



# **E-waste Management in China**



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# 1 E-waste Definition and Amount



# 1.1 E-waste Definition



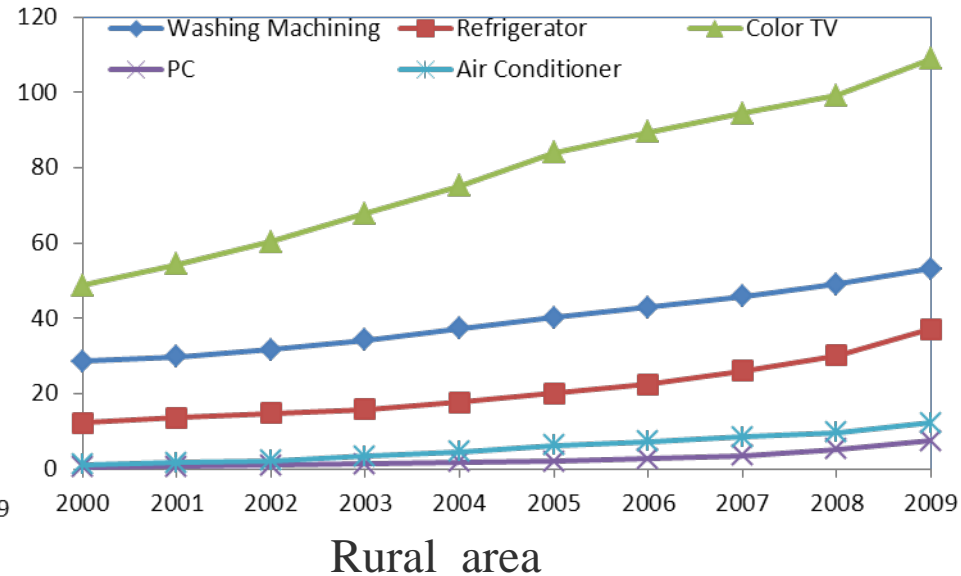
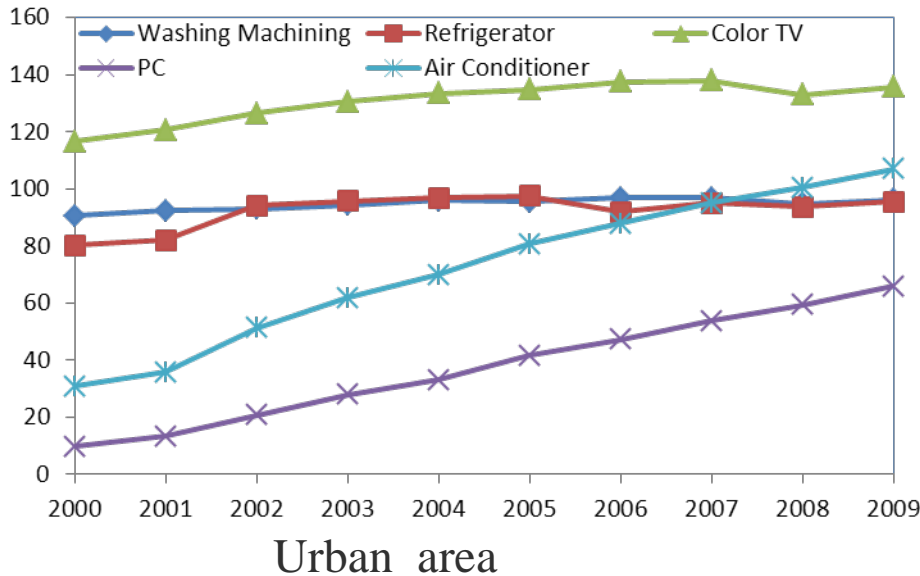
- the discarded electronic & electrical products or electronic & electrical equipment ,the discarded parts and components thereof, as well as the articles and substances that are subject to the management of electronic waste as prescribed by authorities;
- the obsolete products or equipment generated in the industrial production
- the obsolete semi-finished products and residues, the obsolete products generated in the repair
- renovation and reproduction of products or equipment
- the products or equipment discarded in the daily life or in the activities of providing services for daily life
- the products or equipment that is prohibited to be produced or imported by any law or regulation.

