



Construction Waste in Saudi Arabia From **Threat** to Opportunity

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About Prof. HASSAN

PHD in Civil Engineering, MBA in E-company
OPM3, PMP, PMI-RMP, and LEED.

25 years of experience in Construction and
Development services.

PMO Leader HMM Projects

\$ 3 Billion

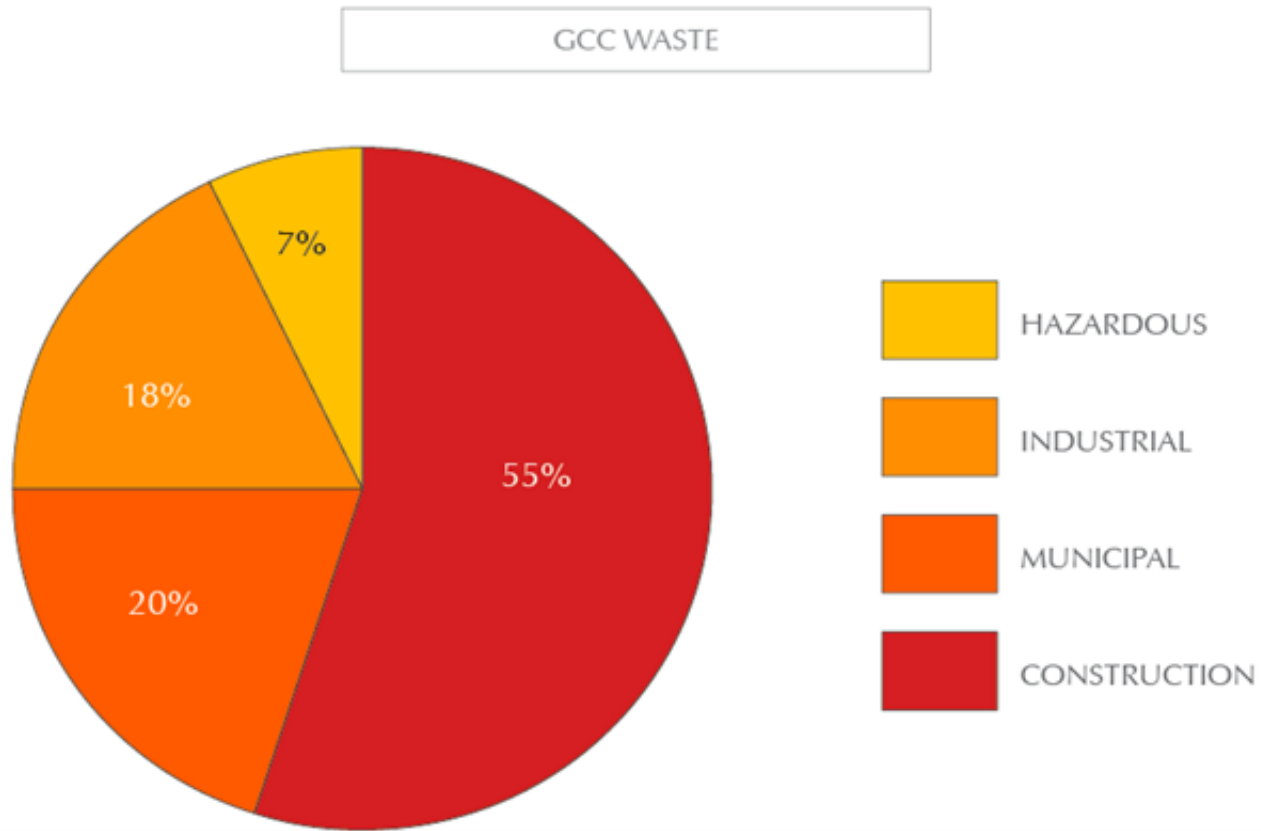
General Manager MOI Projects

\$1 Billion

OPM Consultant Family Co.

\$ 5 Billion

80 Mt/y of waste From GCC



18 Mt/y of waste **From Saudi Arabia**

87% CW

- Faced with crowded landfills
- High Construction Costs
- Environmental concerns



Why?



- **Housekeeping**
- **HSSE Mgt.**
- **Financial control**

Saudi Arabia CW Disposal Projects



12 Billions SR to avoid the Waste Negative Impact

CW is not **Hazardous Waste**



CWR = landfill reduction + economic savings

CW Life Cycle Cost



← landfill **Tipping fee** **#** **Processing fees** **Recycle →**
+ land use + EI **- Product Price**

CWR Success Factors



- CWR New Technology in Sites
- PPP approach to operate CWR
- Government Support to CWR

CWR in Site

- Designing out waste
- Tender
- Site waste plan
- Segregation on site
- CW monitoring
- LEED certificates
- Waste awards



CWR New Technology



Concrete-Recycling Robot for CWR in Sites

PPP to operate CWR



Storage, processing and disposal can be **DBOT**

BOOT CWR Station in UAE



70% Recycling & CWR 8000 ton/year

BOOT CWR Station in UAE



8 AED/ton CWR cost & 0.5 AED/ton Incentive pay

Government **Support to CWR**

- **Municipalities have to target the Construction waste to reduce landfill tonnage and increase recycling rates.**



- **Recovery and processing plants have to built in different regions to offer contractors opportunity to recycle construction waste.**

CWR in Gov. Contracts



The approval to use crushed concrete **for backfill**

The Main CWR **Success Factor**



To convert the CW **Threat** to **Opportunity**



Be Green

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