



# **Waste management opportunities and doing business in Iran**

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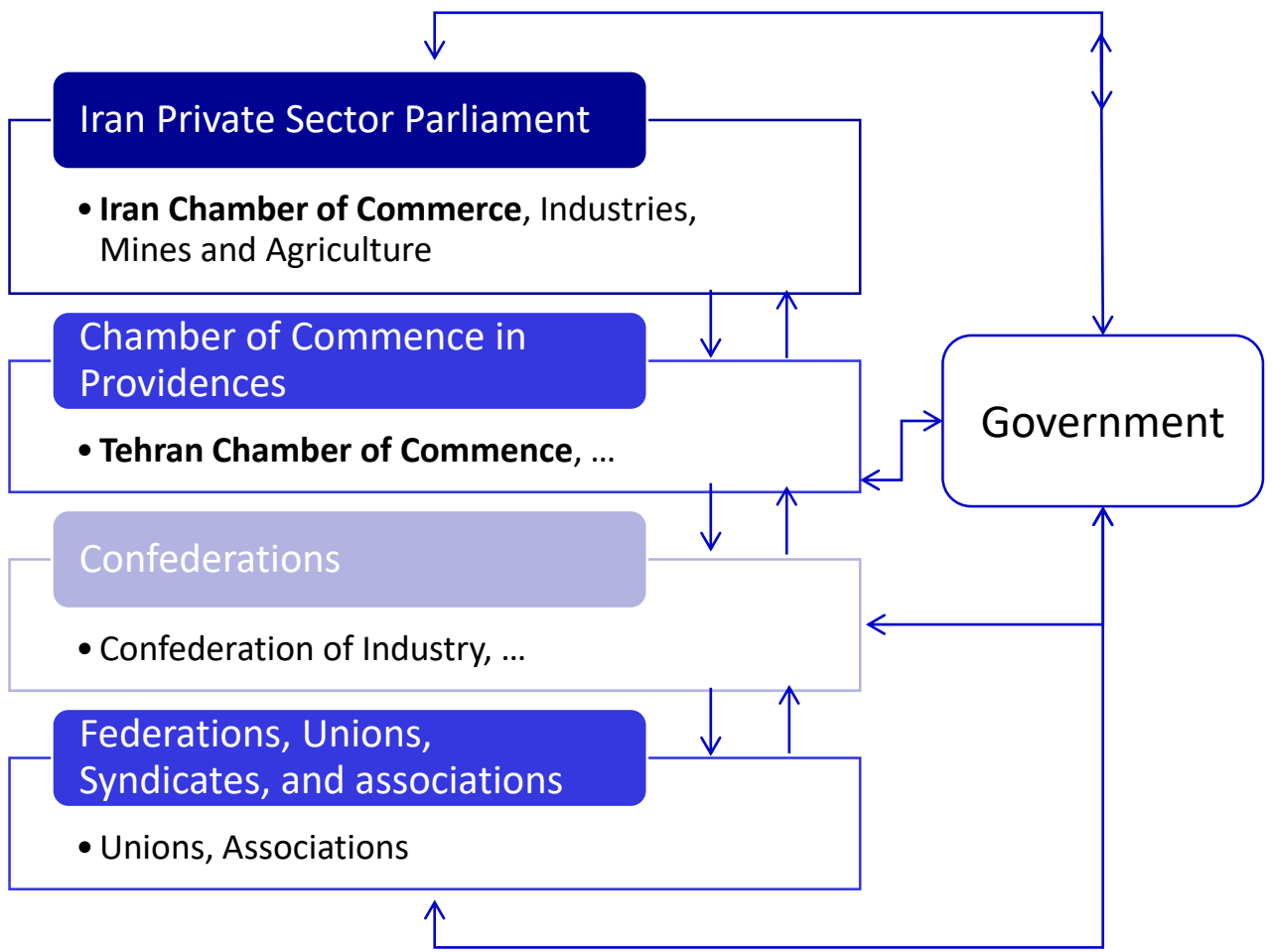
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## Section 1: Introduction

- ✓ Iran's Private sector flowchart
- ✓ Energy and Environment Committee of TCCIMA
- ✓ Waste in Iran

# Iran's Private sector flowchart





## Energy and Environment Committee of Tehran Chamber of Commerce

- ✓ The proposed environmental regulations for the deployment of industrial units in the suburb areas
- ✓ Green University (Waste Management in Universities)
- ✓ Replacing electric buses with fossil fuel engines



## Waste in Iran

- Area: 1, 648, 195 km<sup>2</sup>
- Population: 80 million
- The 18th largest and most populated country in the world
- The second largest and most populated in the Middle East