**Source:**Administrative Measures for the Prevention and Control of Environmental Pollution by Electronic Waste

# 1.2 Academic Generation



## E-waste generation amount from social source



The main electrical and electronic products /100house holds

The economic gap between the Urban and the Rural increase the amount of second-hand EEE and indeed diminish the real generation amount of e-waste.



## 1.2 Academic Generation



### E-waste generation amount from social source

- ④ The estimated annual generation amount of discarded electric and electronic products is about tens millions units, including TV, refrigerator, washing machine, air conditioner, PC.





## 2 New Progress on E-waste Management in China



## 2.1 E-waste Management Policies



### *‘Administration Regulation for the Collection and Treatment of Waste Electric and Electronic Products’ (issued by the State Council)*

- Issued by State Council
- Be effective as of January 1, 2011.



- Catalogue
- Collection
- Planning
- Permission
- Funds
- .....

This is expected to change the landscape for the informal waste handling sector, and will pursue the interest of formal and large scale operators in the field.

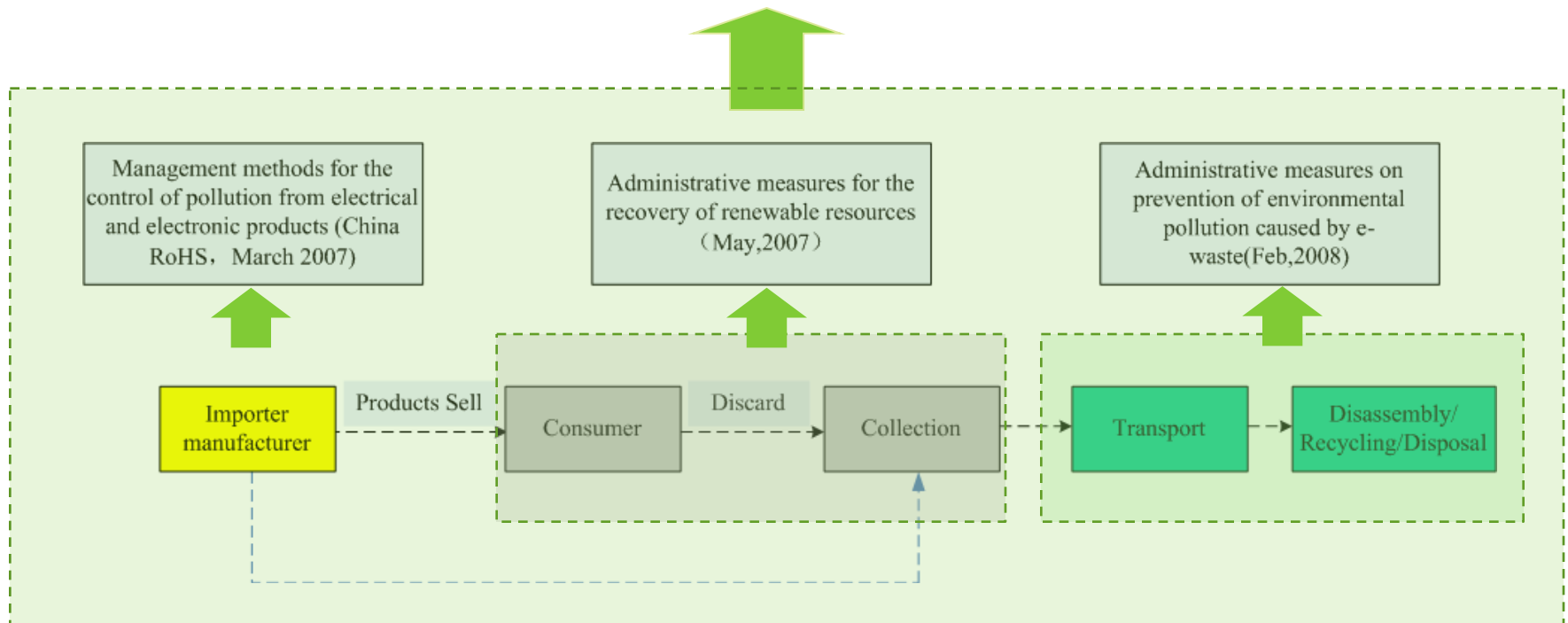


# 2.1 E-waste Management Policies



## 2.1.1 Macro management policy framework on e-waste

*Administration Regulation for the Collection and Treatment of Waste Electric and Electronic Products*



