

Interactive comment on “How Alexander von Humboldt’s life story can inspire innovative soil research in developing countries” by Johan Bouma

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“How Alexander von Humboldt’s life story can inspire innovative soil research in developing countries” by Johan Bouma

This manuscript is a well-written summary connecting a wide experience in fundamental and applied soil science, well connected to society, with the open-minded scientist of old Alexander von Humboldt. Although the Homo Universalis does not exist anymore since long, Von Humboldt’s work still breathes its legacy. Bouma makes a plea for a modern version of it under the motto “Get out of your box”, which is motivated by the threat of a societal divide between scientist and part of society leading to phrases like

“alternative truths” etcetera. He also indicates some adverse effects of the current scientific rat race, in the so-called developed countries, aimed at maximizing performance indicators mostly based on amounts of publications, which may actually prevent scientists to solve problems that are not “new”. These are very penetrating observations and conclusions to my opinion. The author then illustrates, by aggregated case studies, how disciplinary and transdisciplinary research in his scientific environment helped to deal with societal relevant soil-related problems. Finally he comes to advices that allow better connection between society and (soil) scientists in the developing world.

My comments are limited to the below suggestions for improvement and a few questions.

- P.3,L.27: Can you add an example of such “issue”?
- P.4,L.12-13: Oops. Strong statement.
- P.4,L.22-23: Perhaps formulate this more like an observation from your own research environment as this chair group does not exist anymore at present . You can take credits here.
- P.5,L.13: “potential” or “risk”?
- P.5,L.17-19: Please indicate what the Stein et al. (1988) study contributes to the aggregated case for rice yield improvement.
- P.6,L.5-6: Can consequences for management of the Minh et al. studies be added to make the aggregated case more complete?
- P.7,L.22: Yield response > better “yield variation”. If it is a response then shouldn't there be 100% explaining power?
- P.9,L.10: Was not so clear to me. Perhaps adding “to illustrate the added value by soil data when collected” would help.
- P.9,L.29. The sentence ending with “new research” brings in an issue I think. Many

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scientists are driven by a desire to develop new methods, which provides better publication possibilities. Should scientists be re-educated not to desire this?

- P.10,L.11: I thing that geographers are more than data providers and also play an important role in identifying soil-landscape relations.

Typographical

- It may be the pdf layout but it seems that at some places <spaces> are missing near comma's or dots.

- P.3,L.15: “von Humboldt. As” > “von Humboldt as”?

- P.5,L.7 remove dot after “needed”

- P.7,L.29: finca's > Finca's like above

- P.9,L.19: “recognized”

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