SEMI-AEROBIC WASTE LANDFILL APPLICATION IN THE PACIFIC REGION

SAMOA, VANUATU, FIJI, SOLOMON, PAPUA NEW GUINEA, TONGA, PALAU AND FEDERAL STATES OF MICRONESIA (YAP, KOSRAE, CHUUK AND POHNPEI)

21/04/2016







Japan Regional Technical Cooperation Project on the Promotion of Regional Initiatives on Solid Waste Management (J-PRISM)

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NAMARA DUMPSITE, LABASA, FIJI NOV 2014

PROJECT COST

- About FJ\$250,000+ (AusAid)
- (i). New Office and E-waste Storage Building
- (ii). Construction of Waste Disposal Cells (3)
- (iii). Construction of Access Road within the Site
- (iv). Improvement of the Access Road

Other Costs

- (i). Labasa Town Council
 - Water & Power Supply, Fence & Landscaping by Labasa Town Council
- (ii). JICA
 - Technical Assistance (Project Drawings and Designing &, Supervision of Construction Works)

SITE`S BACKGROUND INFORMATION ✓ Located on a Mangrove Area ✓ About 2ha (20,000m2)

- ✓ Has been used as a Dumping area for 30+ years
- ✓ About 1.5m above sea-level







ON GOING POLLUTION OF THE MANGROVE ENVIRONMENT





VERY POOR ACCESS TO THE SITE RESULTING TO INCOMING WASTE BEING DISPOSED WHEREVER CARS CAN REACH



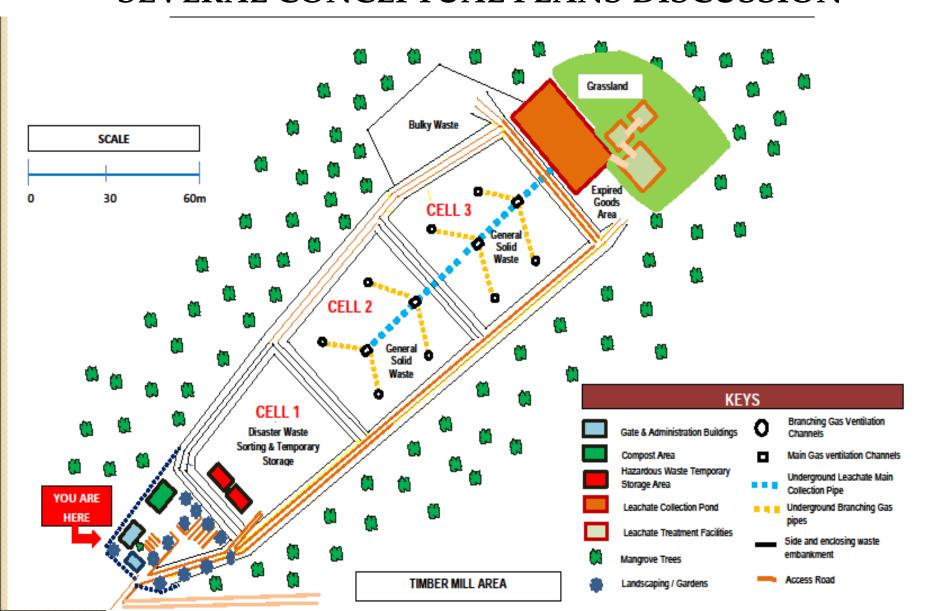


- 1. Protection of the site from flooding
- 2. All weather-condition access roads
- 3. Control on the Incoming Waste
- 4. Control on the generated leachate.
- 5. Control on the generated methane gas