# 2.1 E-waste Management Policies



## 2.1.1 Bunch of management policy on e-waste

- ❑ Catalogue(the first batch)
- ❑ The guide for making e-waste treatment development planning
- ❑ Management Measure for E-waste Treatment Qualification Permission
- ❑ The guide for qualification examination and permission of waste electric and electronic products treatment facility
- ❑ The guide for subsidy auditing of waste electric and electronic products treatment facility
- ❑ The guide for information management system and data submitting of waste electric and electronic products treatment facility



# 2.1 E-waste Management Policies



## 2.1.2 Catalogue

Catalogue

Sep. 8, 2010



- Higher possession rate and obsolescent rate.
- Higher pollution to the environment and human health.

- Higher collection fee and difficult to treat.
- Significant benefit and need policy support.

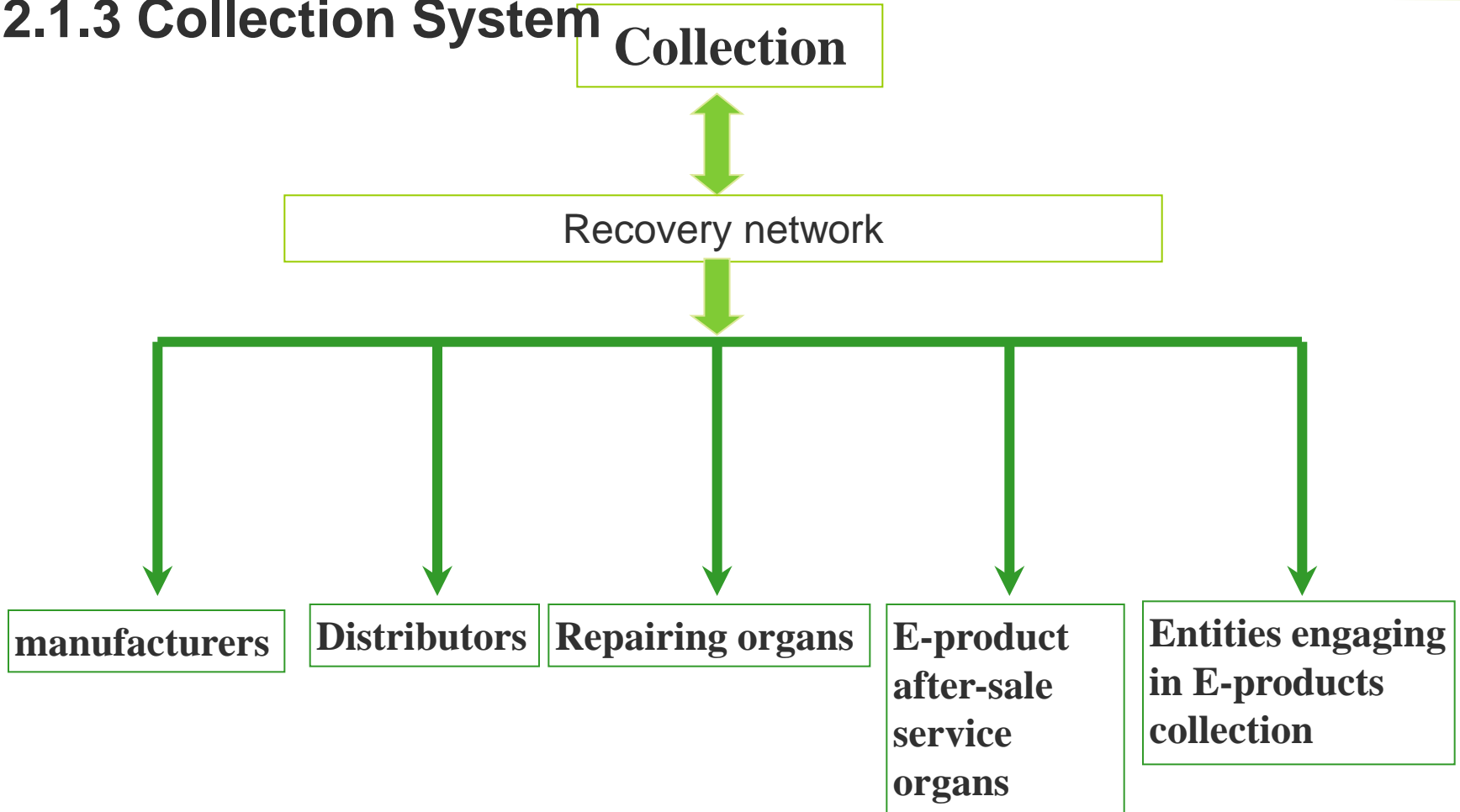
The first list



# 2.1 E-waste Management Policies



## 2.1.3 Collection System



# 2.1 E-waste Management Policies



## 2.1.4 E-waste Treatment Development Planning

➤ “The notification on making e-waste treatment development planning(2011-2015)(issued by MEP, NDRC, MIIT, MC, Sep. 27,2010)



- Specify development objectives
- Promote e-waste treatment industry development
- Development appropriate treatment techniques
- Promote collection net establishment
- Awareness raising by communication and education

The provincial planning should be put on record to the Ministry of Environmental Protection(MEP).

NDRC: notional development and reform commission, MIIT: ministry of industry and information technology, MC: ministry of commerce



# 2.1 E-waste Management Policies



## E-waste Treatment Development Planning

➤ The guide for making e-waste treatment development planning (issued by Nov.15,2010)



- Rational distribution
- Centralized treatment
- Control the quantity of facility



# 2.1 E-waste Management Policies



## 2.1.5 E-waste Treatment Qualification Permission

**Management Measure for E-waste Treatment Qualification Permission (issued by Dec. 15, 2010)**



# 2.1 E-waste Management Policies



## Management Measure for E-waste Treatment Qualification Permission

■ The management measures for e-waste treatment qualification permission including the details of application, examination and approval, supervision and inspection



