EFFLUENT REDUCTION MEASURES – FROM WIOLAB TO WIOSAP

A CONSTRUCTED WETLAND SYSTEM AT MTONI-MSINGINI, PEMBA TANZANIA
CHAKECHAKE TOWN
CONSTRUCTED WETLAND POND (MTONI-MSINGININI SYSTEM)
BASICS OF THE WTP

• 1,160 M OF STORM WATER DRAINAGE LENGTH.
• 7 INTERMEDIATE CHAMBERS FOR SEWAGE LINES
• 2 CONSTRUCTED WETLAND PONDS (USING TYPHA SPP SOURCED FROM INSIDE PEMBA)
• CAPACITY TO TREAT OVER 200 KLD OF WASTEWATER BUT CURRENTLY RECEIVING LESS THAN 150 KLD.
• 600 CONNECTED HOUSEHOLDS OF CHAKE CHAKE TOWN.
• TRANSFERRED TO CHAKE CHAKE TOWN COUNCIL AFTER COMPLETION.
• ZEMA CARRIES OUT PERIODIC CHECKS AND CONSULTATIONS
• LOOKING FOR AMPLIFICATION UNDER WIOSAP.
CONSTRUCTION WORKS

PLANTING TYPHA

LAYING INLET LINES INTO THE PONDS
CONSTRUCTION WORKS

SEWAGE LINES UNDER ALIGNMENT

INTERMEDIATE CHAMBERS
BASIC ECONOMICS OF CONSTRUCTION WORKS – TECHNOLOGY MADE SIMPLE FOR COMMUNITY PARTICIPATION

CONSTRUCTION WORKERS IN ACTION

COMPLETING THE WETLAND POND
RAW MATERIALS

TYPHA HARVESTED FROM FRESHWATER PONDS

PREPARING LIMETONE BRICKS FOR THE POND SYSTEM
INCREMENTAL EFFECT OF TREATMENT

TREATED WATER USED FOR IRRIGATION

VEGETABLES GROWN FROM TREATED IRRIGATED WATER
FIVE YEARS ON....

STORM WATER DRAIN TODAY

OXIDATION POND BEFORE WETLANDS TREATMENT
PONDS AS SEEN TODAY

RETENTION PONDS

RETENTION PONDS
THE LAST LINE OF DEFENCE – MANGROVES BEFORE THE OCEAN
CONSULTATIONS WITH THE SECRETARIAT IN PEMBA IN MARCH 2017

WITH VPO, ZEMA, DOE, TOWN COUNCIL, ZAWA

WITH VPO, ZEMA, DOE, TOWN COUNCIL, ZAWA
FIELD VISIT AND CONSULTATIONS WITH STAKEHOLDERS
CONSULTATIONS WITH THE MINISTRY
WAY FORWARD

• UPSCALING AND REPLICATION, SCOPING AND EXPANSION.
• ENHANCEMENT OF EFFLUNET REDUCTION MEASURES
• WATER QUALITY MANAGEMENT AND MONITORING
• INCREASED INTERNAL AND EXTERNAL COLLABORATION
• CAPACITY ON PROJECT DOCUMENT WRITE-UP FOR WIO-SAP
• OPTION IN WATER QUALITY, ECOSYSTEM FLOWS AND CRITICAL HABITATS
• WORKING WITH GOVERNMENT AGENCIES AND CLOSE EXPERTS SUCH AS WIOMSA, UNIVERSITIES, IN IMPROVING AND ENHANCING INTERVENTIONS
AHSANTE SANA