We would like to thank the anonymous referee for his/her careful review of the manuscript and for providing these comments and suggestions to which we respond in detail below.

Reviewer's comment	**Reply**
I suggest the authors include some brief descriptions of Extreme El Niño Events and Coastal El Niño Events to have a complete idea of their differences or impacts in the process studied.	To facilitate the understanding of these phenomena on sediment dynamics, we will describe the characteristics of these events if we have the opportunity to revise this manuscript.
Sampling: how many samples of each source were collected; how many subsamples composed the sample?	We forgot to specify these technical elements. In this study we analyzed 13 composite samples composed of 5 subsamples. We will add this information in the revised version.
Considering laboratory analysis, why did the authors choose the chemical elements described as tracing properties (Ti, K, Sr, Rb)?	The K and Rb were selected because they statistically differentiate the two sediment sources (Andean mountains and Lowland dry forests). We detail these results in section 3.3. Finally, we added Ti and Sr because they are classically used to identify detrital inputs and particle size changes in sedimentary archives (section 2.2.2). Of note, these elements (Ti and Sr) were chosen to describe the core but were not used for the sediment tracing. This will be clarified when revising the manuscript.
Sediment core dating: is this the first work which uses the relationship between E index temporal series and CT data to date a sediment core? Is the coefficient of determination obtained (0.45) acceptable for these studies? Is there a statistical significance value reported in this analysis?	The dating of this core was challenging since sediment was depleted in fallout radionuclides in this region (erosion rates are particularly high and initial radionuclide deposition was limited in equatorial regions). This approach of correlating climate data with other data measured in sediment cores for estimating age model is not new. We will give examples of previous research using this technique in the revised version. In this study the r^2 is not high mainly because we did not compare rainfall data with sediment fluxes but we used instead a less accurate monthly rainfall index. We therefore miss a certain number of rainfall events that are recorded in the core and not with this index Nevertheless, despite this R^2 of 0.45, we are able to identify the major El Niño events, which allowed us to validate the age model.
Lithology, lines 190-191: do the authors mention those main four coarse layers in the core (which coincide with the thicker) in relation to the low standard deviation value of d10, d50 and d90?	Thank you for pointing out this limitation. We will do so in the revised version.
Sediment sources, lines 204-209: are K and Rb contents reported calibrated values, as the ones mentioned in line 210 for the sediment core?	We mention here the calibrated values in the soils (lines 203-209) and in line 210 the values measured in the core. We will add information

	to avoid any ambiguity in the revised version of the manuscript.
Technical corrections	We thank the reviewer for pointing out these minor technical problems. We will address these points when revising this manuscript if we are allowed to do so.