



be'ah

Oman Environmental Service Holding Company







be'ah Looking backward



6-7 September 2022



Oman Environmental Services Holding Company "be'ah" **Established**





Municipal Solid Waste Management Service Takeover Commencement

July '07 July '06 Aug '09 Jul '12 Dec '15 2011

Draft Strategy Report: National Solid Waste Management Project



Royal Decree 46/2009

استرانيجية القطاء التي تعدها وزارة الاقتصاء الوطني التَّافِينَةَ ، الشَرَكَةَ في سبيل إنهام مهامها إنشاء شركات تابعة لها أو السا **Approved by Ministry of Finance**

Budget



be'ah Vision



To Conserve the Environment of our Beautiful Oman for our Future Generations



be'ah Mission



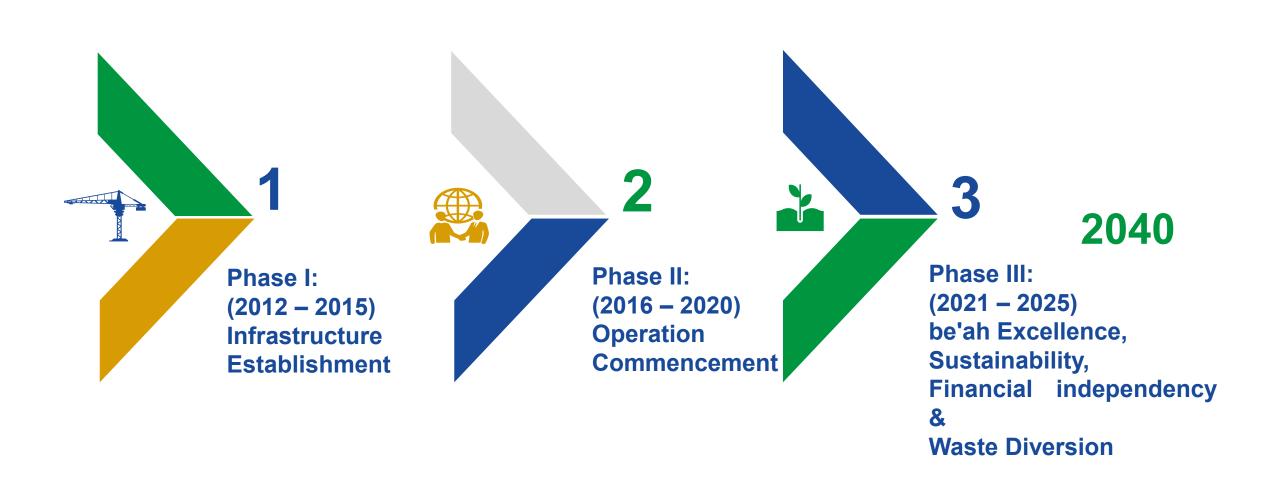
Together we develop the waste Management sector in Oman by providing Safe, efficient and the mot economically and environmentally sustainable services in innovative ways- thereby contributing to the overall economy



be'ah's Strategic Direction



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Organizational Resilience

Capacity Management







Risk Management



Reference Hazard Recovery Identification Documents Measures Hierarchy of Residual Risk Scenario Development Controls Rating Acceptance / Identification of Initial Risk Non Acceptance Controls Rating of residual Risk

11 Principles of Risk Management

- creates and protects value
- is an integral part of organizational processes
- is part of decision-making
- addresses uncertainty
- is systematic, structured and timely
- is based on the best available information
- is tailored
- takes human and cultural factors into account
- is transparent and inclusive
- is dynamic, iterative and responsive to change
- facilitates continual improvement of the organization



and why

Management of Change

express their fears



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Management of Change is addressed throughout the ISO Standard family and fully embedded in ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, the main ISO Standards for Management Systems.







- Confusion, Overpreparation, Chaos
- Set short term goals and get staff focused



Commitment

- Cooperation, Teamwork, First success
- Start setting long term goals, focus on active communication



Operational Continuity Management



After Risk Assessment and implementation of Management of Change,

"THE NEW WAY"

needs to become

"THE WAY WE DO THINGS AROUND HERE".