- Range of Application (the first list)
- Technology requirements for facility  
(pollution abatement measures, monitoring, information system, personnel requirement.)
- Procedure  
(official authorization issued by environmental protection bureau of city )
- Required documents



# 2.1 E-waste Management Policies



**The guide for qualification examination and permission of waste electric and electronic products treatment facility(Dec. 9,2010)**



Area / type of facility	Designed capability (thousand ton/year)
The east/middle	10
The west	5
Only disposal the TV and PC monitor	5



# 2.1 E-waste Management Policies



## 2.1.6 Funds

Management measure for the levy and use of waste electric and electronic products treatment (draft)



- The fund was levied from the manufacturers and importers
- The fund was used to subsidize the e-waste treatment facilities

### Authority of management

- Strengthen the supervision and examination
- Punish the violation behavior





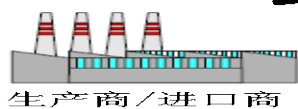
Funds



《条例》第七条：  
 ● 国家建立处理基金用于废弃电器电子产品回收处理费用的补贴。  
 ● 电器电子产品生产者、进口商和进口商按规定履行义务。  
 ● 财政部会同环境保护部、发展改革委、工业和信息化部制定基金的征收、管理和使用的具体办法。

submit

subsidy



生产商/进口商

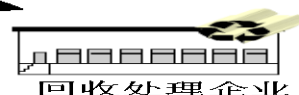
征收



Fund

Operation model of fund

补贴



回收处理企业

◆ 基金包括资金和组织两部分。其中，资金是用于回收处理废弃电器电子产品的资金；组织是为特定目标而专门管理和运作资金。

Manufacturer/  
importer

Collector/treat  
ment facility



## 2.1 E-waste Management Policies



**The guide for subsidy auditing of waste electric and electronic products treatment facility  
(issued by Nov. 16,2010)**

- Objective: to guide and normalize the local environmental protection authorities to audit the e-waste treatment quantity when the facility applying the fund.**
- Auditing authority: the provincial environmental protection department, leagued together with the experts in the field of tax department, accounting, e-waste treatment etc..**
- Key point of auditing: treatment quantity, key products, material balance**



