

### **Results gained at the end of Period 3**

- BOMOSA was disseminated during several events (e.g. meetings, workshops, technology exhibitions, agricultural shows etc.) and via media coverage (e.g. daily newspapers, magazines, radio, TV etc.). The BOMOSA webpage as a multiplier tool was regularly updated with news; consortium meetings and the final conference were announced. The final conference in Machakos (Kenya) was attended by around 70 participants, like scientists, professionals, decision-makers and community representatives. In the last period sixteen PhD and MSc students were working on their theses, seven MSc theses were successfully finished. Three scientific articles were published in peer-reviewed journals, two articles were accepted by scientific journals and seventeen scientific articles are under preparation. On the community level manuals were produced and further capacity building events were held.
- New locally available raw materials and formulated diets were analysed on their nutritive values. Results show, that especially breweries waste is very high acceptable concerning the nutritive components and even the feeding acceptance. A total of 78 feedstuffs using locally available raw materials have been analysed; 48 in Kenya, 21 in Uganda and 16 in Ethiopia. Growth performance experiments were conducted in different regions in all three countries by using the new formulations.
- The stress response of three different origins of Nile Tilapia fingerlings was evaluated under application of blue background light. Within this trial it was shown, that especially species with origin "Victoria" were most stress resistant. Different stocking densities and their influence on growth performance and production have been evaluated. For Ethiopia an optimum stocking density of 100 fish / cage could be recommended due to the results. New diets were again developed and tested with changing feeding rates and times. The water bodies were continuously monitored in terms of short term, seasonal and long term limnological changes. Water chemistry of the observed areas is mainly influenced by thermal structure, which is on the other hand mostly influenced by basin morphology and exposure.
- Veterinary analysis was furthermore carried out to determine reasons for eye diseases, which may lead to production losses due to changes in the feeding behaviour. Especially the eyes seem to be easily colonised by bacteria in a first step. Therefore it is recommended that every type of handling has to be performed in a very smooth way and that stocking densities have to be kept optimal. The results of all veterinary surveys were processed for the environmental impact monitoring programme to highlight possible risk factors deriving from BOMOSA cage culture system. A literature survey was conducted to evaluate which post-harvest methods were typical for which country, but due to the fact that all fish of BOMOSA sites were immediately sold after harvesting no direct studies were possible. Therefore in the main hub of Kenya, Sagana Aquaculture Center, smoking kilns were tested with success on locally farmed fish.
- Results of the first two years within the socio-economic studies were included in dissemination material and policy recommendations. Main outcomes of period 3 within this work package cover veterinarian and public health aspects, market conditions, social acceptance and economic viability. The Technology Implementation Plan (TIP) was prepared, summarizing most important project

findings for a widespread up scaling of the BOMOSA system within Eastern Africa.