



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	2013_BJAST_6353
Title of the Manuscript:	PERIODIC IMPACT ASSESSMENT AND MAINTENANCE OF GROUNDWATER QUALITY – A CHALLENGE FOR AGRICULTURE

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
This paper has been modified as required but insert the following points : 195 – what means GF if it is unit please use the SI units 207 – can you check the column “total” in table 3 there is some wrong results 210 – can you add the column “percentage” in table 4 to facilitate the comparison 221 – can you add the well number in the figure 3 so we can identify the location of sample 257; 259 – Add “w” to EC as you began before 258, 347, 361, 365, 368 – Please I want to know if there is any difference between “usable” and “useable” 268 – please use the SI units 295 – You forget something isn’t it? If not what means “i.e.”? 307, 308 – there is redundancy, can you delete this sentence?	195- Sir, the units have been mentioned. For your kind information, GF is elaborated here: The groundwater footprint (GF) is defined as $GF=A[C/(R-E)]$, where C, R and E are respectively the area averaged annual abstraction of groundwater, recharge rate, and the groundwater contribution to environmental stream flow, all in units with dimensions of length/time, such as m²/d. A (in units of length², such as m²) is the areal extent of any region of interest where C, R and E can be defined. The groundwater footprint is essentially a water balance between aquifer inflows (R) and outflows (C and E) which can be derived from observations and/or model output. C is derived directly from the use of groundwater at the scale of interest although actual groundwater abstraction is often poorly known. R is the long-term natural areal flux into the system plus the additional recharge from irrigation, and can be derived from geochemical tracer methods or hydrologic models. E is the quantity of groundwater that needs to be allocated to surface water flow to sustain ecosystem services, which is most important during low flow conditions. Thus, the groundwater footprint method emphasizes the contribution of groundwater to the environmental requirements during low flows, although natural stream flow variability is also essential to maintaining the environmental integrity of surface water systems. 207- Table has been fixed 210- Done 221- Done 257; 259: Done 258, 347, 361, 365, 368: both have the same meaning 268: Done 295: Fixed 307, 308: Done