

TOWARD INDUSTRIALIZATION WITH QUALITY

Remaining Issues at the End of Ethiopia-Japan Industrial Policy Dialogue Phase 2



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Addis Ababa, October 2015

Ethiopia-Japan Industrial Policy Dialogue

2008 2009 2010 2011 2012 2013 2014 2015 2016 ...

PM Meles

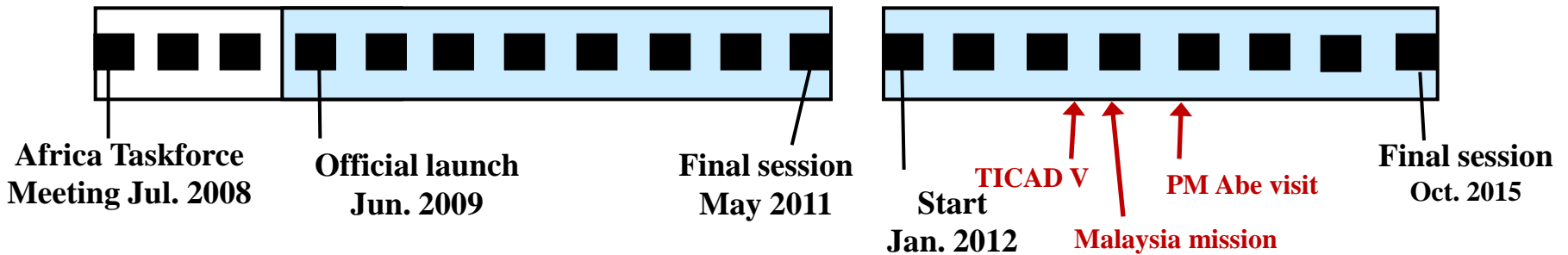
PM Hailemariam

Industrial Policy Dialogue

Preparation

Phase 1 (2009-11)

Phase 2 (2012-15)



**JICA's
Industrial
Cooperation**



Note: Black boxes indicate three-level policy dialogue in Addis Ababa (PM, ministers, operational level).

Activity Record

Preparation (2008-2009)—3 meetings with PM Meles

Phase 1 (2009-2011)—8 High Level Forums

DD, ADLI, East Asian policy methods, steel & metal survey, kaizen, national productivity movements, GTP1

Phase 2 (2012-2015)—8 High Level Forums

Export promotion, champion products, FDI attraction, FDI linkage & technology transfer, light manufacturing vision, handholding, industrial zones, national branding, GTP2

- **Substantive meetings** with PM Meles (10 sessions) and PM Hailemariam (11 sessions)
- **Policy study missions** dispatched to 7 African countries and 8 Asian countries (not counting Ethiopia & Japan)
- **High-level policy letters**—13 letters to/from PM, 5 letters to other leaders

Final Report: Main Review Paper

Part I. Background and Overview

1. Policy evolution
2. Where Ethiopia stands
3. Three business advantages
4. The Flying Geese pattern
5. Avoiding a future trap

Part II. Basic Direction

6. FDI-led industrialization
7. The wage-productivity nexus
8. Industrial policy timeline

Part III. Key Policy Components

9. Kaizen & national productivity movement
10. Industrial parks

11. Linkage formation

12. Handholding

13. Champion products and national branding

14. General business climate

Part IV. Assessing GTP2

Part V. Action Plan for Japan and Ethiopia

BASIC DIRECTION

Where Ethiopia Stands Now

- ❑ The Ethiopian government is fast, dynamic, and result-oriented. Will to industrialize is strong and pervasive.
- ❑ Active policy learning & experimentation—especially from East Asia but also from anywhere if useful.
- ❑ Policy leads and responds to new economic situations. At present, for attracting quality manufacturing FDI inflow, industrial zones are selected as key policy focus.