Identification of Risks

Exposure to SARS-CoV-2 (Sick employees, Surfaces, Asymptomatic Cases)

- At the beginning of the Pandemic the role of Asymptomatic cases in the transmission and spread of COVID-19 was not fully understood and the exposure path of Surface infections have been initially overrated*.
- Controls have been put in place for the following:
 - Surface decontamination and disinfection in order to reduce risk of fomite transmission
 - Social distancing to reduce risk of aerosol and droplet transmission
 - Face masks to reduce the risk of aerosol transmission
 - Closure in mobile camps of common areas (Recreation Room, Mess halls, Prayer rooms)
- SARS-CoV-2 Rapid Antigen Tests for all incoming Crews
- SARS-CoV-2 Rapid Antigen Tests for Track & Trace
- PCR Tests for medical diagnosis
- PCR Test required for clearance after COVID-19 illness
- Rotation schedule change (longer rotation)
- Crews promised themselves to reduce social exposure during off days (2 families: Work and Home)

^{*} Science Brief: SARS-CoV-2 and Surface (Fomite) Transmission for Indoor Community Environments, last updated April 5, 2021





Management of Change Employees affected by Changes required to limit risks of transmission

- Determination and Commitment of Top Management to reduce the risk for employees at the workplace to as low as possible
- Communication of facts on COVID-19 (HSE Meetings, Conference calls, Whatsapp, etc.)
- Communication only of information received from reliable resources (Ministry of Health, World Health Organization)
- Communication in simple, clear language
- Focusing on concerns of employees (active listening, feedback sessions)
- Keeping COVID-19 response plan updated at all times with new learnings or Oman Supreme Committee decisions
- Supporting employees during vaccination role out (booking, adjustment of crew schedule)
- SARS-CoV-2 Rapid Antigen Tests for all incoming Crews (Scheduling, Resources, Controls)
- Crew shift transport (increasing number of Crew busses)
- Provision of food parcels in camps and on location (work with Catering supplier)





Operational Continuity Management

- Anybody sick (irrespective if COVID-19 or Common Cold) works from home
- Anybody sick in the field will stay for 2 days in quarantine
- Only limited meetings face-to-face, most online
- SARS-CoV-2 Rapid Antigen Tests for all personnel visiting field Operations
- Availability of an additional Emergency transport vehicle at Base in order to relocate infected from remote area to area nearer to medical facilities and family support
- Disinfection of Camp rooms during daily cleaning
- Face masks to be worn in all closed areas, social distancing in outside areas

Thank You







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Screening Rapid Test

Screening Test kits are being used in Europe with School kids on a regular basis.

- easy to use
- no infrastructure required
- less intrusive than PCR, as self administered



Crew change screening locations



Impressions from Screening during Crew change





Description	Value	Unit	Remarks
Total number of Currently Sick	14,256	Persons	Take number from Ministry of Health Oman
Factor of undetected (between 4 to 10)	7	Persons	Factor of actual infected vs. diagnosed (good testing programmes in country factor "4", no testing programmes in country factor "10"). Define the Risk appetite of your organisation here (e.g. 4 high risk appetite , 10 low risk appetite)
Estimate of total number of sick	99,792	Persons	Number of diagnosed multiplied by selected factor of undetected
Total population in Oman	4,485,000	Persons	Total population in Oman
Total number of Crew change people	40	Persons	Total number of people in Crew change
Likelihood of one COVID-19 positive in Crew	2.23%	Percentage	The percentage of people COVID-19 positive in the Crew change
Day rate	10,000	USD	Enter here your day rate in USD
Days of potential shutdown	2	Days	Enter here the NPT in days expected for crew change, disinfection of Rig/Hoist, Camp, etc.
Cost of potential shut down	20,000	USD	Cost of potential shutdown
Nominal Financial Risk	445	USD	Nominal Financial risk exposure in USD due to COVID-19 spread
Cost of Rapid Test	9	USD	Cost of a single Rapid Test in USD
Total cost of 100% Crew screening	360	USD	Cost of screening of Total incoming Crew

Grey fields require data entry, all other fields are auto calculated





Screening results per groupNumbersNegative2760Positive79Confirmed via PCR79Asymptomatic Cases20

Screening Tests invalid

Total

Fast identification of in total 79 cases has enabled Real Life Example to break the infectious chain. The basic reproduction number (R0) of COVID-19 is at 3.38±1.40*.

This means Real Life Example has prevented between **156** and **377** new infections.

In the Sultanate of Oman, the Case fatality (Death rate) was in 2021at 1.4%
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Meaning, 1 (one) in 140 Cases ends in Death.

Real Life Example has saved between 1.1 and 2.7 lives by using the Rapid Antigen Tests.

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^{*} National Center for Biotechnology Information, U.S.A., https://pubmed.ncbi.nlm.nih.gov/32498136/, Estimate of the Basic Reproduction Number for COVID-19: A Systematic Review and Meta-analysis

** John Hopkins University & Medicine, U.S.A., https://coronavirus.jhu.edu/data/mortality, Coronavirus Resource Center, MORTALITY ANALYSES