# 2.1 E-waste Management Policies



## 2.1.7 Data and Information System

**The guide for information management system and data submitting of waste electric and electronic products treatment facility (issued by Nov. 16,2010)**

- Objective: to guide and normalize the e-waste treatment facility to setup the data and information management system met the requirement and submit the data and information.**
- Basic requirement: to follow the track of e-waste treatment process in the facility, the facility should submit the data daily through the system.**



# 2.2 “Old-for-New ” Policy



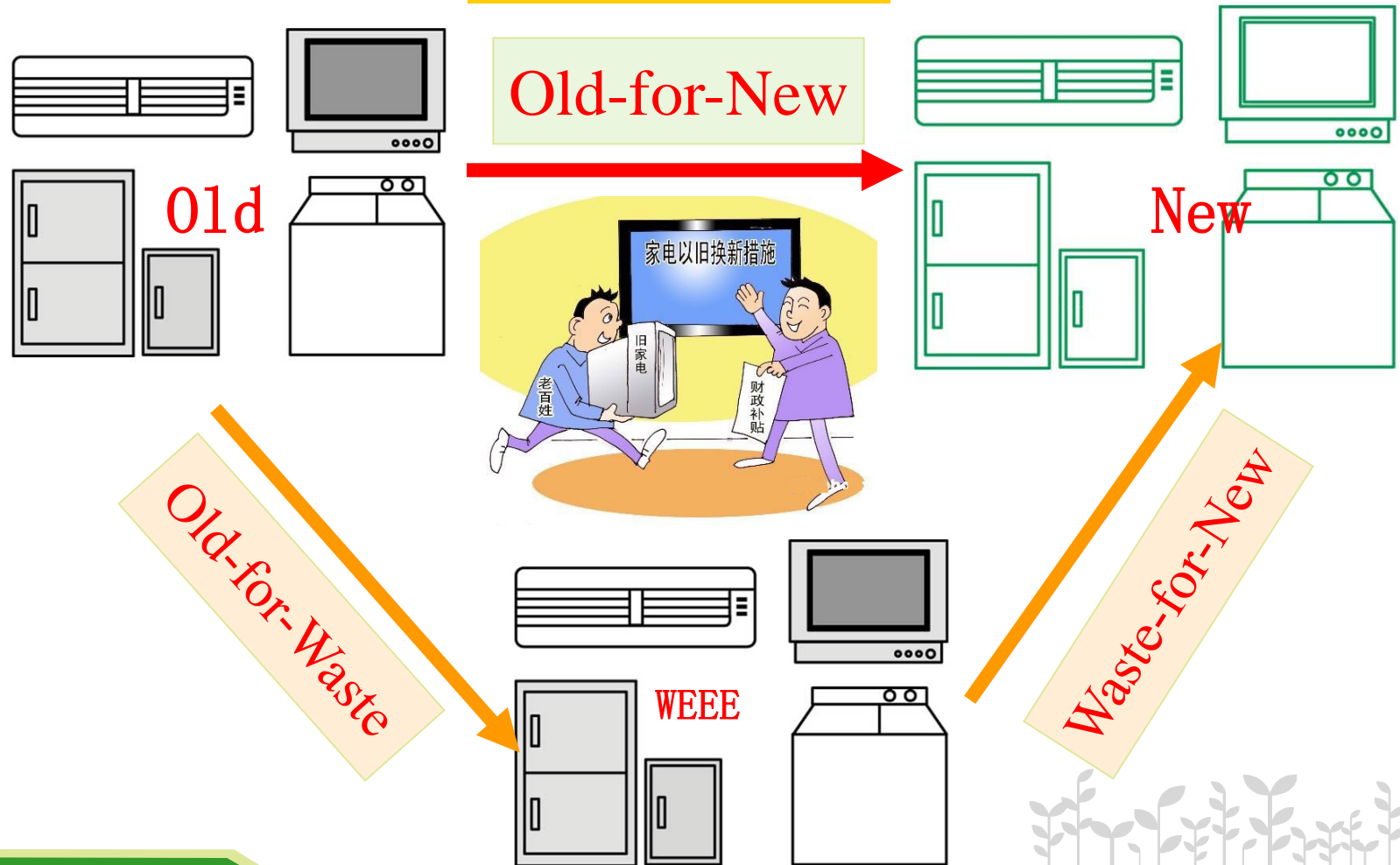
## 2.2.1 Objectives

- ❑ Tackle the economy crisis & boost domestic demands
- ❑ Developed a practical collection channel & funds operation mechanisms for the “regulation”
- ❑ Allowance objectives: consumers; collection transporters and recycling companies.
- ❑ Objective products: PCs, Air Conditioners, TVs, Washing machines and refrigerators





