

Economic Growth and Port Development in Taiwan

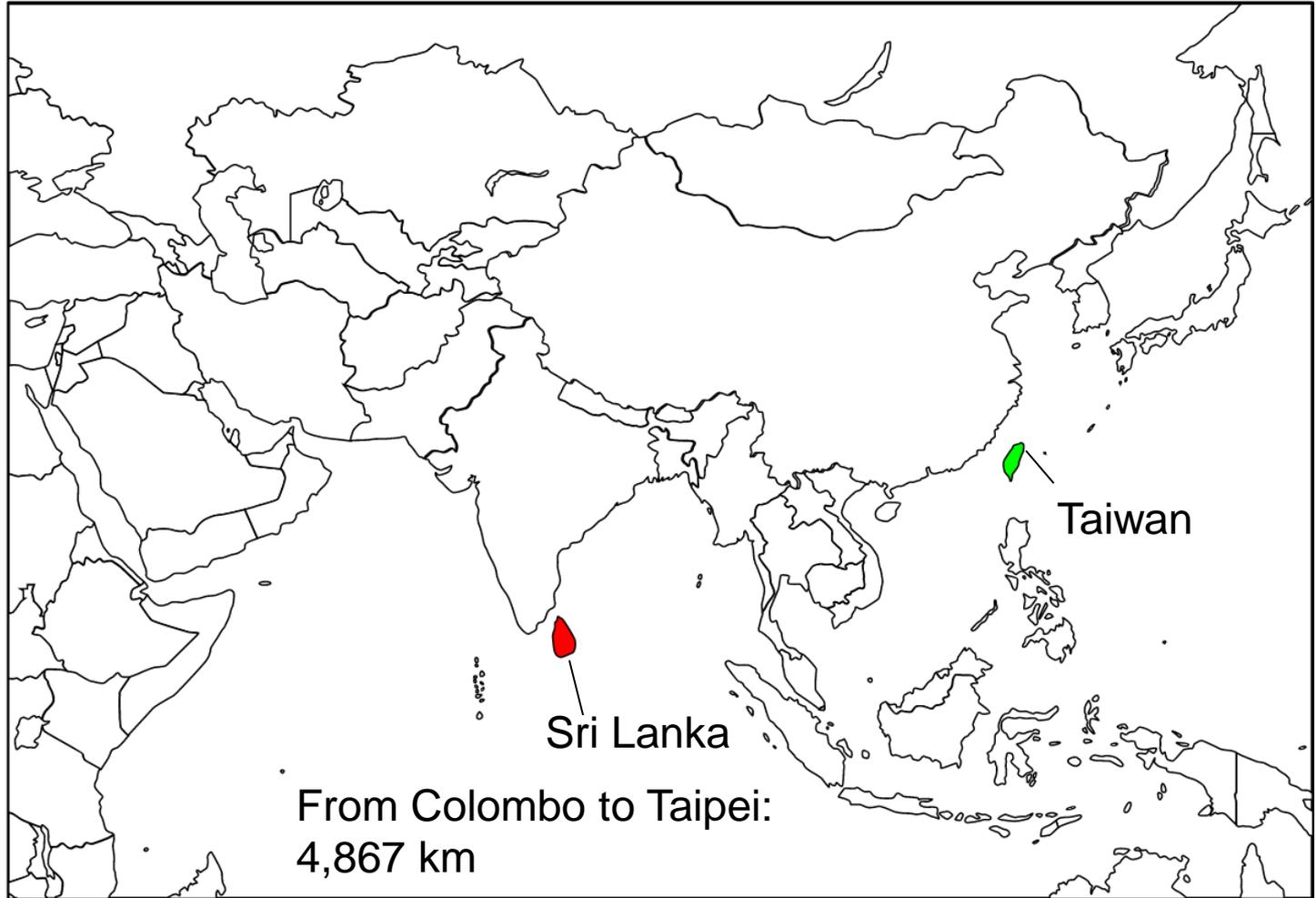
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Today's Presentation

