## PONASI ECOSYSTEM SURVEY MAY 2003

## **EXECUTIVE SUMMARY**

Po Nazinga Sissili (PONASI) Ecosystem is situated south of Burkina Faso along the border of Ghana. It covers an area of 4.210 km². The Nazinga Game Ranch (NGR) is a MIKE site within that ecosystem. NGR covers 940 km² and shelters the highest savannah elephant density of West Africa. NGR is included in the soudanian area.

One of the objectives of the MIKE Programme is to measure levels and trends in the illegal killing of elephants and to determine the fluctuations in these trends over time, as well to explain the reasons for these fluctuations. In order to achieve this objective, it is considered necessary to carry out regular censuses at each MIKE site, including if possible adjacent elephant range.

With the agreement of the MIKE Director, a decision to undertake a total count in the whole Ecosystem was made in early January 2003. The census, initially planned to take place in February, was postponed to the hot and dry season which occurs in May 2003.

10 Burkinabe Officers were used as observers in the survey. Several flight hours were dedicated to their training.

A total time of 35,01 counting hours was spent, at a scanning intensity of 119,95 km<sup>2</sup>/hour. The distance flown was a total of 6093,28 km.

The results obtained for the Ecosystem and NGR are as follows:

•	Elephant	603
•	Buffalo	145
•	Roan	1433
•	Hartebeest	1039
•	Waterbuck	101

Spatial analyses of the elephant and buffalo distributions showed that these populations were very sensitive to the disturbance caused mainly by human activities (fields, villages, cattle, wood cutting) in and around the Ecosystem.

A comparison of the elephant numbers over time was carried out for the NGR site, as previous reliable data was available. It appears that since 1989, the numbers have increased by 3,82% per year in the NGR site.