The contribution "A coupled approach for rainfall and land use correlation to landslide occurrence in the Esino river basin, central Italy" address scientific questions within the scope of NHESS showing the application of ID thresholds method and WSPA to identify landslide occurrence in the Esino River Basin.

I agree with the Referee 1 that the contribution is clear and well written, with a language easy to read and understand. The methods are clearly outlined and applied. The description of the data collection and the methods is good. The presentation of the results is quite good and the number and quality of references appropriate.

However, I consider that:

- The idea behind the contribution, in combining the two approaches is worth to be shown in the analysis of landslide hazards (as the Referee 1 mentioned) but the intention to combine the two approaches is not fully achieved at the end in the paper. In my opinion, the combination is still missing in the results chapter. In the conclusion chapter is mentioned that " an effective integration of the two approaches will facilitate...", but I do not see a good example here of integration (as also the title suggest ..."coupled").
- It seems that the results resumed in the abstract are not the same resumed at the end of the paper. In the abstract, it is mentioned that "the ID minimum threshold proposed in a previous study (Gioia et al., 2015) was verified", this is not further mentioned in the document. Therefore, I was wondering if this was the main purpose of the paper? To verify the ID thresholds? or to combine threshold with vegetation analyses?
- In agreement with the Referee 1, the methods used are not truly new, and the discussion of the results is too short. The second part explaining the WSPA is too short as well, if you have not read the other paper Carone et al., 2015 it is difficult to follow the explanation.
- It could be useful to mention why we need these thresholds? There is a governmental institution using them for early warning purposes, for example?
- It should be clarify from the very beginning the type of landslides that are under investigation (in agreement with Cruden and Varnes, 1996, or Hungr et al., 2013). Are they rock fall? Debris slides? Debris flows? Which type is more common in the mountains and which in the valley area? Thresholds can be different for different types of landslides also in the same area, some of them occur under short and intense rainfall, other depend more on cumulative rainfall, also taking into account the difference in geology. Landslides in clayed soils occurred not necessarily with high rainfall amount, but they are influenced by cumulative rainfall and wet soil conditions over a longer period, while landslides in more coarse and heterogeneous granular deposits occur with extremely short duration rainfall events and even with less saturated soil.
- Is important to take also into account the difference between the two rainfall episodes as you mentioned in the conclusions line 15 "the natural variability of atmospheric seasonality". Are these events chosen related to frontal activity or

convective cells, etc? This would help to understand the different amount of rainfall in the different areas.

- It would be more interesting to compare historical events (fig. 2) from the same season looking at all events in autumn-winter and those in spring in order to analyze better the thresholds.
- What about snow smelting in the mountain? It worth to take into account in this region as a possible triggering factor?

General comments

Beside the comments from the Referee 1:

- The vegetation segmentation should explained a bit longer in the introduction.
- Could you explain why were chosen the November 2013 and May 2014 events?
- Could you mention if landslides occurred in natural slopes or in artificial slopes (like road cutting) or both?
- Could be interesting to discuss if the landslide types are of the same type in the mountain and in the valley and if there is some difference in types between May and November, more in natural slopes? More debris flows? Etc.
- Introduction: line 16…mere or more?
- What it does mean "landslide triggering effects" in line 26?
- In figure 2 "main events, secondary events, minor events, single events…" are these rainfall events? or landslide events, clarify it.
- How you explain why there were many landslides in November in the mountain and only one landslide event in May even if the rainfall amount was higher?
- It could be possible to show in a figure (with the integrated approaches) the ID threshold and the results from WSPA?