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Hydrology and
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Discussions



Supplement of

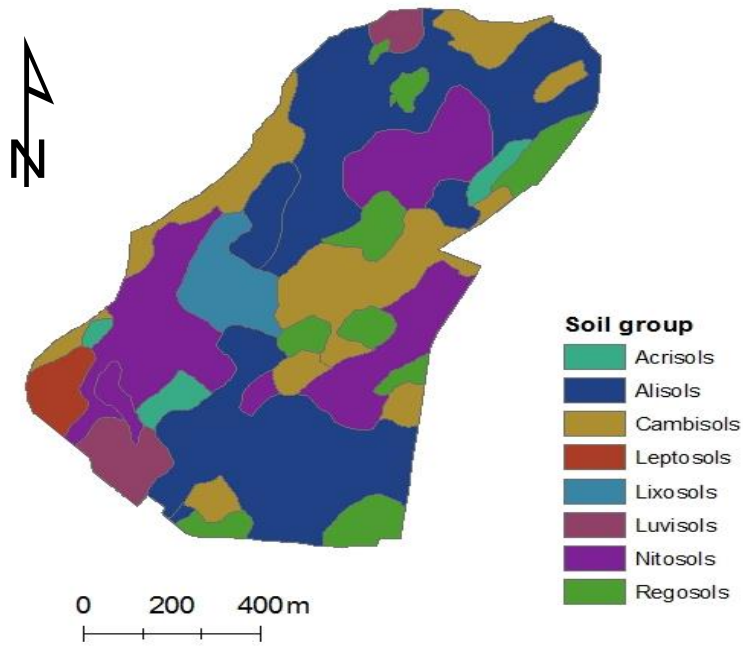
Spatial and temporal runoff processes in the degraded Ethiopian Highlands: the Anjeni Watershed

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1 **Supplementary Materials**

2 **Supplementary material A: Soil Map of the Anjeni Watershed**



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4 Figure A1. Soil map of the Anjeni watershed. Source (Zeleeke, 2000)

