

## IAH network on “Coastal aquifer dynamics and coastal zone management” QUESTIONNAIRE

IAH national committees, IAH members and non members from all around the world involved in SWI and SGD research and management are kindly asked to fill in the questionnaire in this page with as many details as possible.

A world database will be set up and made available, with basic coastal aquifer main characteristics.

We expect to gather standard and comparable information on the knowledge level and hopefully the state of the art of the research on SWI and SGD, and coastal aquifer management methods adopted around the world

1)	Location of aquifer (country, more specific location):	Coastal area of Bangladesh, South Asia
2)	Reported by:	M. Faneca Sanchez, G.M.C.M. Janssen and G.H.P. Oude Essink, M. Vogels, K. Bashar
3)	Type of medium (karst, porous, fracture)	Porous
4)	Type of aquifer (phreatic or confined)	Aquifer system consisting of a shallow aquifer (35-120 m) and a deep aquifer (150-340m)
5)	Main lithology - (e.g. gravel, sand and clay)	Clay, gravel, silt, medium and coarse sand
6)	Hydrochemistry: fresh or saline	Fresh and saline
7)	Saltwater intrusion: lateral from sea or lakes - upconing	Lateral intrusion from sea and saline surface water bodies, upconing
8)	Aquifer geometry: hydraulic characteristics	0.00001-15m/d
9)	Aquifer parameters: storage - annual water pumping - (in MCMA - millions cubic meters, annually)	Annual average rainfall is 2000 mm of which approximately 75% occurs during the monsoon season (June to September) and almost 90% occurs in the wet period (April to September)
10)	Depth of aquifer (water level and bottom) - water level 5-30 m - aquifer depth - 50-200 m	Shallow aquifer: water level 1-10m and depth: 35-120 m Deep aquifer: water level and depth: 150-340 m
11)	Major chemistry (anions - ?; Cations - ?):	
12)	Major salinity sources:	Sea, deep salt waters, storm surges
13)	Population:	Surface water is polluted and partly saline, so the population relies on groundwater
14)	Aquifer status: special features - e.g. thermal springs, major faults, ...	
15)	Investigation methods - e.g. water level measurements, EC (electrical conductivity profiles), TDEM (geophysical),	Modelling
16)	Numerical hydrological modeling, chemical and isotopic methods, age determination, IR survey, seepage meters (for Submarine Groundwater Discharge, SGD)	3D numerical variable-density groundwater, transport model
17)	Monitoring methods applied and duration - water level measurements, EC (electrical conductivity profiles - seasonal)	The first activities were carried out in April 2013, the project ended in gen-15
18)	Management methods:	The SWIBANGLA project aims to gather the knowledge on the groundwater system and its dynamics in order to make suggestions on the improvements of the Water Safety Plans
19)	Aquifer management actions:	
20)	Identification of existing or potential problems:	In Bangladesh, saltwater intrusion is threatening drinking water resources on a large scale and is therefore confronting the population with a serious health issue. Another important problem is that salinity limiting the productivity of agricultural crops, and industrial activities.
21)	Annexes:	
22)	Observations:	