- First Period: June, 2009-May, 2010
- Second Period: June, 2010-Dec., 2011





## For Consumers: Subsidies for Old-for-New

Item	Subsidies (RMB/unit)
TV	$\leq 400$
Refrigerators	$\leq 300$
Washing Machine	$\leq 250$
Air Conditioners	$\leq 350$
PCs	$\leq 400$





## For Collection Enterprises: Transport Subsidies

Item	specification		Subsidies (RMB)	
			≤ 150 Km	> 150Km
TV	CRT TV	≤ 21 Inch	20	30
		> 21 Inch	30	40
	Flat TV	≤ 25 Inch	20	30
		> 25 Inch	25	35
Refrigerators	≤ 220 L		30	40
	> 220 L		40	50
Washing Machines	≤ 5 Kg		30	40
	> 5 Kg		40	50
Air Conditioners	Windows		20	30
	Wall		30	40
	Packaged		40	50
PCs	≤ 14 Inch		20	30
	> 14 Inch		25	35





## For Disassembly & Recycling Enterprises: Subsidies

Item	Subsidies (RMB/unit)
TV	15
Refrigerators	20
Washing Machine	5
Air Conditioners	0
PCs	15





## Overall treatment situation of e-waste from “Old-for-new”

	time	Received /unit	treatment /unit	treatment rate/%
Pilot area	2009. 6– 2010. 12	23, 846, 334	21, 680, 097	91
Expansion area	2010. 6– 2010. 12	2, 074, 529	1, 447, 454	70
total		25, 920, 863	23, 127, 551	89

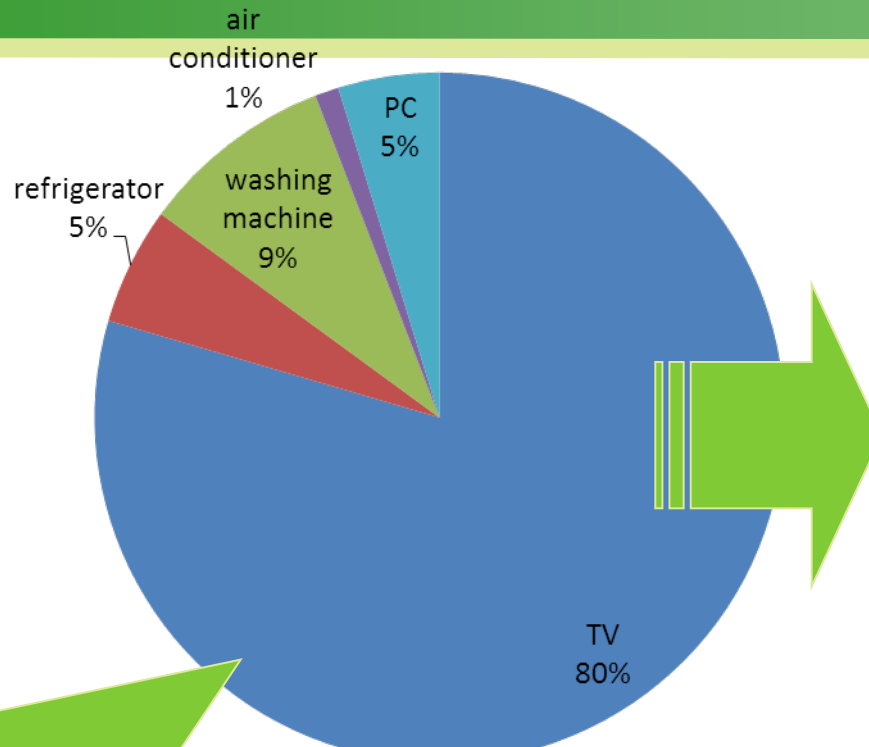
By Dec. 19,2010

By June 28,2011, the total amount of collected e-waste was 58 million units.