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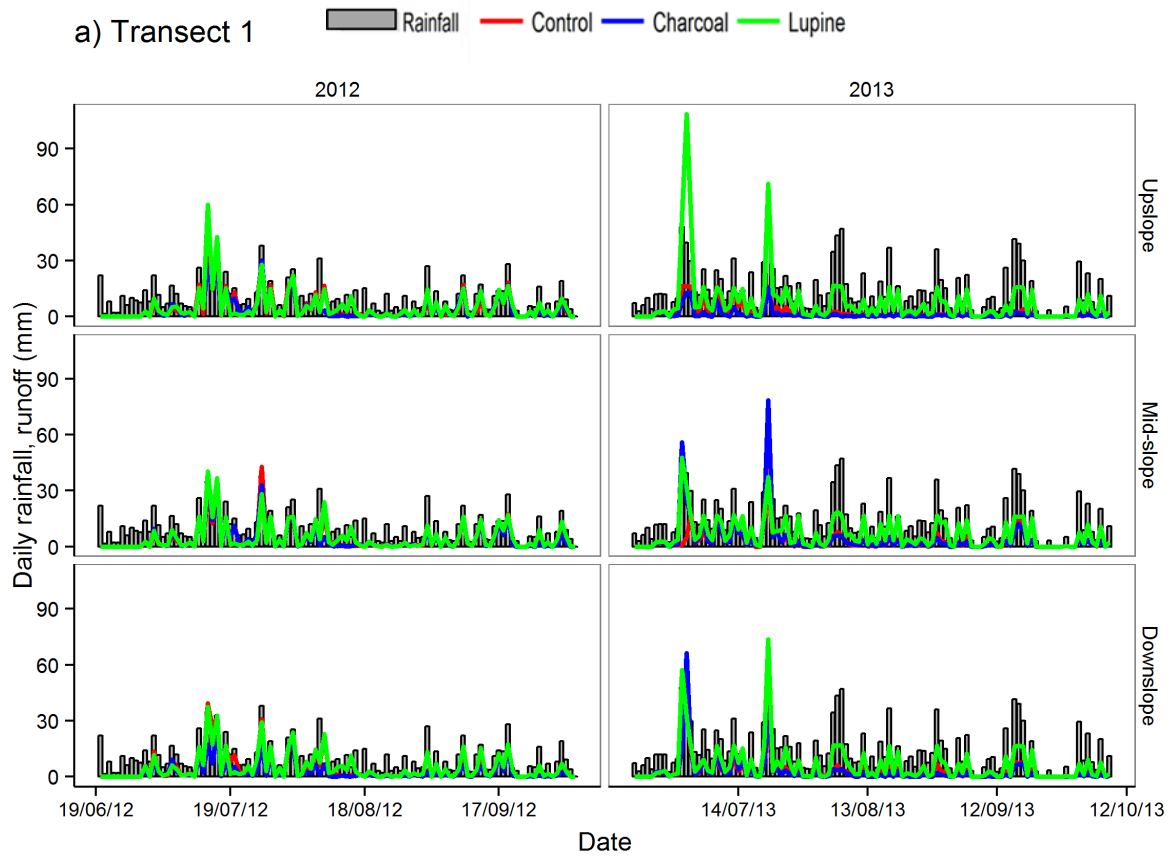
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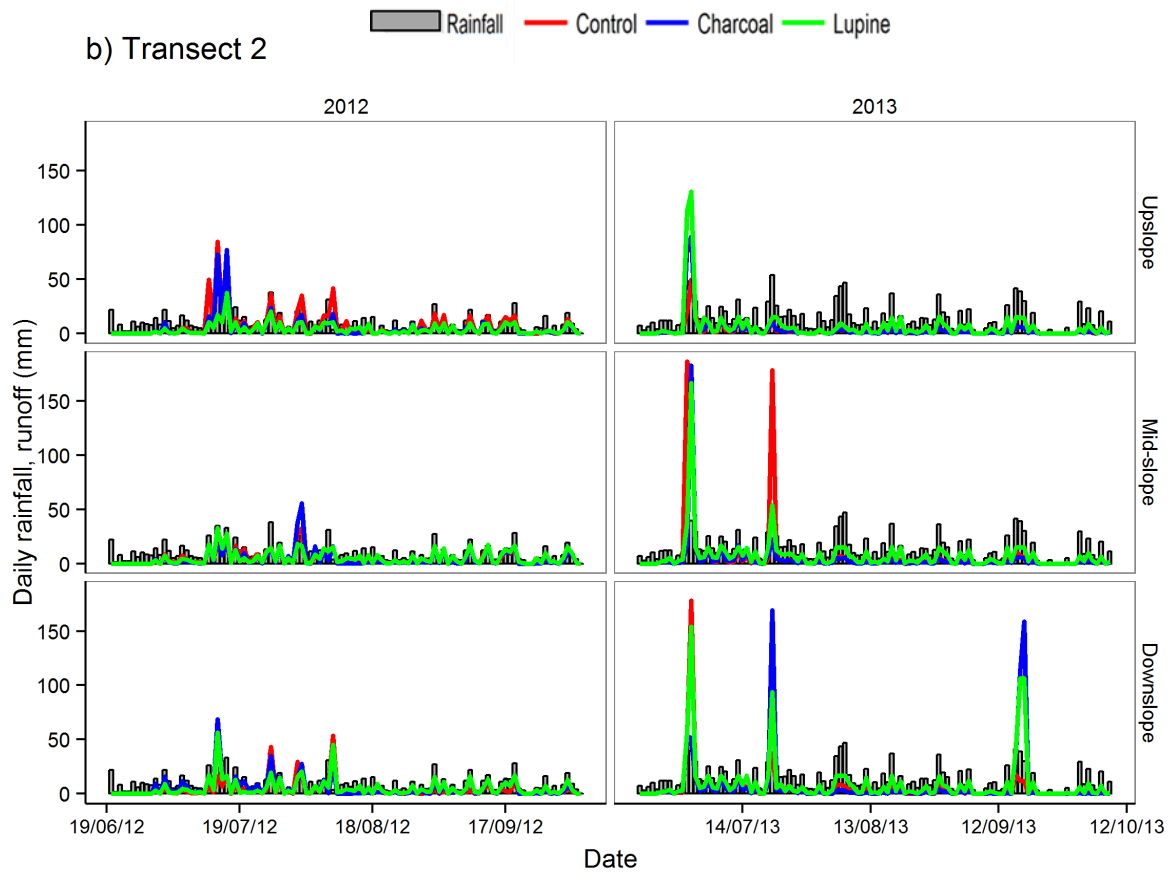
1 **Supplementary material B: Daily Plot Runoff Response**



