

Auxiliary Material for

Stochastic assessment of climate impacts on hydrology and geomorphology of semiarid headwater basins using a physically-based model.

A. Francipane¹, S. Fatichi², V.Y. Ivanov^{2,3}, L.V. Noto¹

¹ Dipartimento di Ingegneria Civile, Ambientale, Aerospaziale, dei Materiali, Università degli Studi di Palermo, Palermo, Italy;

² Institute of Environmental Engineering, ETH, Zürich, Switzerland;

³ Department of Civil and Environmental Engineering, University of Michigan, Ann Arbor, Michigan, USA.)

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Introduction

This data set contains tRIBS land use and soil parameters used in this study. In particular, the data set contains two tables: “ts01.pdf” lists all of the tRIBS model parameters and their respective values for the land use types, while “ts02.pdf” lists all of the tRIBS model parameters and their respective values for the soil types. The parameter values were inherited from the long-term calibration and validation carried out for the Lucky Hills basin in [Francipane et al., 2012]. Tables show both the original values, obtained from either field surveys or literature, and the calibrated values. All of the calibrated parameter values fall within the range typical of the study area, as inferred from previous studies.

1. ts01.pdf, tRIBS land use parameters and their values used in this study.

1.1 Column “-”, ID of land use parameters.

1.2 Column “Parameter”, abbreviation of land use parameters used in this study.

1.3 Column “Description”, description of land use parameters.

1.4 Column “Initial Values”, original values of land use parameters, obtained from either field surveys or literature.

1.5 Column “Source”, source of original values of land use parameters.

1.6 Column “Final Values”, calibrated values of land use parameters used in this study, obtained from the long-term calibration and validation carried out for the Lucky Hills basin in [Francipane et al., 2012].

2. ts02.pdf, tRIBS soil parameters and their values used in this study.

2.1 Column “-”, ID of soil parameters.

2.2 Column “Parameter”, abbreviation of soil parameters used in this study.

2.3 Column “Description”, description of soil parameters.

2.4 Column “Initial Values”, original values of soil parameters, obtained from either field surveys or literature.

2.5 Column “Source”, source of original values of soil parameters.

2.6 Column “Final Values”, calibrated values of soil parameters used in this study, obtained from the long-term calibration and validation carried out for the Lucky Hills basin in [*Francipane et al.*, 2012].

References

Francipane, A., V. Y. Ivanov, L. V. Noto, E. Istanbuluoglu, E. Arnone, and R. L. Bras (2012), tRIBS-Erosion: A parsimonious physically-based model for studying catchment hydro-geomorphic response, *Catena*, 92, 216-231.