Ecological Surveys for Sustainable Livestock Production

03 Methods: Image Analysis

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Vertical photography (near ground)

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Vertical photography (near ground)

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Vegetation mosaic induced by selective grazing of sheep; cover estimate of unpalatable species by dot screen count



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Vertical photography (low flying aircraft)

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Vertical photography (high flying aircraft)

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60 cm resolution true colour Quick-Bird satellite

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~1 m resolution true color aerial photograph of a 64 ha area located in a portion of the Yala River Basin with provisional identification of household locations (red dots).

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Previous image processed to highlight the distribution of woody vegetation cover in the image.

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Low resolution satellite imagery (Landsat)

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LandsatTM false colour image of a pilot study area in the Tessenei East local watershed, Eritrea



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First transformation of the Landsat TM image showing the probability of the presence of green vegetation (white = high; black = low)



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Second transformation of the Landsat TM image showing the probability of the presence of non-photosynthetic vegetation (white = high; black = low)



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Third transformation of the Landsat TM image showing the probability of the presence of light soils (white = high; black = low)



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Fourth transformation of the Landsat TM image showing the probability of the presence of dark soils (white = high; black = low)



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Fifth transformation of the Landsat TM image showing the probability of the presence of bare rock (granite) (white = high; black = low)



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Prediction of site productive capacity

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