

Session 9: Country Experiences and Lessons Learned ; Diversification Issues

-Case of Malaysia and Okinawa, Japan-

Southeast Asia and Pacific Department
Japan International Cooperation Agency (JICA)

Outline of the Presentation

- 1. Bird's eye view on diversification
- 2. What is the role of the state in diversifying the economy ?
- 3. Experience of Malaysia (Multi-sector agglomeration)
- 4. Experience of Okinawa, Japan (A few niche industries)
- 5. Lessons for Timor-Leste and way forward

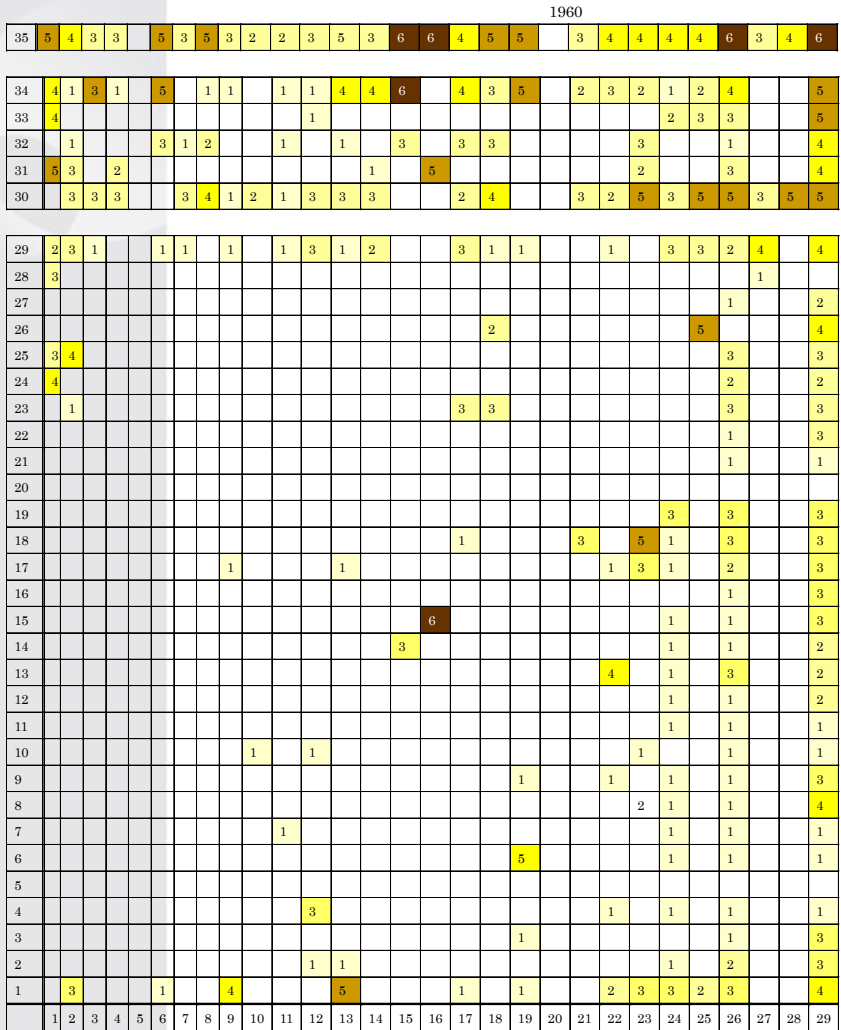
1-1. Bird's eye view on Diversification; Two types of diversification

- Type A: Multi-Sector Agglomeration
 - e.g. Malaysia

- Type B: Few-Niche Industries
 - e.g. Brunei Darussalam

1-2. Bird's eye view on diversification - (A) Multi-sector Agglomeration (1)

