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Supervisor's review to the master thesis of Ezra Haile Tadesse

Geophysical imaging of landslides in various geological settings

The topic of the presented master thesis has been chosen by the student during autumn 2018 as a further development of his own investigations in the Geological Survey of Ethiopia (GSE). A recent construction of a main road through the hilly area of Mekele in Northern Ethiopia crossed several previously undocumented landslide areas where the main road gets periodically destroyed. As an employee of the Survey the student took part in the investigation and mitigation of these landslides. He and his colleague from the GSE designed the field layout of the survey and personally acquired the data in the field. The first processing of the datasets took part in Ethiopia, before the student came to the Czech Republic to continue his studies. The goal of the thesis was to further improve the initial processing and interpretation of the already obtained datasets.

The activity of the student during his work on the thesis corresponded to the difficulties he had to face during the studies in the Czech Republic. The student has earned the bachelor degree on the university in Ethiopia and came for the master part of the studies to the Charles University. Hence, in the first part of his studies he needed to first fill the gaps in his geological and geophysical backgrounds due to differences in study systems in Europe and Africa. This first and unavoidable step was very demanding for the student. Therefore, the time he could devote to the work on the thesis was limited compared to Czech students. Due to these reasons, the data processing and consecutive steps started late and hence the thesis contains several deficiencies which unnecessarily lower the quality of the thesis (e.g. a section on data processing could dip a bit more into the details, or numerous typing errors and missing figure references could be easily corrected).

During the progress of the thesis I have met with the student quite often. During our meetings we have discussed various issues related to data processing and interpretation and also technical issues connected with presentations of results, graphic outputs, etc. The final consultations over the text of the thesis were mostly carried out using an e-mail, sending different versions of the text forth and back.

The final version of the thesis is well elaborated in certain parts (introduction and general chapters describing local settings and methodologies) whereas I think that chapters describing data processing and interpretation could go more into the details. Unfortunately, the lack of time during the final phases of the text completion did not allow the student to elaborate on these chapters more. The text of the thesis also, unfortunately, contains numerous typing errors, missing figure references and another formal issues.

To conclude - in my opinion, the thesis fulfilled all the formal requirements (the length of the thesis, proper using of referencing etc.) and hence *I recommend the thesis for the defence.*

Rejvíz, 5th September 2019

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