

***Interactive comment on “GIBSI: an integrated
modelling system for watershed management –
sample applications and current developments”
by R. Quilbé and A. N. Rousseau***

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Dear reviewer #2

Thank you for your relevant comments. A revised manuscript will be accordingly to the reviewer comments.

As suggested, the article has been shortened, three sample applications have been removed, and the discussion has been further developed.

Answers to your general comments :

- A short discussion has been added about strengths and limitations of GIBSI, and more generally of the use of a DSS, for each application as well as in the discussion

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section. The main limitations of current DSS are already discussed in the conclusion, especially regarding the issue between performance and complexity of DSS.

- The results of simulation have to be interpreted in a relative way. When calibration is not satisfactory, we have to make the assumption that the bias is the same for reference scenario and for management scenario. So the effect, when expressed as a percentage decrease or increase, still can be interpreted. The discussion has been developed in section 3.2, and sentences have been added in sections 2.2 and 2.4.

- Until now, all GIBSI applications have been performed within a research program framework, with management oriented objectives, but results have not been used by stakeholders to guide water resource management yet. However, it is in the process and then feedback from stakeholders will be very interesting and useful.

- Right. Some samples applications have been removed and the discussion has been further developed.

Answers to your specific comments :

#1: By replacing all forest (initially 71% of the watershed land use) by bare soil, which consequently increased from 1% to 72%. Anyway, this section has been removed.

#2: Right. But in this case, all the forest has been replaced by bare soil. Anyway, this section has been removed.

#3: This section has been removed

#4: p1314 lines 15-18: These are simulation results. Changes in land use have direct consequences on hydrology and this is the way they are taken into account by the model: change in some parameters values such LAI, Manning's roughness coefficient, depth of the root system.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 4, 1301, 2007.

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