### Iran has:

- 31 province
- 1,100 city
- 2,500 Village



**The need for waste management in Iran**





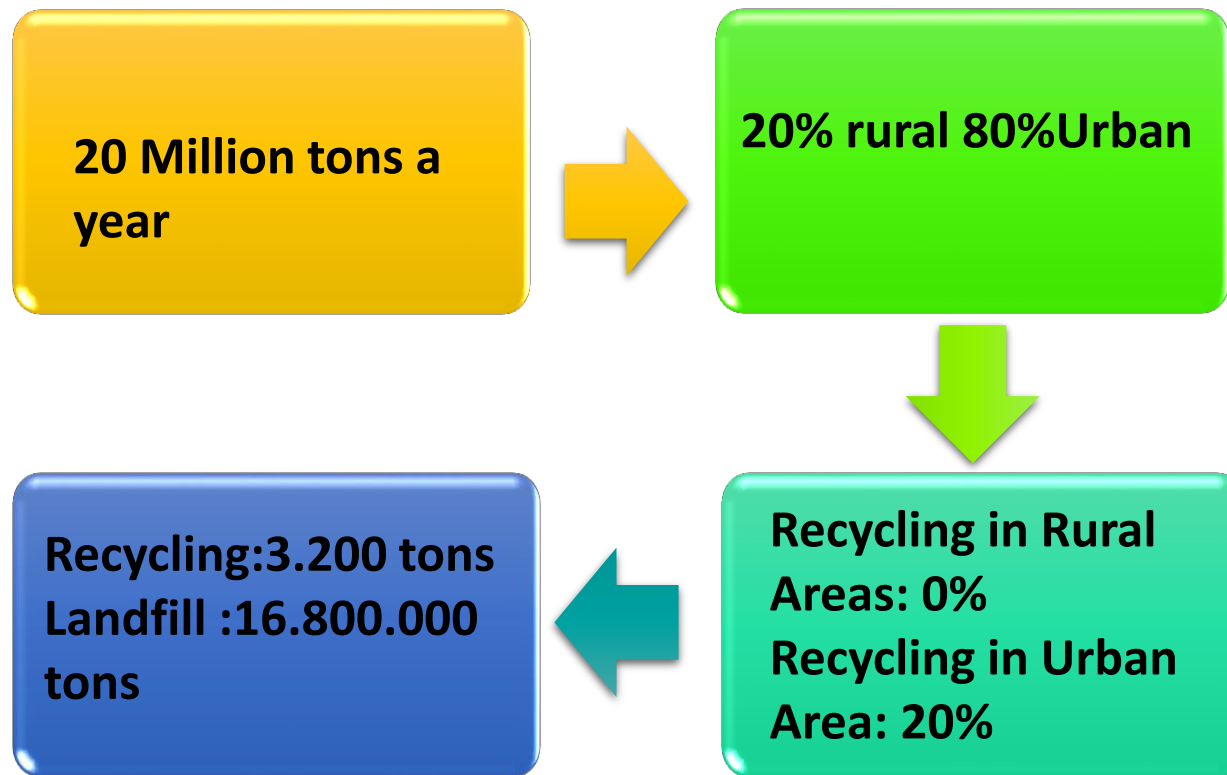


## **In Tehran (Capital):**

- waste generation per capita: 750-800 gr/day**
- waste generation per capita: 270-450 kg/year**



## Total waste production in Iran



**60 Million tons/year of Construction Waste**  
**50,000 tons/year of Greenhouse Gases**  
**10,000,000m<sup>3</sup> of Leachate from landfills**



# Section 2: Waste management system in Iran

- ✓ Important points
- ✓ Waste analysis
- ✓ Outline of the waste management system in Iran



## Important points

**Informal Landfills are located in the countryside or deserts near cities**

**Recycling in Iran has a 60 year history, the first composting plant for organic waste was built in Isfahan in 1955 (The third biggest city in Iran with 2 Mil people)**

**Mechanized Waste Collection accounts for 87% of waste collection in Iran**

**5000 tons of plastic are dumped in landfills every day**

**About 60% to 70% of waste in Iran is Organic waste**

**Municipal waste moisture is more than 40%**

## Waste analysis

Components	Percent
Organic	61.6
Paper	10.8
Plastic	10.2
Metal	3.2
Glass	4.2
Textile	4.7
Wood	5.3





## waste management system in Iran

- o Source reduction
- o Storage and Processing
- o Waste Collection
- o Transfer & Transport
- o Recycling
- o Waste disposal
- o Management after disposal
- o Support



