

## AMMA Instrument Form

LA2/LF6

Code	PI (Name, E-Mail)	Labo, AMMA resp. and TT	AMMA Period	Funding Source
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**Description of the instrument.** Network of soil erosion measurement by estimation of soil losses and solid transport. ^plots and stream sampling

**Scientific and technical team.** Ibrahim Bouzou, Ibrahim Mamadou, Iliassou Alzouma, JMK Ambouta (UAM dept of geography) Luc Descroix, Stéphane Boubkraoui (LTHE, IRD)

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**Scientific Objectives** Documentation of soil losses on different surface features related with rainfall (intensity, duration, frequency and previous soil water content) ; documentation of sediment discharge;

**Observation Strategy** : the network includes 13 plots (12 of 10 m<sup>2</sup> and one of 100 m<sup>2</sup> on 4 different surfaces: millet, fallow, erosion crust, bioderma: 3 pots on each type; the 100 m<sup>2</sup> one is located in fallow in order to study scale effect (some 1 m<sup>2</sup> plots will be installed soon) ; runoff water volume is measured after each rainy event, samples allowing the determination of solid total transport; a sampling is made during the rain in two creeks;

**Links with other instruments.** This equipment are completing hydrometric network (EF19) because it allows to document solid discharge in the same time than water discharge; it needs information about rainfall (EF18).

**WPs relying on the instrument** : 1.2, 2.3

**References** : PHD Ambouta, 1994; PhD Roose, 1977

### OPERATION AND COLLABORATIONS

**Deployment (site, dates, logistics)** : Plots were installed in 2004 at Wankama basin, in 2005 at Tondi Kiboro one; in that site, 2 plots of each kind is installed, as well as a plot of 100 m<sup>2</sup>;

**African partners** : Instrument managed by Niamey University (dept of geography)

**Others** :

### INFORMATION for the DATA BASE

**Type of platform**: ground equipment

**Type of instrument**: plots and water sampling

**Sensor producer**: Local made

**Serial number of sensor**: none

**Information about calibration**: runoff: see EF19 instrument (streamgauges) load transport does not need calibration

**Site and position of sensor(s)**: on the two experimental catchments

**Measured parameters**: soil losses and solid discharge

**Data provided to the AMMA data base**: parameters of erosion and sediment transport;

**Unit of data provided**: erosion in g.m<sup>-2</sup>, solid transport in g.l<sup>-1</sup>

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