1960



1970

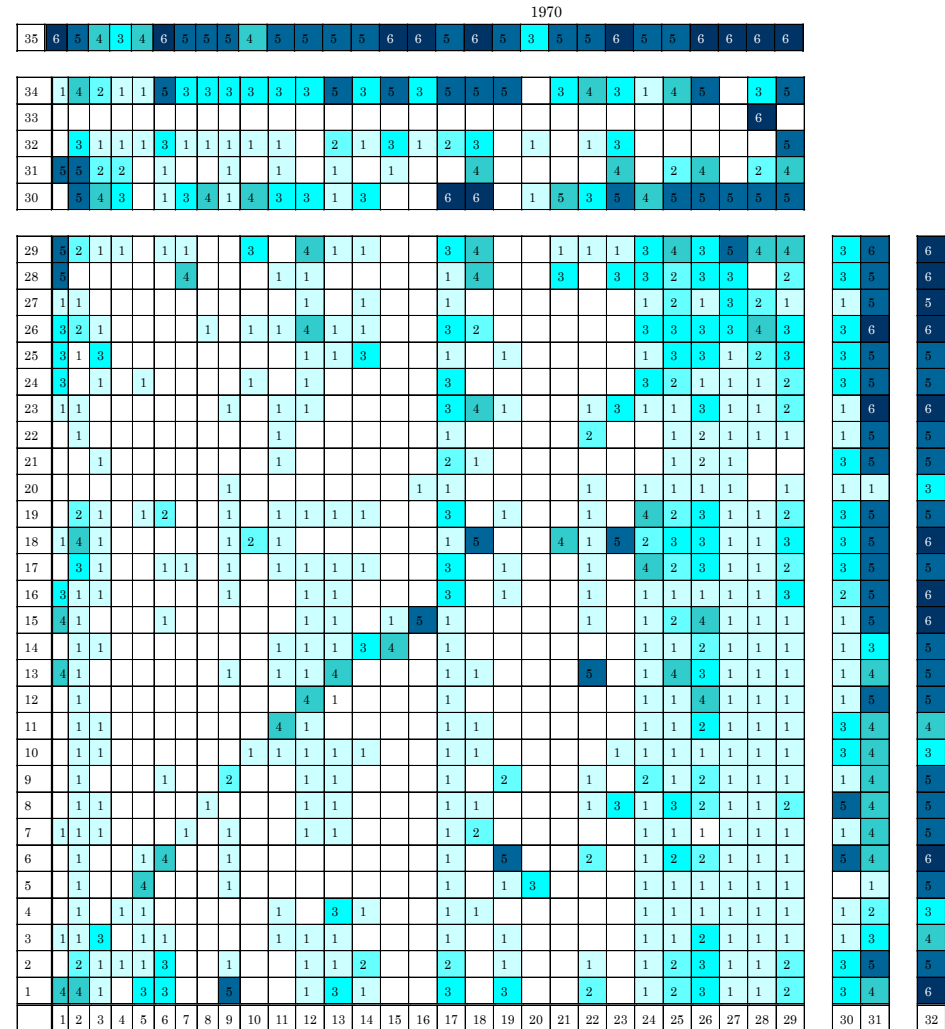


Figure 1: Malaysia I/O table of 1960, 1970
(source: Economic Development Theory; TORII, Yasuhiko, 1978)

1-3. Bird's eye view on diversification - (A) Multi-sector Agglomeration (2)

Table 1: Change in Economic Structure of Malaysia, 1970-2005

	Average annual growth rate (%)				Share of GDP (%)					Share of export (%)					Share of employment (%)				
	1970-79	1980-89	1990-99	2000-05	1970	1980	1990	2000	2005	1970	1980	1990	2000	2005	1970	1980	1990	2000	2005
Agriculture	6.1	4.2	2.2	3.8	32.3	24.6	15.2	8.8	8.7	60.2	43.8	22.3	6.1	7.0	69.5	39.7	26.0	18.3	14.6
Mining	8.6	5.9	8.5	2.3	5.8	4.6	11.8	10.9	15.2	26.4	34.3	17.8	7.2	9.8	3.4	1.7	0.6	0.3	0.4
Manufacturing	16.0	8.8	12.1	4.2	12.3	19.2	24.2	32.6	30.5	12.2	21.1	59.3	85.2	80.5	14.0	15.7	19.9	22.8	19.8
Construction	9.1	2.1	11.9	0.4	4.5	4.8	3.6	3.3	3.1	-	-	-	-	-	1.8	5.6	6.3	8.6	9.0
Services	9.3	7.6	12.8	6.3	45.0	46.8	46.4	48.3	46.2	-	-	-	-	-	11.3	37.3	47.2	50.0	56.2
Others ¹										1.2	0.8	0.6	1.5	2.7					

Source: Malaysia EPU (2006)