1. Location of Taiwan and Main Ports in East Asia
2. Outline of Kaohsiung Port
3. What is EPZ?
4. Why Taiwanese government decided to establish EPZ?
5. For future of port and economic growth

1. Location of Taiwan and Main Ports in East Asia



Comparison between Sri Lanka and Taiwan

	Sri Lanka	Taiwan
Land Territory (km ²)	65.6	36.2
Population (Mil)	20.96	23.49
Near Big Power	India	China
Main Container Port	Colombo(27)	Kaohsiung(13)
Volume in 2015 (Mil TEU)	5.19	10.27

Sri Lanka and Taiwan are the island country. These countries are near big power. So, these countries are susceptible to the influence of India or China.

There are the representative port in Sri Lanka and Taiwan. The port of Colombo is the biggest port in South Asia, but the volume of one is the half volume of Kaohsiung port.

Main Port in East Asia



Note: (number) is the container port ranking in 2015.

Comparison of the Container Ports' Ranking

1995			2005			2015			
Port	Country	Volume	Port	Country	Volume	Port	Country	Volume	
1	Hong Kong	Hong Kong	12,550	Singapore		23,192	Shanghai		36,537
2	Singapore	Singapore	10,800	Hong Kong		22,427	Singapore		30,922
3	Kaohsiung	Taiwan	5,232	Shanghai	China	18,084	Shenzhen		24,204
4	Rotterdam	Netherlands	4,788	Shenzhen	China	16,197	Ningbo-Zhoushan	China	20,620
5	Busan	Korea	4,503	Busan		11,843	Hong Kong		20,114
6	Hamburg	Germany	2,890	Kaohsiung		9,741	Busan		19,469
7	Long Beach	USA	2,844	Rotterdam		9,300	Guangzhou	China	17,625
8	Yokohama	Japan	2,757	Hamburg		8,088	Qingdao	China	17,510
9	Los Angeles	USA	2,555	Dubai	UAE	7,619	Dubai		15,592
10	Antwerp	Belgium	2,329	Los Angeles		7,485	Tianjin	China	14,100
							Kaohsiung	(13)	10,264
	Columbo	(31)	1,049	(35)		2,455	(27)		5,185

(Source) 1995&2000: "Containerisation International Yearbook," 2015: "Top 100 Container Ports 2016."

The situation of container port has changed from 1995 to 2015. The container volume rapidly increased. Also, the local government in China invested port development. As a result, China is the center of container ports.

2. Outline of Kaohsiung Port

- Originally Kaohsiung Port was developed as a fishery port in the late 1600's
- In Japanese colonial era (1895-1945), the administrators carried out the expansion of Kaohsiung Port in several times.
- After 1956, Taiwanese (R.O.C.) government began to expand Kaohsiung Port (544ha). Under the construction of expansion, the government decided to develop the New Chung-tao Commercial Harbor Area (218ha) (1963 -1975).

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- 27 wharfs were constructed surrounding the Kaohsiung Export Processing Zone (EPZ) in this harbor.
 - There are a container center and 17 warehouses in this harbor.
- ⇒ As a result, Taiwan had a port closely related to EPZ.

高雄港總圖



Kaohsiung Export Processing Zone (Established 1966)

3. What is EPZ?

- EPZ
 - designed as bonded area
 - all products produced in EPZ have to export to other country
 - exemption or reduction from taxation (import tax, income tax, business tax, cargo tax etc.)
 - freely remit profit and dividend to headquarter
- ⇒ For a different systems in outside of EPZ, the companies which produce low cost moved into the EPZ.