# Section 3: Challenges, Objectives & Opportunities

- ✓ Challenges
- ✓ Objectives
- ✓ Opportunities

## Challenges

1. Lack of public education in order to help reduce waste production, especially organic waste
2. Lack of influential education about waste separation
3. Increase in the use of the plastic (More than 500 tons per day and 177,000 tons per year)
4. Frequency of waste collection in a day
5. Unsafe management of medical waste





## Challenges

6. Informal Landfill for most of urban and almost total of rural waste
7. Lack of information regarding modern disposal solutions such as digesters, incinerators, biogas and combined methods in municipalities
8. Lack of finance for new projects in waste management especially modern disposal methods



# OBJECTIVES



- o Reduce non-organic waste from 60% to 45%
- o Increase source separation from 7% to 30%
- o Increase recycling from 13% to 30%
- o Increase Formal Landfills from 2% to 20%

- o Promote new technologies for waste disposal such as incinerators, digester, biogas, ...
- o Optimize waste collection, increase awareness of people

OPPORTUNITY





# Opportunities

1. Cooperating with Iranian consulting companies for technical training and awareness in waste management.
2. Cooperating with Iranian consulting companies and municipalities to find the best solution for various cities in modern methods of waste disposal.
3. On site assessment and negotiation with municipalities
4. Cooperation in know how transfer and new waste management systems and technologies

## Opportunities

5. Cooperating with Iranian companies in supplying waste management equipment such as machinery, tanks and etc.
6. Cooperating with Iranian companies for waste management projects being executed in Iran and neighboring countries.
7. Use Iran as a hub for the export of services to neighboring countries such as Afghanistan, Pakistan, Iraq, Turkmenistan, Azerbaijan, etc.
8. Investment on waste management services such as incinerators, digesters, formal landfill and etc.

## Section 4: Renewable Energy in brief

- ✓ Governmental Plans by 2021
- ✓ Installed Renewable Energy Power Plants
- ✓ Current Foreign Investors
- ✓ Investment Opportunities in Solar and Wind Projects



## Governmental Plans by 2021

- 5,000 MW Renewable Power
- Expansion of renewable energy sources through annual allocation of the equivalent of the income from 1 KW/day of consumption
- Authorizing the national electricity company, Tavanir, to mobilize connectivity of the renewable power plant to the national grid
- Zero import tariff fee on renewable energy equipment
- Upto 18 months grace period for the renewable power plant to become operational
- Authorizing commercial banks to provide loans at a rate of 15 - 18%

## Installed Renewable Energy Power Plants (Jan 2018)

Item	Power plant	Governmental capacity (MW)	Non-Governmental capacity (MW)	Total (MW)
1	Wind	98.86	89.56	188.42
2	Solar (PV)	7.4	53.157	60.557
3	Biomass	0	10.56	10.56
4	Small Hydropower	62.4	13.55	75.95
5	Waste heat recovery	0	9.6	9.6
<b>Total</b>		<b>168.66</b>	<b>176.42</b>	<b>345.08</b>

## Current Foreign Investors

- SkyTech Norway want to sign a 132 m€ deal to build a 110 MW solar power plants which can developed to 500 MW capacity.
- Quercus UK want to sign a 500 m€ deal to build a 600 MW solar power plants which can developed to 500 MW capacity.
- Solarwatt Germany applied to develop a 30MW PV power plant.
- Finergy Italia plans three PV projects totaling 10 MW.
- Durion Swiss and Adore Genramy operate two 10 MW Solar Plants in Kerman totally 27 m\$.
- METKA Greece operate a 10 MW Solar plant by Ghadir Investment Group in Isfahan.
- KPV Solar Austria want to develop a 50 MW Solar plant in Kerman.



## Investment Opportunities in Solar and Wind Projects

Location of Solar Project	Capacity (MW)	Required Investment Amount (\$MLN)
Yazd	100	200
Isfahan	100	200
Fars	100	200
Kerman	100	200
Sistan & Balouchestan	50	100
Qom	50	100
Semnan	50	100
Khorasan	50	100
<b>Total</b>	<b>600</b>	<b>1,200</b>

Location of Wind Project	Capacity (MW)	Required Investment Amount (\$MLN)
Razavi Khorasan – Khaf	750	1,300
Sistan & Balouchestan	650	1,150
Qazvin – Takestan	500	875
East Azerbaijan	250	450
<b>Total</b>	<b>2150</b>	<b>3,775</b>



## Section 5: Common questions relating to Iran

- ✓ The best Business strategy in Iran
- ✓ Is Iran a high risk country for business?
- ✓ How will USA approaches change things?