1-4. Bird's eye view on diversification - (B) A Few Niche Industries

million BND

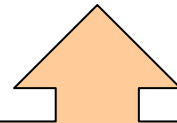
ACTIVITIES		ACTIVITIES					FINAL USES				Output
		Agriculture	Mining	Industry	Construction	Services	Private consumption	Government consumption	Investment	Exports	
No	PRODUCTS	1	2	3	4	5	6	7	8	9	10
1	Products of agriculture	19	28	10	1	67	100		6	2	232
2	Products of mining	17	2 007	364	85	134	3		40	9 794	12 445
3	Products of industry	0	73	44	28	283	591	4	112	67	1 203
4	Construction works	0	0	2	19	2	17		526		567
5	Services	23	221	109	168	1 126	2 394	3 865	741	396	9 042
6	Imports	21	277	106	136	670	1 308	285	589	872	4 263
7	Import duties	0	- 12	0	4	- 46	- 75		21	1	- 107
8	Salaries	92	308	163	85	3 335					3 983
9	Operating surplus	60	9 544	404	41	3 470					13 519
10	Input	232	12 445	1 203	567	9 042	4 338	4 154	2 036	11 132	
EXTENSIONS											
11	Investment (million BND)	7	277	80	229	1 253					1 847
12	Employment (1.000Persons)	3	5	16	12	129					165
13	Energy consumption (1.000 toe)	0	962	1 848	11	251	434			18 403	21 908
14	GHG gas emissions (1.000 tons of CO2)	0	1 281	2 772	33	435	832				5 353

Table 2: Input-Output table at basic price, 2005, Brunei Darussalam (source: PMO)

2-1. Need for diversification in resource rich countries

- Sustained return from increasing number of sectors
- Tradable sectors based on comparative advantage of the country (e.g., land and labor in addition to oil) and taking advantage of the access to international market
- Overseas workers not an exemption
- Non-tradable sectors catering to increasing domestic demand
- Investing in productivity increase in agriculture to release underemployed labor to growing sectors

••• Thus leading to long term sustainable growth



Question: How do we enhance diversification in a country like Timor-Leste? What is the role of the state?

2-2. Human resource in Timor-Leste in 2010 and 2030

Figure 2: Population by education level; 2010 in Timor-Leste

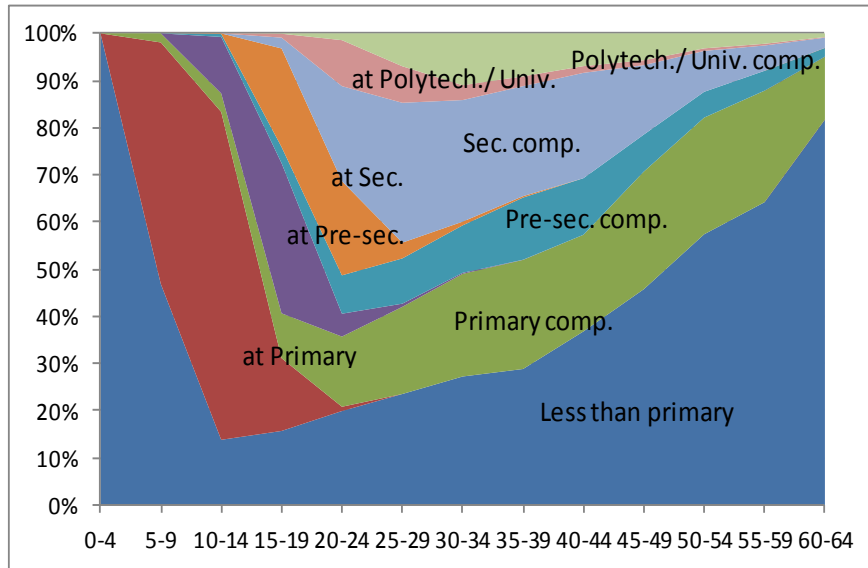
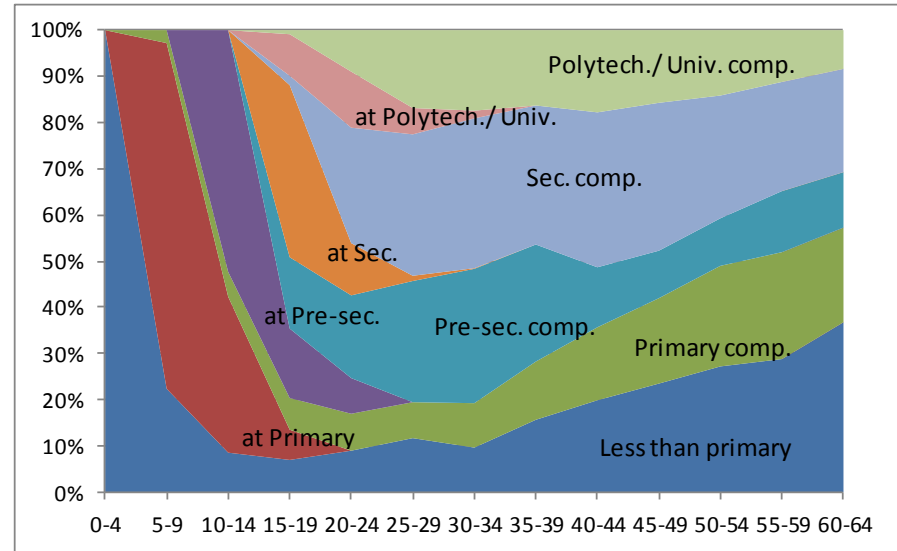
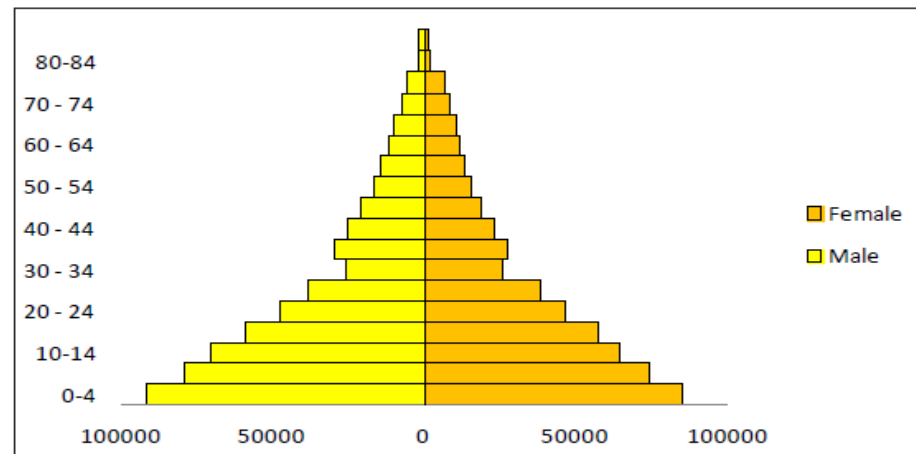