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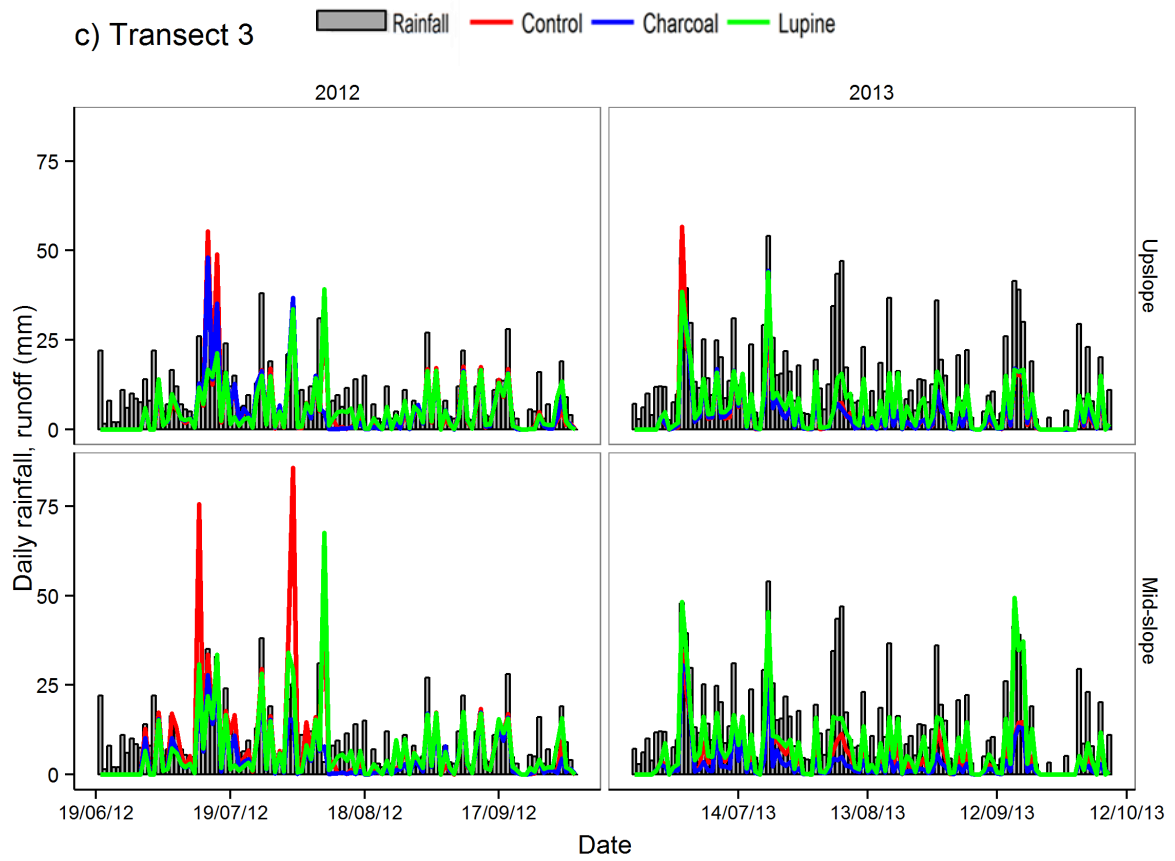
3 Figure B1. Daily rainfall versus runoff from plots along Transect 1

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2 Figure B2. Daily rainfall versus runoff from plots along Transect 2



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2 Figure B3. Daily rainfall versus runoff from plots along Transect 3

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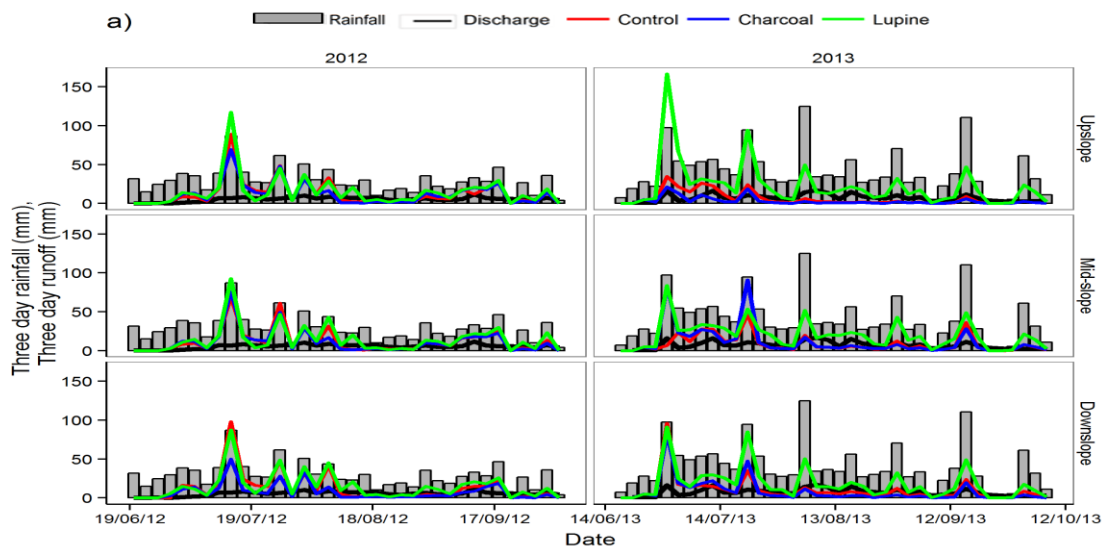
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1 Supplementary material C: Aggregated Plot Runoff Response

