

Interactive comment on “Soil Conservation in the 21st Century: Why we need Smart Intensification” by Gerard Govers et al.

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This is a very well written manuscript that makes a plea for a smart intensification of agriculture to allow for effective soil conservation in the 21st century. One may argue it comes close to an opinion paper rather than a research or review paper, but it is consistent in its reasoning and it is generally well backed up by references and some data. I largely agree with the reasoning of the authors and I think it is well worth to publish such a message. But clearly the limitation is that the piece is largely qualitative as is illustrated by Table 1 and Figure 1. I think the authors should emphasize that Figure 1 is illustrative and not based on any data – if that is not true the authors must indicate the basis for their ‘quantities’. Also, some kind of definition of Smart intensification is needed: do we really need such term, or would sustainable intensification be equally good? Please no more confusing terms than strictly necessary!

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Other than that, I have no reservation to recommend the manuscript for publication after minor revisions:

1. I suggest to add to the title 'of agriculture' and consider to substitute smart by **sustainable** 2. The abstract is rather vague and general. It would be good to make it more specific in its conclusions. 3. Line 45: important => **sizeable** 4. Line 90: quantities per ha may be more meaningful for **readers**. 5. Line 101: delete 'is' 6. Line 103: phosphorous => **phosphorus** 7. Line 111: takes => **take** 8. Line 112: **ITPS** in full please 9. Line 128: delete 'different' 10. Line 137: is **needed** => data? 11. Line 146: give examples of such spatial **data** please 12. Line 153-165: **Some elaboration on lateral spatial effects is justified**. 13. Line 180: delete **because** 14. Line 257-260: unclear sentence; please **rephrase** 15. Line 284-6: see more recent reviews on conservation agriculture and **tillage**, e.g. by Van Kessel and others 16. Line 330: **These** => This 17. Line 333-5: unclear sentence; please **rephrase** 18. Line 371-374: see e.g. Van Vliet et al., 2015 in Global Food Security 19. Line 387-9: FAO projects 60-70% which is probably closer to the real **number**. 20. Line 390: less => **fewer** 21. Line 421-2: please give numbers in just two **digits** 22. Line 429: of => **of** 23. Line 427-430: please check Chamberlin et al. (2014) in Food Security: clearly there are indications there is less land 'available' in **SSA**. 24. Line 450: call => **called?** 25. Line 486: full stop after the reference. 26. Line 506: delete **indeed** 27. Line 513: **inventories** => storage? 28. Line 519: **inventories???** 29. Line 523: preserver => **preserve** 30. Line 556: is problem => is a **problem** 31. Line 572: delete **be** 32. Line 602: location => **location** 33. Line 609: While it most => While it is **most** 34. Line 609: insert comma after developed 35. Line 618: people??? 36. Line 625: I do not think Foley et al. (2011) is an appropriate reference for this statement. I would rather use Zhang et al. (2015) in Nature, Lasseletta et al. in Env. Res. Letters (2014) and Sattari et al. (2012) in **PNAS**. 37. Line 629: Delete **Clearly** 38. Line 631: economical => **economic** 39. Line 632: easier => be **easier** 40. Line 637: **storsks??** Stocks perhaps? 41. Figure 1: please clearly indicate this figure is just illustrative but not meant to be quantitative. If this is not the case, then please back it up with data! 42. Table 1: it would be good to

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define poor, fair, negative, etc.

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