

## ***Interactive comment on “Ecological restoration and soil improvement performance of the seabuckthorn flexible dam in the Pisha Sandstone area of Northwestern China” by F. S. Yang et al.***

**Anonymous Referee #1**

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I have read this manuscript several times trying to understand it, trying to figure out its findings and contribution, but it has been complicated. In fact, I hardly understand the experimental design and procedures taken. First of all, the abstract must be rewritten. It is very unclear. One doesn't know after reading the abstract the experimental design neither the general results obtained. You should be more explicit and explicative. You have to explain what a SDS is, what you mean with biodiversity, how you carried out your experiment, and give real results. With regard to title and objectives. I am not really sure if this is an ecological restoration. An ecological restoration implies that the introduced species is native and previously present in the area, and after disturbing practices disappeared. Authors do not clarify if this is the case. Ecological restoration

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is a wide concept including the recovery of the entire ecosystem, in a holistic way. I would change the title to other more realistic. Objectives should be totally remade, to be realistic and explicit, and exactly depict what you aim with this experiment. You say that you aim to restore ecology. Ecology is the scientific analysis and study of interactions among living organisms and their environment. You would like to restore the food chains, increase biodiversity, restore the ecological balance of the area, etc. Use the proper term. You cannot improve soil, you would mean soil quality. You write that that you analyzed the sediment retention capacity, ecological restoration (you didn't measure ecological restoration with your experiment) and soil melioration (you just measured moisture, SOC and few nutrients) within the Pisha Sandstone area in many aspects (this is a very broad term, a very open concept. In objectives you have to be precise, so that reader clearly understands what you mean and what you designed. Understand that this objective is quite misleading, and even controversial, and does not synthesize the experiment you developed. You should also add your initial hypothesis to better explain why you develop this experiment. In general the description of the Materials and Methods is not clear. There is a lot of information owing to the complexity of the experimental design, but you should expose it in a different way so that it is clear to understand. You have different gullies, different sampling times, different sampling spots depending on the type of sample, etc. It is too much information and should be well explained. I do not really know why you selected so many gullies with SFD if you do not measure all properties in all of them. It should be easy for you and readers to select the most representative and correctly explain the evolution of the properties. I do not understand why you sampled in some dates in several SFDs, and in other dates in others. It makes the MS very difficult to understand and follow. You explain so much about the different gullies that it is not clear where did you sampled and why. Information should be more organized. It is the same with results. They are not correctly organized, and it is difficult to understand what authors mean. The fact that the experimental procedure is not clear hinders the comprehension. You should synthesize the description of the results, and make interpretation and discussion of them. There is

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not a Discussion section, a requirement of any scientific paper. You have to provide a correct interpretation of results, explaining the observed trends, behaviour, implications for the ecosystem, comparison with previous research, etc. Thus, unfortunately, owing to the facts exposed above, I cannot suggest the publication of the MS in SE.

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Interactive comment on Solid Earth Discuss., 6, 2803, 2014.

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