PLANNING OF IMPROVEMENT WORKS TO INCORPORATE STRATEGIC MEASURES FOR IMPROVEMENT OF THE SITE USING THE FUKUOKA METHOD



FINAL LAYOUT OF PROPOSED IMPROVEMENTS AFTER SEVERAL CONCEPTUAL PLANS DISCUSSION



6. CONSTRUCTION WORKS BEING CARRIED OUT



RAISING THE BASE + CONSTRUCTED SURROUNDING EMBANKMENTS TO ISOLATE THE SITE FROM THE NEARBY MANGROVE ENVIRONMENT





PLACING THE ACCESS ROAD ON TOP OF THE SIDE EMBANKMENTS TO AVOID FLOODING AND WATERLOGGED CONDITIONS

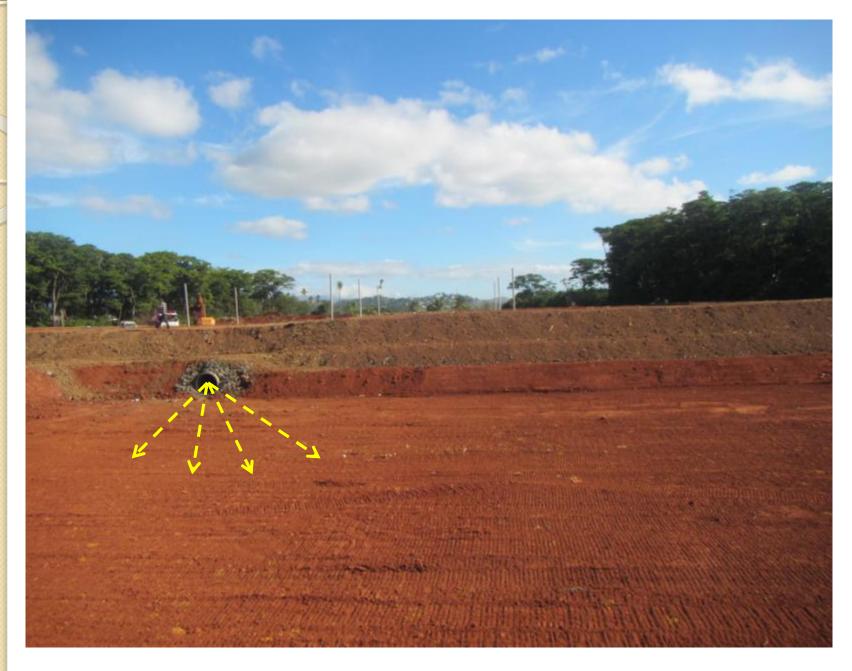


CONSTRUCTION OF 3 WASTE CELLS FOR THE DISPOSAL OF WASTE



CONSTRUCTION OF FACILITIES FOR COLLECTION OF THE GENERATED LEACHATE OR WASTEWATER

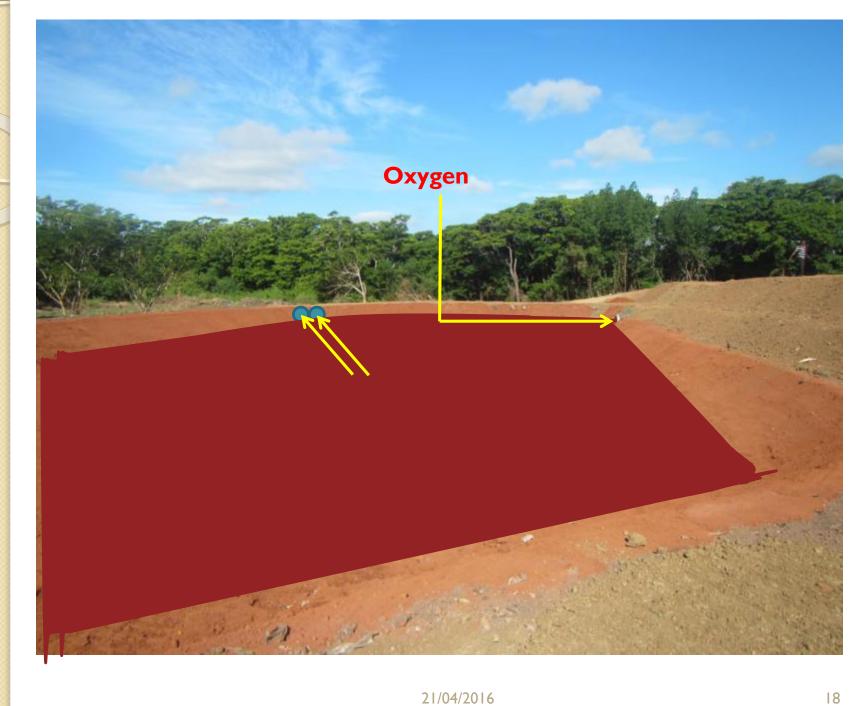




PILOTED CLIMATE CHANGE ADAPTATION MEASURES FOR LOWLAND WASTE DUMPSITES 21/04/2016



PILOTED CLIMATE CHANGE ADAPTATION MEASURES FOR LOWLAND WASTE DUMPSITES 21/04/2016

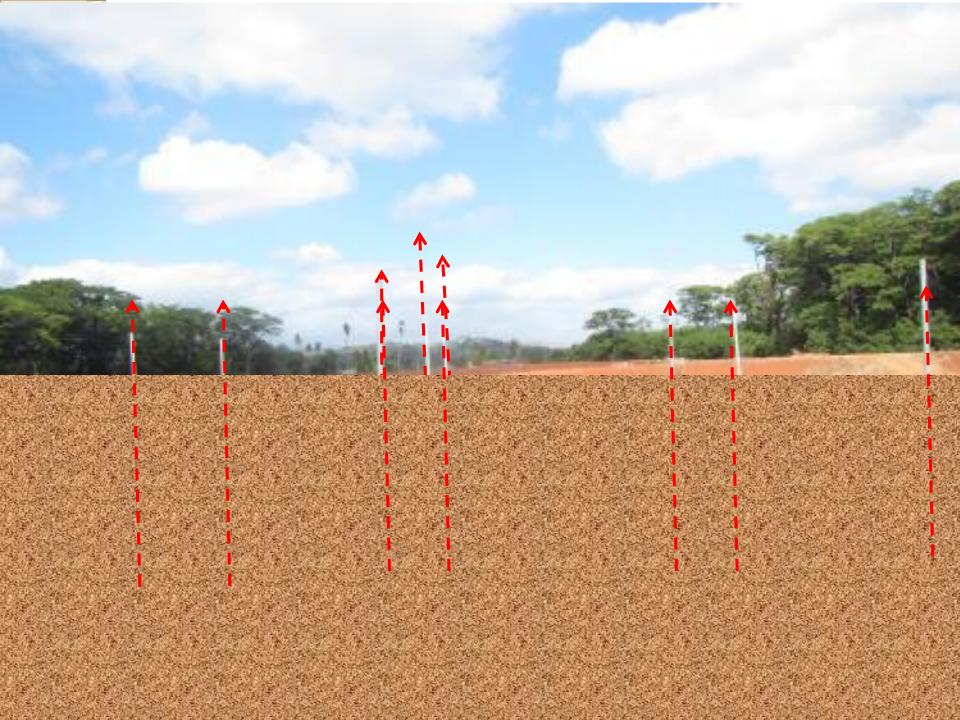


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PILOTED CLIMATE CHANGE ADAPTATION MEASURES FOR LOWLAND WASTE DUMPSITES 21/04/2016