By the end of 2010,



glass	170
metal	60
plastic	70
others	20

Thousand ton

**By the end of May, 2010:**

- 22 specified treatment facilities
- Total treatment capability is 80 thousand unit/dayTotal designed capability is about 30 million unit annually
- The real collection amount is about 11.6 million units and disassembled about 9.4 million units.





■ The subsidy was responded by central(80%) and provincial(20%) finance.

■ During the implementation process, some problems have been found and solved.

■ The project provide lots of experiences for implementation of the regulation.

Given the revelation to the treatment list

Gained the experience on the treatment permission approval

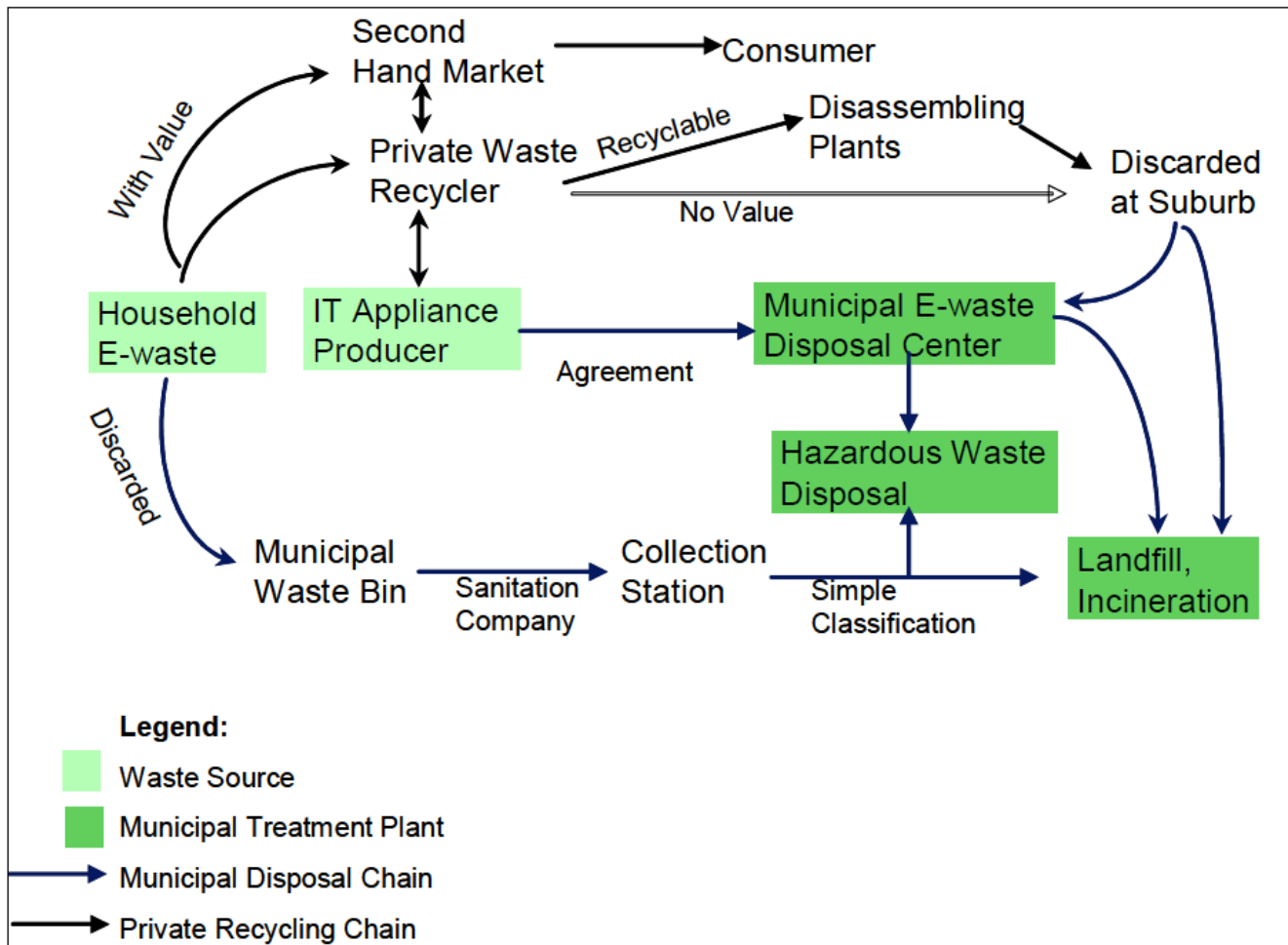
Gained the experience on the fund system

a Preliminary collection network was setup. Which was base on the sales network.