Figure 3: Population by education level; 2030 in Timor-Leste



Source: JICA LFP team

Figure 4: Adjusted census population Timor-Leste (2010)



Source: UNFPA

2-3. What is the role of the State in diversifying the economy? - Correcting market failure

- Short to medium-term time horizon
 - Improving investment climate (e.g., streamline customs procedure, business law)
 - Provision of public goods (e.g., infrastructure, economic zones)
 - Investing in productivity increase in agriculture

- Long term time horizon
 - Human resource development as precursor of diversification
 - Access to external market
 - Enhancement of SMEs

2-4. What is the role of the State in diversifying the economy? - Resource allocation

- Allocate the revenue from resource extraction to activities that correct market failure and promote diversification of the economy
 - Malaysia: Through regular budget
 - Timor-Leste: Petroleum Fund
 - (Resource poor Okinawa through central government support)

3-1. Experiences of Malaysia -Human resource development as precursor of diversification-

National Dev. Policies	Context	Actions	Human Resource Dev. Policy & actions
1956 – 1960s -1 st &2 nd Five Year Plan - 1 st Malaysia Plan	-Deeply depending on agriculture (from rubber to palm oil)	-Promote investment in industry	Education Act ('61) - language of instruction of Malay/English
1970s -NEP('70-'80) (under Outline Perspective Plan (OPP) '71-'90) -1 st & 2 nd Malaysia Plan	- Export orientation	-Investment climate -Public good provision including FTZ	Standard I ('70) -All gov't schools to be converted to Malay by '82
1980s -NEP (last 10 yrs) -3 rd M/P ('81-'85)	-Heavy industry promotion -heavily relying on SOE	-Link foreign capitals & domestic industries	Look East Policy (1982-) -Focus on pragmatic education on sci. & tech. -work ethics
-4 th Malaya Plan ('86-'90)	-Deregulation stage	-Promote private sector	4 th M/P (1986-1990) -Pragmatic knowledge on math. and science in primary edu. & tech. / mgt in higher edu.
1990s -NDP -6 th M/P ('96-'00) -Vision 2020	-Privatization stage -Manufacturing sector expanded	-Promote new areas of growth; intermediate and capital-intensive industries	Twining program -cost effective education system (e.g. JICA assisted HELP)

3-2. Experiences of Malaysia -Resource allocation-

Table 3: Budget for the five year plans in Malaysia

Unit: M\$ million

	1956-60 (1 st Five Year Plan)	1961-65 (2 nd Five Year Plan)	1966-70 (1 st Malaysia Plan)	1971-75 (2 nd MP)	1976-80 (3 rd MP)	1981-85 (4 th MP)	1985-90 (5 th MP)
Public investment	1,007	2,651 (163%)	4,242 (60%)	8,075 (90%)	10,828 (34%)	19,718 (82%)	13,379 (▲329%)
Economic sector	760	1,763 (132%)	2,685 (52%)	5,771 (115%)	5,893 (2%)	11,934 (103%)	8,668 (▲27%)
Agriculture	227	474 (109%)	686 (45%)	1,171 (71%)	2,029 (73%)	3,209 (58%)	2,774 (13%)
Education (under Social sector)	60	236 (293%)	329 (39%)	765 (133%)	672 (▲12%)	1,995 (197%)	2,159 (8%)