THE NEW FACE OF NAMARA WASTE DISPOSAL FACILITY FROM AN OPEN DUMPSITE TO A SEMIAEROBIC WASTE LANDFILL STRUCTURE



SIMILAR WORKS HAVE BEEN IMPLEMENTED IN OTHER PACIFIC ISLANDS

- SAMOA (2003)
 - PALAU
 - VANUATU
- POHNPEI (FSM)
- KOSRAE (FSM)
- VAVAU ISLAND (TONGA)
- SIGATOKA & LAUTOKA (FIJI)
 - PORT MORESBY (PNG)
- HONIARA (SOLOMON ISLAND)

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KALAKA DUMPSITE ON VAVAU ISLAND, TONGA IN 2013



ON GOING BURNING, BAD ODOUR, FLIES EVERYWHERE & DIRECT INPUT OF WASTE AND LEACHATE INTO THE NEARBY OCEAN





SURROUNDING EMBANKMENTS TO PROTECT WASTE FROM DIRECT CONTACT WITH THE NEARBY OCEAN

CLAY LINING OF THE BASE FOR CAPTURING OF THE GENERATED LEACHATE

CONSTRUCTION OF THE LEACHATE COLLECTION FACILITIES FOR THE MANAGEMENT OF THE GENERATED LEACHATE









CURRENT STATUS OF THE SITE





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POHNPEI IMPROVEMENT WORKS IN 2013







THANK YOU

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