## The best Business strategy in Iran

- 1) JV in Know How Generation & Technology Transfer
- 2) JV in Project Execution
- 3) Consortium Formation on Project basis
- 4) Partnership with local companies







## Is Iran a high risk country for Business?

An easy and conventional answer to this question, based on risk rating reports would be: **No, it is not.**

**Firstly:** Look at the name of other countries which have the similar country risk rate with Iran and you will see they are not comparable with Iran in terms of many factors which matter for trade and investment

**Secondly:** Consider that the risk reports are retrospective, whereas investment is a prospective decision. A visionary investor invests on future trends not on the past circumstances. Iran is going to be a thriving economy in the years ahead and this certainty talks to an investor more than risk reports do.

**Thirdly:** Risk by itself doesn't say much. When it's combined with the pace and direction of change in risk and the rate and time span of return on investment, then one can get a clearer view and in this sense Iran is obviously ahead of other MENA region countries.

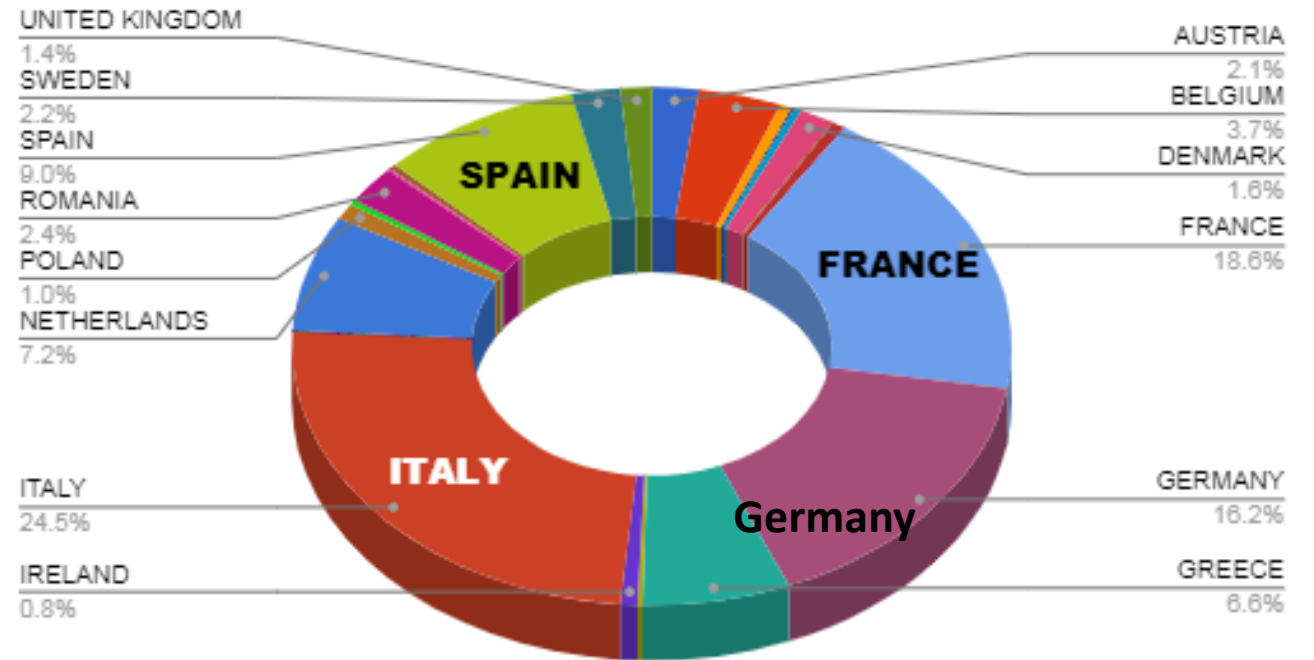
# Iran-EU Trade Tops €18b

## The 14 EU's main exporter countries to Iran

- Reactors, boilers, machinery, mechanical appliances and parts thereof (€2.5 billion)

Iran exported more than €9 billion worth of commodities to the EU

Iran's European Trade Partners (Jan-Nov 2017)





# Conclusion

At the end, for those whom peace and stability in the Middle East region matter, I want to raise this important point that

**“Iran is the last port of stability in the ME region.”**

Also to whom have these questions:

**Is Iran a high risk country for investment?**

**How will USA’s presidency approaches change things?**

I should say that, the externalities of the chaotic situation of the Middle East are putting great burdens on the world shoulders.

The recipes of military intervention, sanctions, political manipulations and the like for bringing order and “democracy” have all failed so far. The only approach in my opinion which would work is

**“business for peace”.**

**“Iran is the last anchorage of stability in the Middle East.”**



Thank you