Source: EPU
Increase (%) in parenthesis

3-3. Experiences of Malaysia

-Planning ahead matters:

employment record of JICA-assisted HELP graduates-

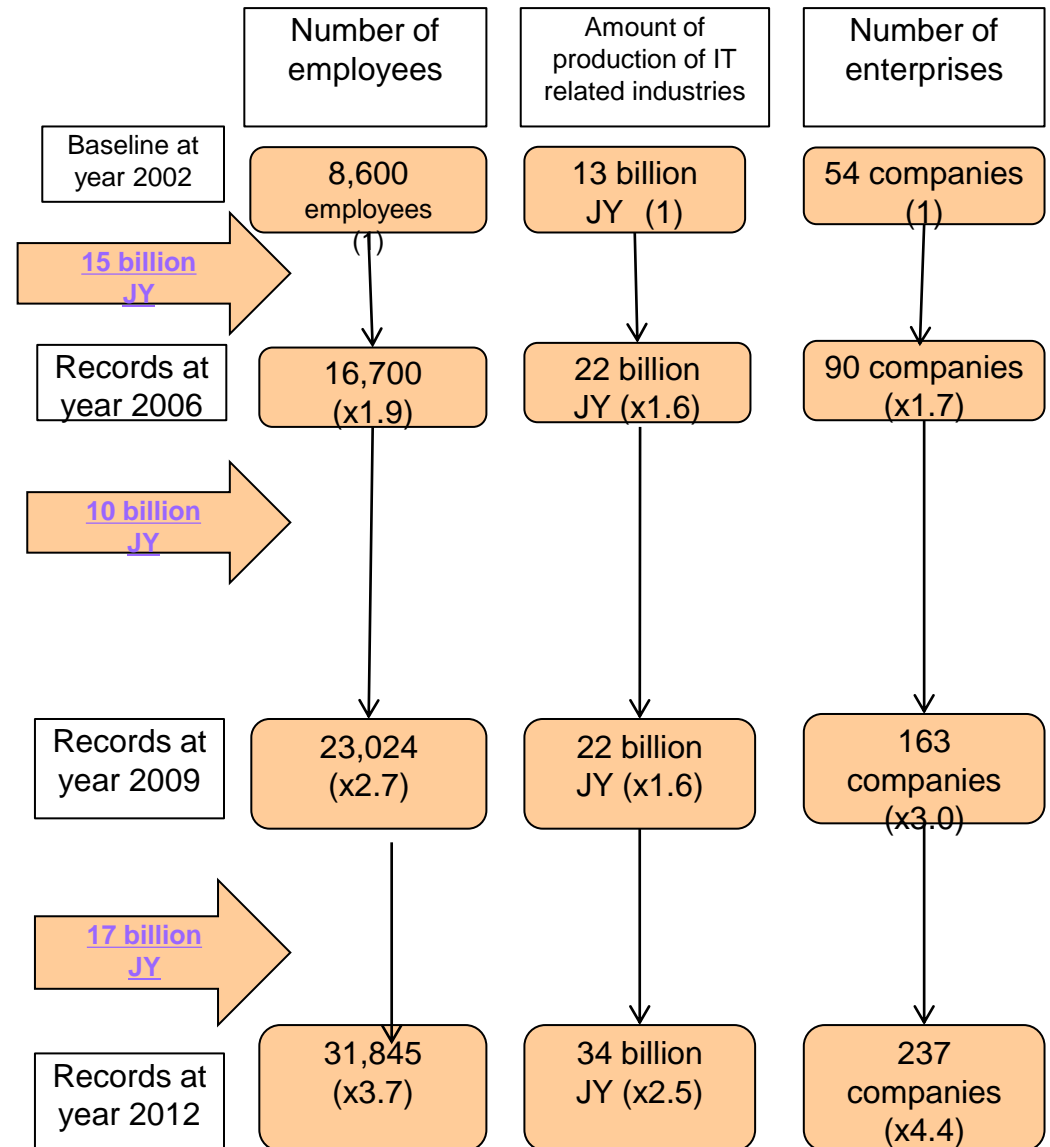
Year of graduation	Sector				Type of company				No. of graduates who employed
	Manufacturing	Service	Others	Total	Japanese	Malaysian	Others	Unknown	
1999	78%	20%	2%	100%	78%	20%	0%	2%	45
2000	76%	24%	0%	100%	71%	24%	0%	5%	42
2001	87%	13%	0%	100%	89%	10%	0%	2%	62
2002	96%	4%	0%	100%	96%	4%	0%	0%	25
2003	100%	0%	0%	100%	75%	17%	8%	0%	12
2004	93%	7%	0%	100%	72%	24%	3%	0%	29
2005	63%	37%	0%	100%	59%	41%	0%	0%	27
2006	91%	9%	0%	100%	82%	18%	0%	0%	44
2007	79%	18%	4%	100%	71%	25%	0%	4%	28
2008	81%	19%	0%	100%	78%	22%	0%	0%	27
Total	84%	16%	1%	100%	78%	20%	1%	1%	341

