

Wave – Verbundprojekt EPONa:
Ertüchtigung von Abwasser-Ponds zur Erzeugung von
Bewässerungswasser am Beispiel des Cuvelai-Etosa-Basins in Namibia

EPONa

Pilot & Research Facilities Handover, 28. August 2020



Rock Filter * for Post-Treatment of Wastewater (*submerged bio-percolation filter)

Presented by

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IWAR



- EPoNa incorporates a combination of different wastewater technologies and methodological approaches:
 - IWAR: High-Tec for pre-treatment (UASB, fine screen),
 - IEEM: Low-Tec for post-treatment (RF, rock-filter)
- In general, Low-Tec components* are cheaper, require less O & M, but they need more land and may be less effective than well maintained High-Tec components under certain conditions for certain water quality standards.

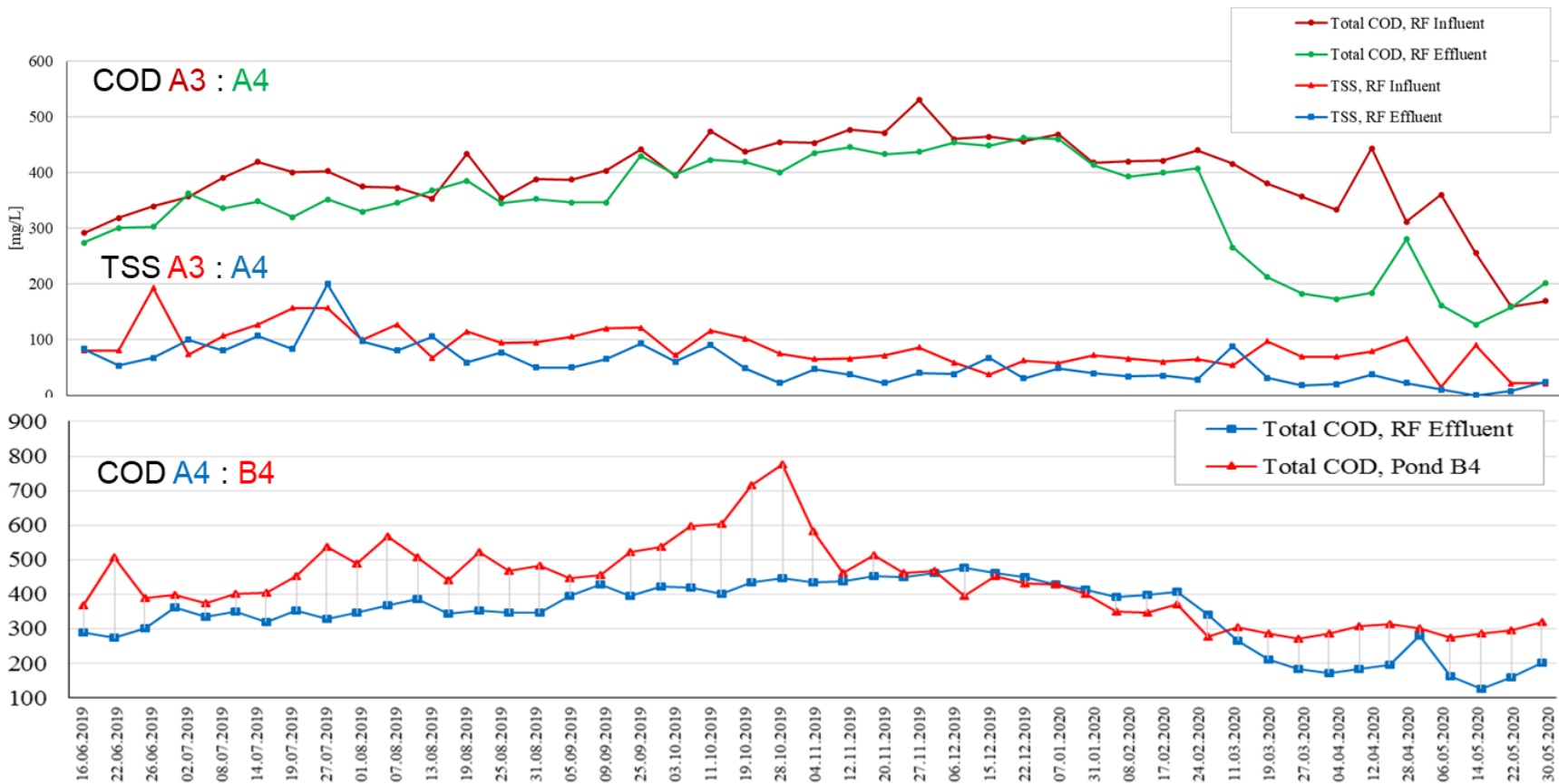
*UN Water: „Nature Based Solutions“

II. Description of the Rock Filter (1)