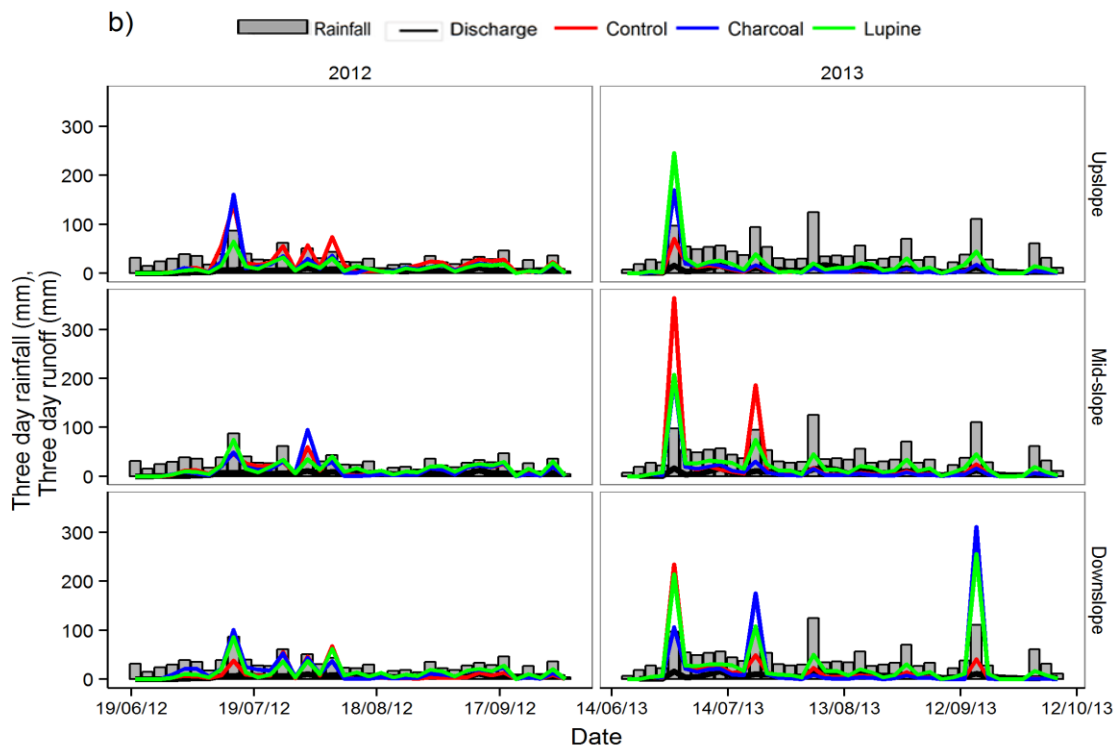
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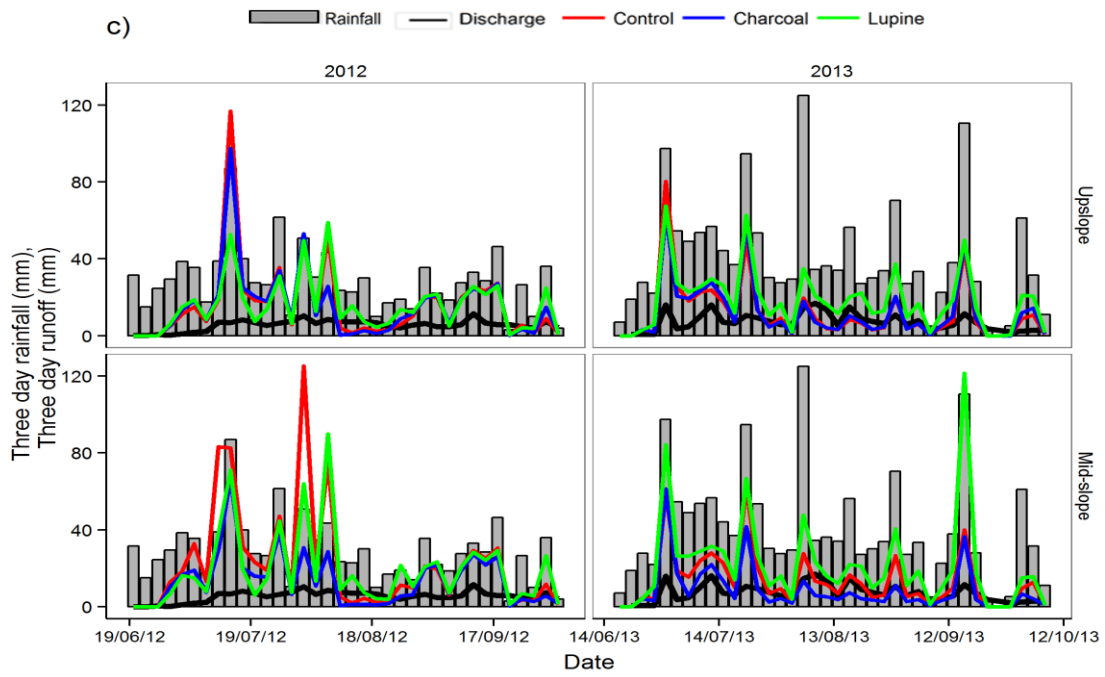
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3 Figure C1. Three day rainfall and unadjusted three day runoff (aggregated on 3-day intervals)