Table 4. Employment of HELP 1 & 2 graduates (undergraduate level) by sector and type of employer 1999-2008

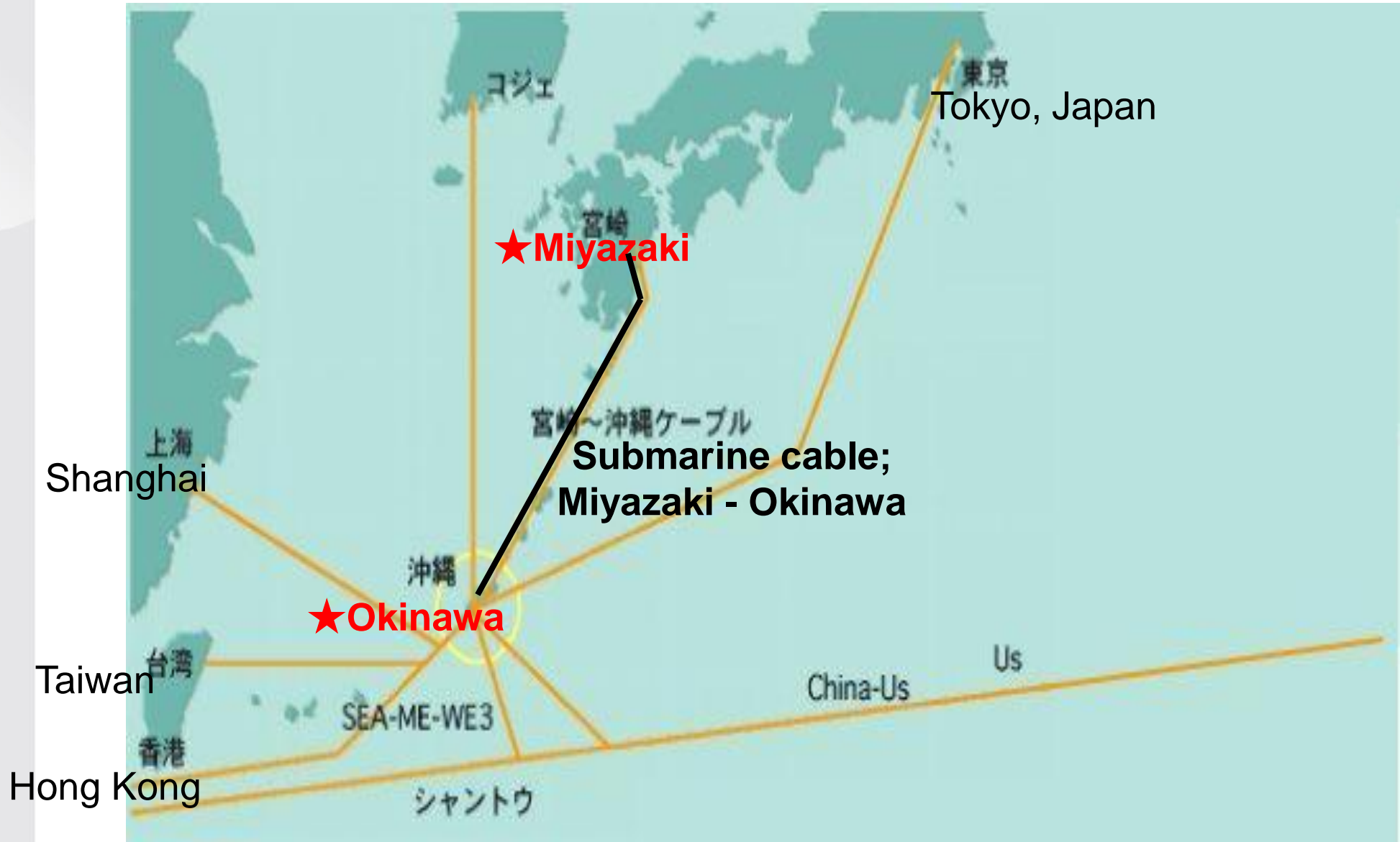
Source: JICA

4-1. Experiences of Okinawa in promoting IT based growth – Plan ahead

- | |
|---|
| <p><u>Phase I: 2004-2006</u></p> <ul style="list-style-type: none"> -Okinawa sector-wide dev't. plan -IT Special Zone -Information services, software dev't. -Tax reform for IT industry promotion |
| <p><u>Phase II: 2007-2009</u></p> <ul style="list-style-type: none"> -IT industry promotion system/institution -Invite enterprises, activate Okinawa based companies. -IT industry agglomerate and R&D -Human resource development -IT facility, IT environment |
| <p><u>Phase III: 2010-2013</u></p> <ul style="list-style-type: none"> -Value added- IT industry promotion system/institution -Invite enterprises, activate Okinawa based companies. -Advanced IT industry agglomerate, R&D -More Skilled Human resource development -Advanced IT facility, IT environment |



