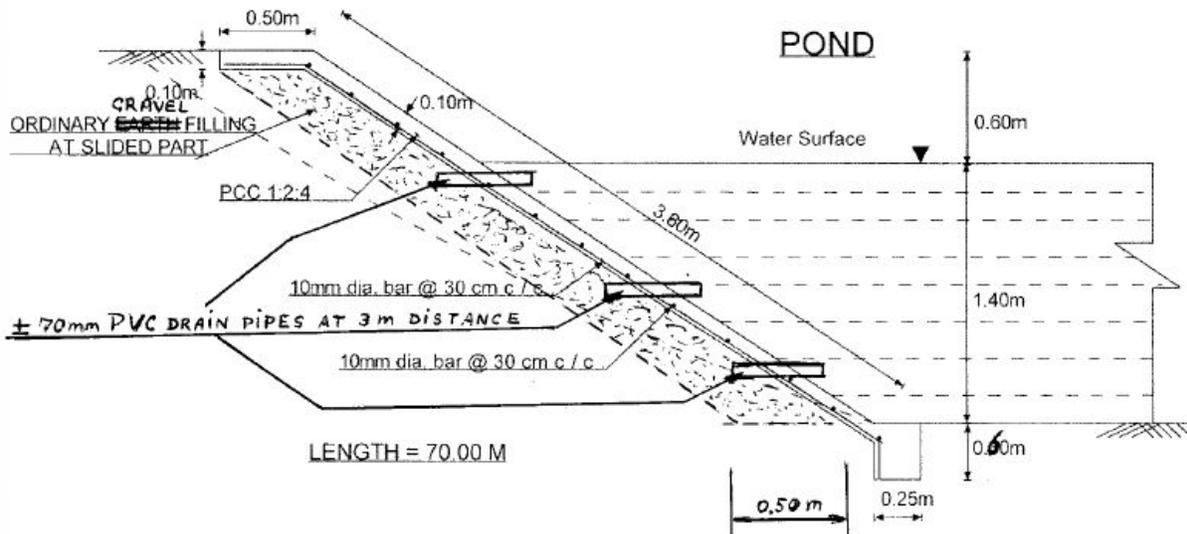
Wish you success to solve this problem.

Best regards,
Marc Rademakers

SIMPLE SOLUTION TO DRAIN RAIN WATER
IN ORDER TO REDUCE THE CALVING OF THE POND BANK



NISAHAYA BALBALIKA SEWA ASHRAM.
DUHABI-7, SUNSARI, KOSHI ZONE, NEPAL.



SECTION OF POND'S BANK PROTECTION WORK.
 SCALE - 1 : 25

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 19-5-2011

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