4 for individual plots from different slope positions along Transect 1 (a), Transect 2 (b), and

5 Transect 3 (c)

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1 **Supplementary material D: Summary of Annual Plot Runoff Response**

2 Table D1. Summary of total runoff during the year (Total runoff), average 3-day runoff in
 3 mm (Mean runoff) and Standard error (SE) in mm averaged of the plots in the transect for
 4 2012 and 2013. The annual precipitation in 2012 and 2013 was 1036 and 1528 mm,
 5 respectively.

Plot	Rainfall/Runoff (mm)	2012			2013		
		Transect			Transect		
		1	2	3	1	2	3
Control	Total runoff	438	487	603	300	367	482
	Mean runoff	12	14	17	10	17	15
	SE	2.8	2.5	3	1.7	2.7	2.5
Charcoal	Total runoff	365	467	512	282	365	397
	Mean runoff	10	13	14	13	18	14
	SE	2.2	2.5	2.6	2.1	3	2.3
Lupine	Total runoff	509	500	588	732	670	747
	Mean runoff	14	14	16	20	21	19
	SE	2.8	2.4	2.5	3.3	3.4	3.1
Rainfall	Total rainfall	1036			1528		
	Mean rainfall	29			40		
	SE	0.5			0.8		

6 *SE: Standard error of the mean

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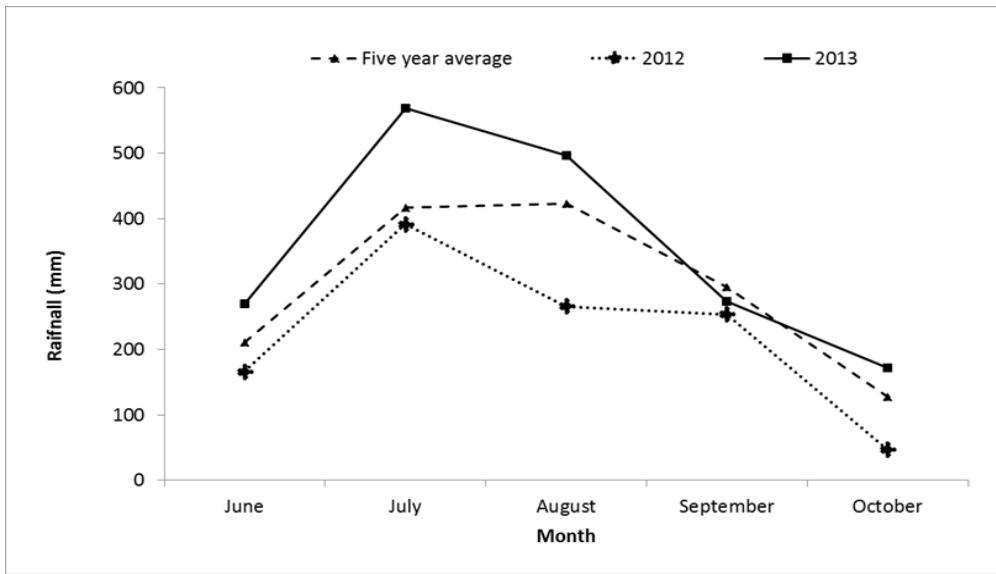
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1 **Supplementary material E: Monthly Rainfall Distribution during the Monsoon**
2 **Season**



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4 Figure E1. Monthly rainfall distribution during the monsoon period of 2012, 2013 and 5-year
5 average