4-2. Okinawa submarine cable



4-3. Experiences of Okinawa - Resource allocation -

Budget Item	Unit: million JPY		
	1 st Okinawa IT development Plan (2004-2006)	2 nd Plan (2007-2009)	3 rd Plan (2010-2013)
Facility / Equipment	100,60	6,322 (▲37%)	11,550 (83%)
Human resource development	827	1,161 (40%)	2,229 (92%)
Communication cost subsidy	1,135	1,296 (14%)	1,235 (▲4%)
Software development subsidy	278	1,174 (322%)	1,839 (57%)
Contents development subsidy	1,760	144 (▲92%)	61 (▲58%)
Promotion activities	859	176 (▲79%)	217 (23%)

Table 5. Budget for IT development in Okinawa
(source; Okinawa Prefecture, increase (%) in parenthesis)

4-4. Experiences of Okinawa in promoting IT based growth – amount of production

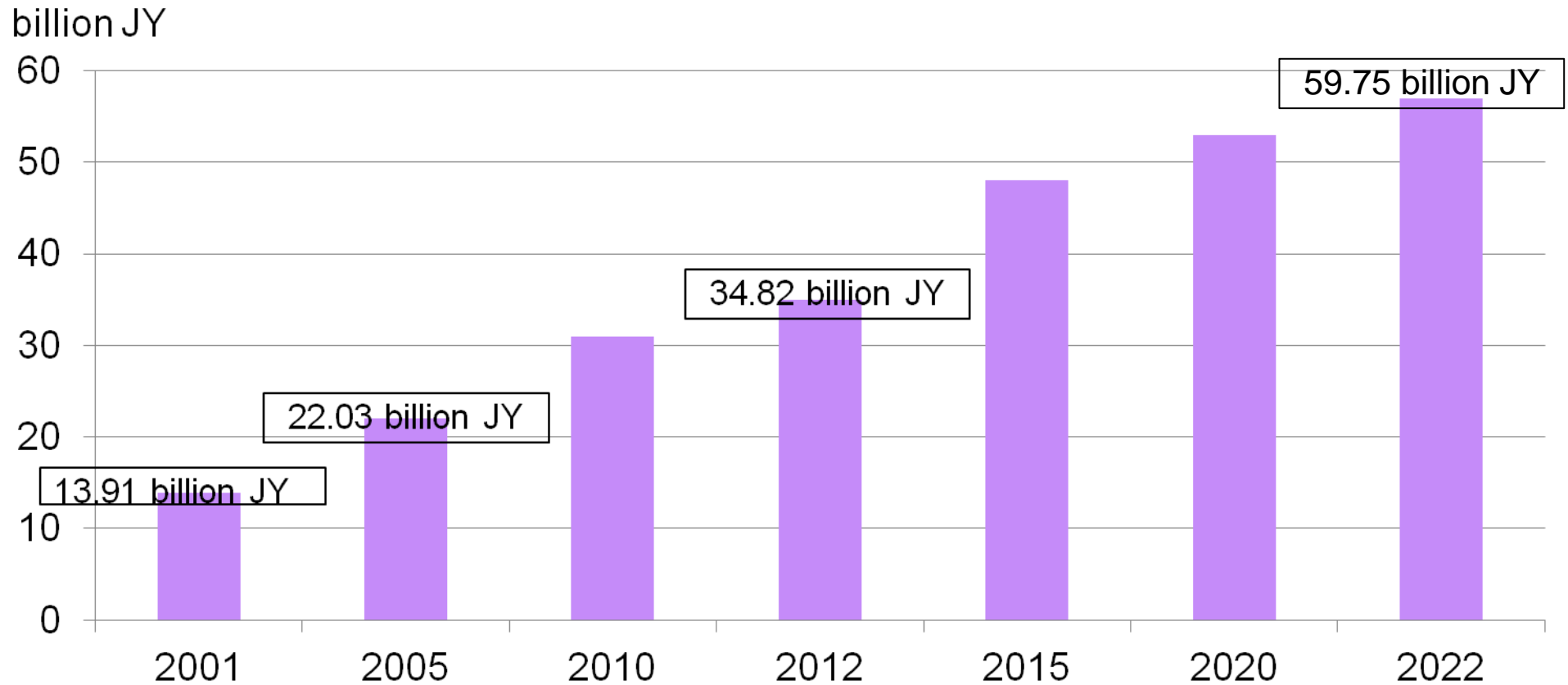


Figure 5. Actual and estimated production for next 10 years of IT sector
 Source: Okinawa Prefecture