➤ For Implemental Country or Region

(Merits)

- Securing the employment
- Acquisition of technology
- Acquisition of foreign currency
- Protection for domestic companies
- Acquisition of necessary information concerned about the growth of export company
- To invest for industry sector

(Demerit)

- Outbreak of “Export Enclave”

➤ For Companies

(Merits)

- Reduction of product costs (labor cost, fixed cost)
- favorable treatment for tax system

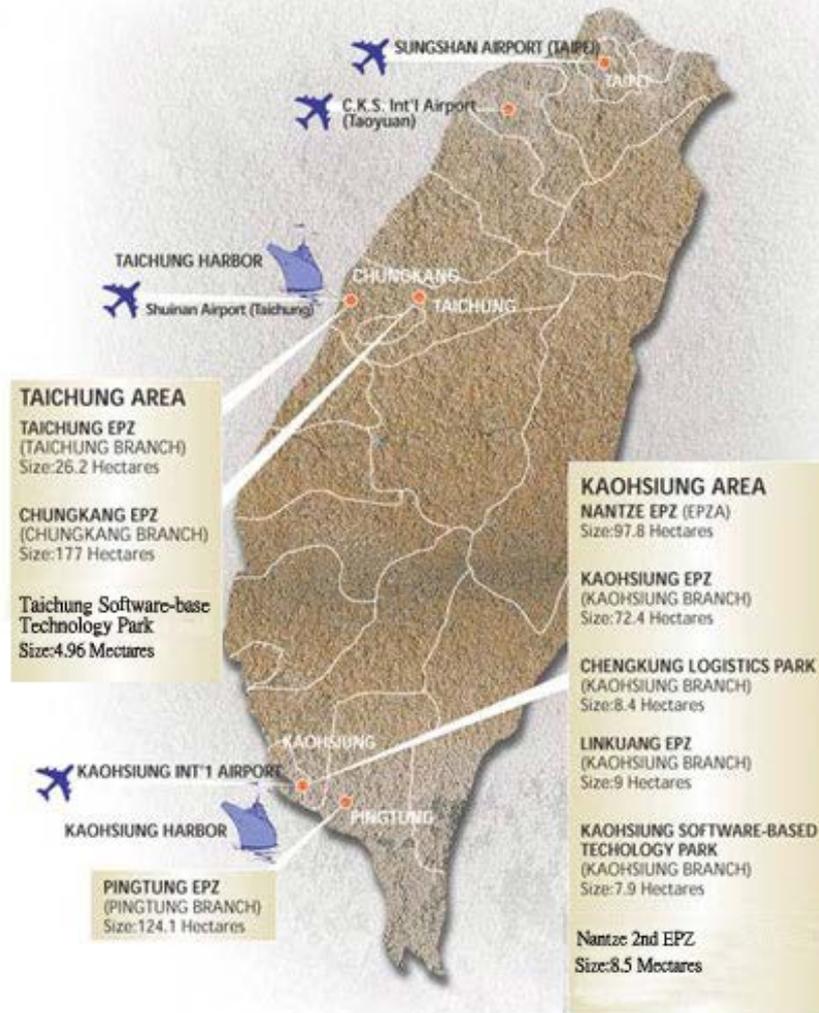
(Demerits)

- Impossibility for domestic market penetration
- Possibility for country risk

4. Why Taiwanese government decided to establish EPZ?

- Confliction with mainland China
 - USA government decided to stop the economic assistance to Taiwan
 - government's financial difficulty, foreign reserves shortage
 - increasing population and high unemployment rate
- ⇒ So, Taiwanese government had to do industrial development and economic growth in the country. As a result, the government decided to establish the EPZ. Goals of the EPZ are “Attract Foreign Industrial Investment,” “Explore External Trade,” “Increase Job Opportunity” and “Introduce Modern Technology.”

Map of EPZ in Taiwan



(Source) Export Processing Zone Administration

- 10 EPZs in Taiwan
- 503.3 ha
- Taichung:3
Kaohsiung:6
Pingtung:1
→Kaohsiung is the much EPZs.

Current EPZs in Taiwan

City	Name	Area (ha)	Establish	Main Industries
Taichung	Chungkang EPZ	177.28	2003	Display Panel
	Taichung EPZ	26.12	1971	Optics and Electronics
	Taichung Software Park	4.96	2013	Software, Digital Contents
Kaohsiung	Nanzih EPZ	92.33	1969	Semiconductor (packing andn testing)
	Nanzih Second Park	8.49	2011	
	Kaohsiung Software Park	7.92	2000	Software, Digital Contents
	Kaohsiung EPZ	72.38	1966	IC (packing and testing) LCD,
	Linkuang EPZ	8.96	1999	Optoelectronic
Pingtung	Cheng Kung Logistics Park	8.82	2007	Logistics, Warehousing
	Pingtung Park	123.04	2000	Water treatment and motor

Main industries are many ones from hardware to software.