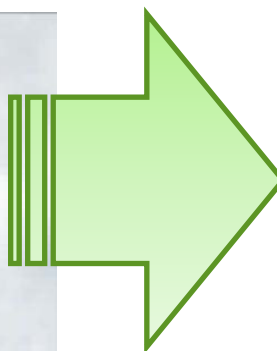
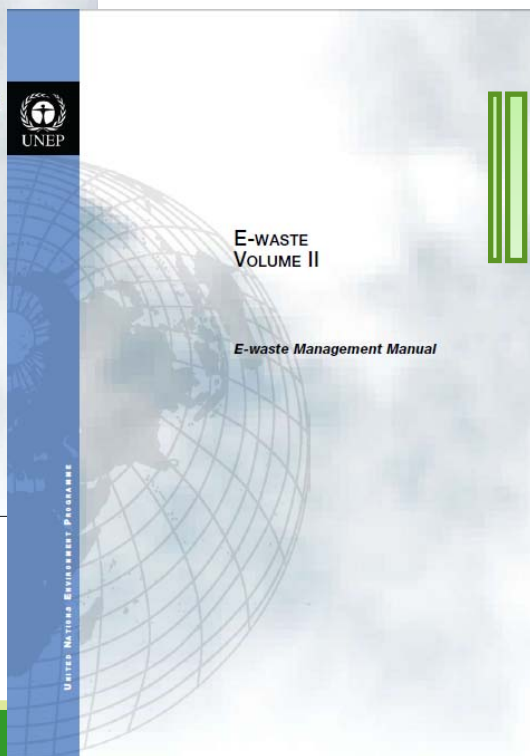
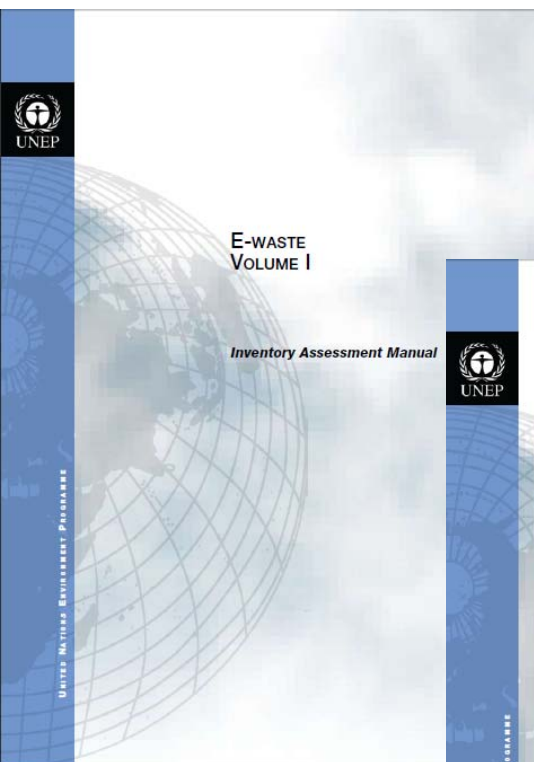
# E-waste Collection and Recycling in China



Source: Business Opportunities in the Fields of MSW, Sludge and E-waste in China. FEEE.



# Our effort



# 3. Future Prospect



- @ The average annual growth rate during the 12<sup>th</sup> five-year may be about 3%.
- @ It is expected that, 100 facilities will be built before 2015, and the expected capability will reach to 2000-3000 units annually.
- @ The problems were exposed:  
eg: No available technology and enough facilities to deal with waste CRT glass, LCD glass etc..





# Thank You!

More information about the “regulation” could be found at the website of MEP, <http://www.zhb.gov.cn/>

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