4-5. Experiences of Okinawa in promoting IT based growth – employment

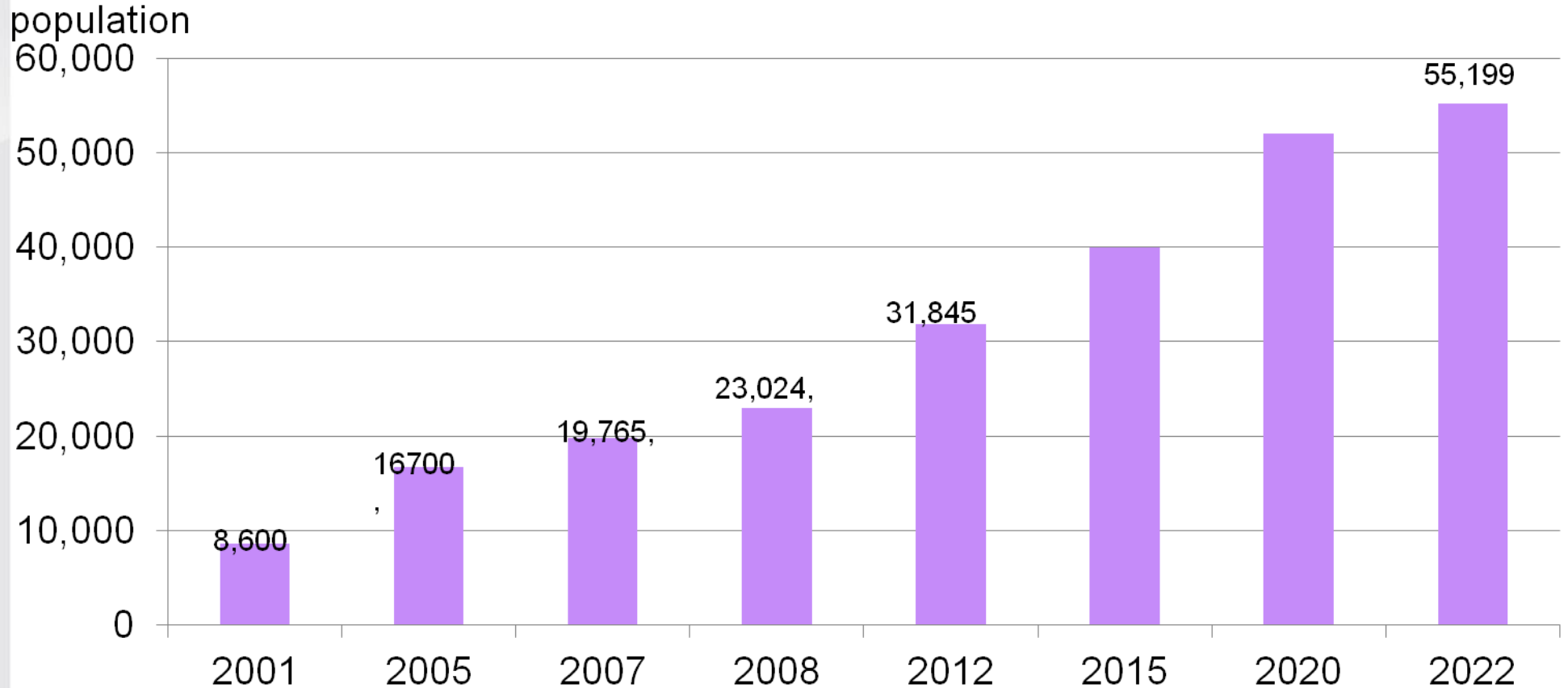


Figure 6. Actual and estimated employment for next 10 years of IT sector
 Source: Okinawa Pref.

5. Lessons learned

- Strategic options for diversification
 - ✓ Multi-sector agglomeration
 - ✓ A few niche-industries
- Correcting market failure
 - ✓ In particular, plan ahead in human resource development
- Resource allocation
 - ✓ how to best use the petroleum fund towards the selected strategy