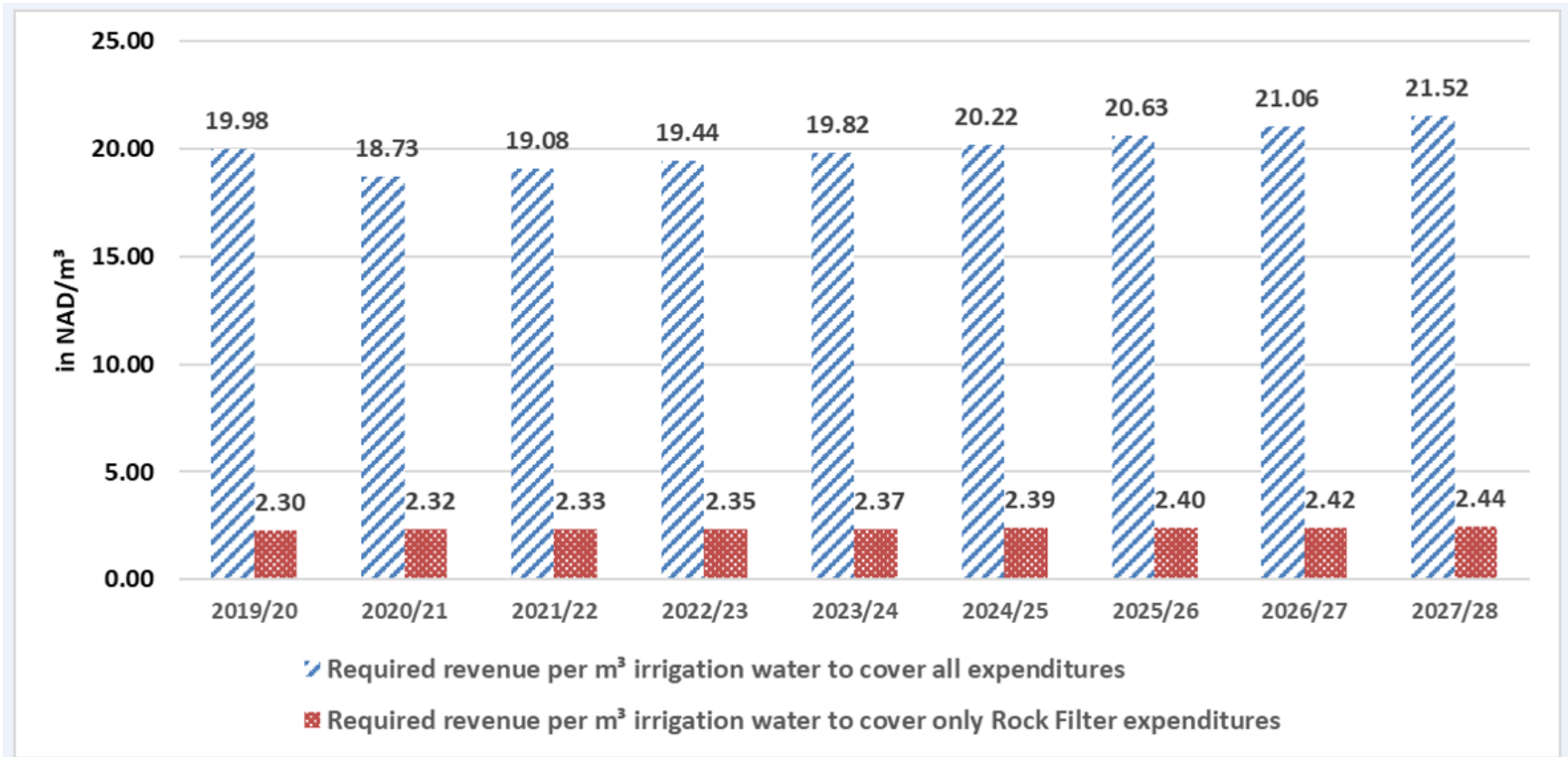
Site Plan / Photos



III. Technical Performance of the Rock Filter COD and TSS



IV. Economic Performance of the Stone Filter NAD/m³ irrigation water



Note: Total production costs in NAD/m³ are for the pilot plant set-up.

For a full-scale plant, the costs NAD/m³ calculated are 51% of those for the pilot plant.

V. Open Issues

which shall be covered hopefully
before EPoNa Project End Dec. 2020

Delayed through Corona:

- Repairs outstanding
Damage settlement of the broken slider and the defective actuator;
Cable laying for automated readout of data from the flowmeter IDM A4
- Monitoring campaigns outstanding
 - ❖ For verification of performance and general design data
 - ❖ With focus on selected parameter relevant for post-treatment
 - ❖ To accomplish monitoring data from periods with determined pre-treatment and under different seasons, weather conditions