Three EPZs are established in about 1970's, seven ones are in about 2000's.

Overview of EPZ in Taiwan

Time	Phase I 1966–1986	Phase II 1987–1996	Phase III 1997–2006	Phase IV 2007–2016	Phase V 2017– (Target)
Development Stage	Traditional Industries	Industries Adjustment	Transformation & Expansions	Industry Clustering	Smartly Value-added
Operation Models	Processing Assembly	Manufacturing	R&D Design Manufacturing Logistics	R&D Design Manufacturing Marketing Branding Logistics (Multi-modality)	Smart Management Operations
Product Evolution	OEM (Low-end)	OEM (Middle-end)	OEM (High-end)	High-Value-added	System Integrated
Main Product Goods	Clothings Black -white television Plastics Leather	Camera lenses IC Color Television Metal Products (Bolts, Nuts)	LCD IC (High and Intermediate-end) Optics Digital Camera	TFT-LCD High-end Key IC Digital Contents Information software Digital Contents	Systematic 3D AR (Augmented Reality)/ VR(Virtual Reality) Application Products Cloud Computing

⇒ During 50 years, the EPZs in Taiwan achieved the advancement of industry.

Merits of EPZ and Kaohsiung Port

- EPZ is close to port: omission for shipping time (especially container)
- increase of shipping cargo ⇒ actively port operations ⇒ priming new routes for shipping ⇒ more increase of shipping cargo
- Export ⇒ need inspection and customs work
- In the time of poorly infrastructure in outside of EPZ or Taiwan, it was reasonable for government to establish EPZ near harbor (port), and for company to move to EPZ.

		Container Volume in Kaohsiung Port							
		(Unit: TEU)							
		1973	1974	1975	1976	1977	1978	1979	1980
Import									
	Shipment Container	46,928	60,061	56,053	71,854	85,060	164,703	241,665	304,469
	Empty Container	39,839	36,487	56,624	91,994	95,511	130,319	145,928	169,532
Export									
	Shipment Container	78,154	90,011	106,217	147,965	168,219	266,818	366,700	469,092
	Empty Container	1,398	5,557	6,142	5,180	4,239	7,816	22,890	35,922
Total		166,319	192,116	225,036	316,993	353,029	569,656	777,183	979,015

(Source) Containerization International Yearbook, various issues.

This table shows in the era of two container centers (At present, there are five container centers in Kaohsiung Port). In that time, it is thought that a lot of containers in Kaohsiung port was related with EPZ.

Main Deregulation of EPZ

- Industry: Manufacturing (1966-87)
add Trading and Consultant (1988)
Physical Distribution, Repair (1997)
- Processing on commission: only in EPA (1966-73)
outside of EPZ less than 30% (1974-87)
no restriction (1988-)
- Market: only export (1966-85)
domestic market less than 20% (1986)
less than 50% (1988)
no restriction for domestic market (1997)

For future of port and economic growth

- Concentration of Port volume (7ports in Taiwan)
 - entering port for shipping 46.1%
 - cargo-handling capacity 46.1%
 - cargo weight: 62.4%
 - container volume 70.8%⇒Kaohsiung Port
- Management and Operation
 - Government control port management and policy
 - Government commission operator to operate port
 - * existence of global terminal operators
 - HPH, COSCO Pacific, CMHI, MTL in Hong Kong
 - DPW in UAE, and PSA in Singapore

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- Development of seaside
Petro chemistry (Singapore, Kaohsiung)
for domestic, for ship
Establishment of FTZ or EPZ
manufacturing sector and service sector
need three advancements
 1. industry (textile →mechanical)
 2. internal corporations
(labor intensive→capital intensive)
 3. products (cheap →expensive)
- *The improvement works of port facilities in India are delayed, it is the biggest opportunity for Sri Lanka.
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