



# Danang City

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# 1. Urban sustainable development



# 1.1. Economic growth & transformation

- Danang is seeking an economic transformation from heavy reliance on manufacturing and construction towards services, high tech industry, information technology and tourism.
- 68% of total FDI are in the real estate and tourism sector.
- Danang had close to 2 million visitors in 2011, which is projected to reach 6.2 million by 2020.
- An IT Park (131 ha) and a Hi-Tech Park (1,010 ha) are being developed.





# 1.2 Urban developed infrastructure

- Road networks, urban facilities have been built and renewed.
- There are many new planned residential areas, parks, play-grounds, supermarkets, trade centers etc...



# 1.3. An Environmental city

- Danang targets to become an environmental city by 2020.
- Initial steps have been taken to reach these objectives:
  - + No longer accepts investments in high emission industries.
  - + Taking steps to move polluting firms into a new industrial zone
  - + Aims to attract software and technology firms to Hi-Tech Park and IT Park.
  - + Rapidly expand the tourism sector.

## **2. SOLID WASTE MANAGEMENT IN DANANG CITY**

# QUANTITY OF COLLECTED SOLID WASTE

Year	Total quantity of collected solid waste	Undangerous waste			Dangerous waste	
		Residential solid waste	Industrial waste	Medical waste	Industrial waste	Medical waste
2007	191.022	186.055	3.820	1.146		
2008	194.000	188.956	3.880	1.164		
2009	209.633	203.516	4.500	1.257	215	144
2010	228.700	220.714	6.069	1.372	395	150
2011	244.421	238.498	3.917	1.553	267	185

**Rate of collected solid waste in 2011: 91 – 93%**

# PUBLIC DUSTBIN ON STREETS





## Collecting waste in small alleys



# LIFTING AND PICKING UP GARBAGE BY SPECIALIZED TRUCK ON STREETS



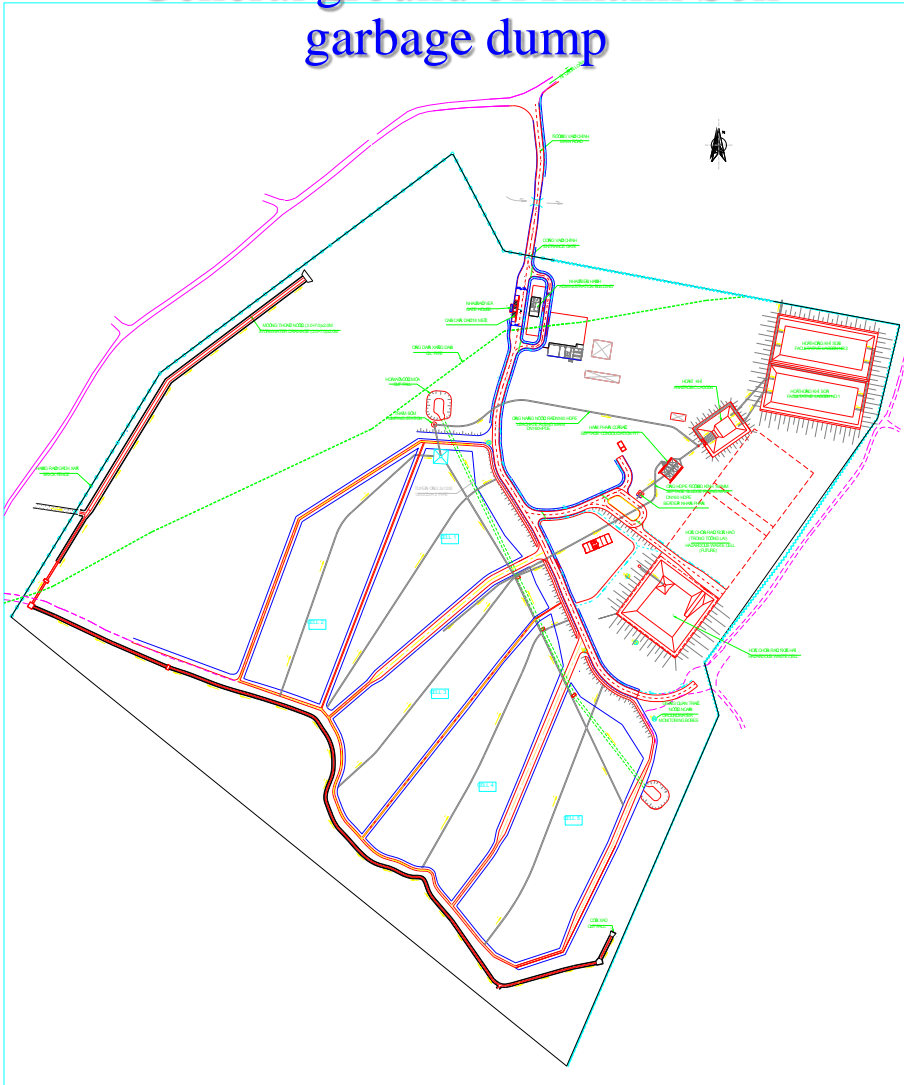


# Waste concentrated at transfer station



# B-1 r,c kh, nh s-n

General ground of Khanh Son  
garbage dump



Urban garbage dump



# **CHALLENGES RELATED TO SOLID WASTE TREATMENT**

- 1. WASTE ARE NOT CLASSIFIED IN SOURCE CREATING MANY OBSTACLES FOR TREATMENT ACTIVITIES**
- 2. MOST OF INDANGEROUS WASTES ARE TREATED BY BURYING WITHOUT ANY SUPPORTING SOLUTION LEADING TO MANY ENVIRONMENTAL PROBLEMS AND CAPTURING LAND FUND FOR BURIED WASTE DUMP**
- 3. MISSING EQUIPMENTS FOR OPERATING GARBAGE DUMP LEADING TO INEFFICIENCY IN TREATMENT AND OPERATION AND GENERATING ENVIRONMENTAL PROBLEMS AT GARBAGE DUMP AREA**
- 4. SHORTAGE IN FACILITIES FOR DANGEROUS SOLID WASTE TREATMENT ACTIVITIES LEADING TO NOT MEET BUSINESSES'REQUIREMENTS**

# **PROPOSED OPPORTUNITIES FOR COLLECTING AND TREATING SOLID WASTE**

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- 1. BUILDING A MASTER PLAN OF SOLID WASTE MANAGEMENT IN DANANG CITY**
- 2. IMPLEMENTING TO EXPAND THE MODEL OF COLLECTING WASTE IN HOUR AND MOTORIZING COLLECTING SYSTEM**
- 3. STUDYING SOLUTION OF HIDEINIZING PUBLIC DUSTBIN SYSTEM ON STREETS**
- 4. PATTERN OF TECHNOLOGY OF RECYCLING PLASTIC AND RUBBER WASTES INTO FUEL AT KHANHSON GARBAGE DUMP**

Thank you for listening!