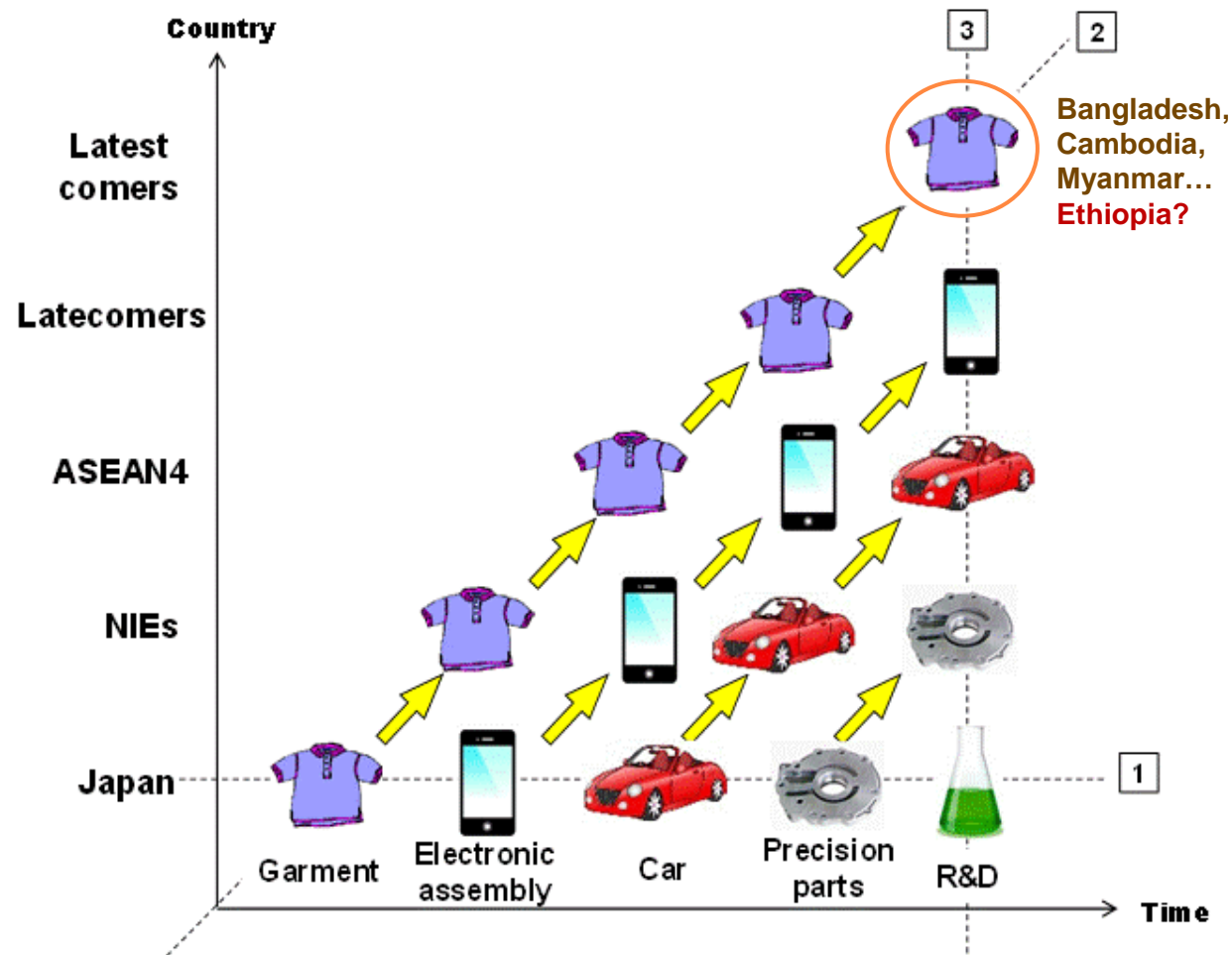
However,

- ❑ Ethiopia's achievement is still limited in income, manufacturing, and FDI accumulation & linkage.
- ❑ Though improving, industrial policy capability is still low and needs to be enhanced significantly.
- ❑ Business climate is very poor by international standards.

Flying Geese Pattern of East Asia

East Asia industrialized as industries were passed from advanced countries to latecomers via FDI (yellow arrows).

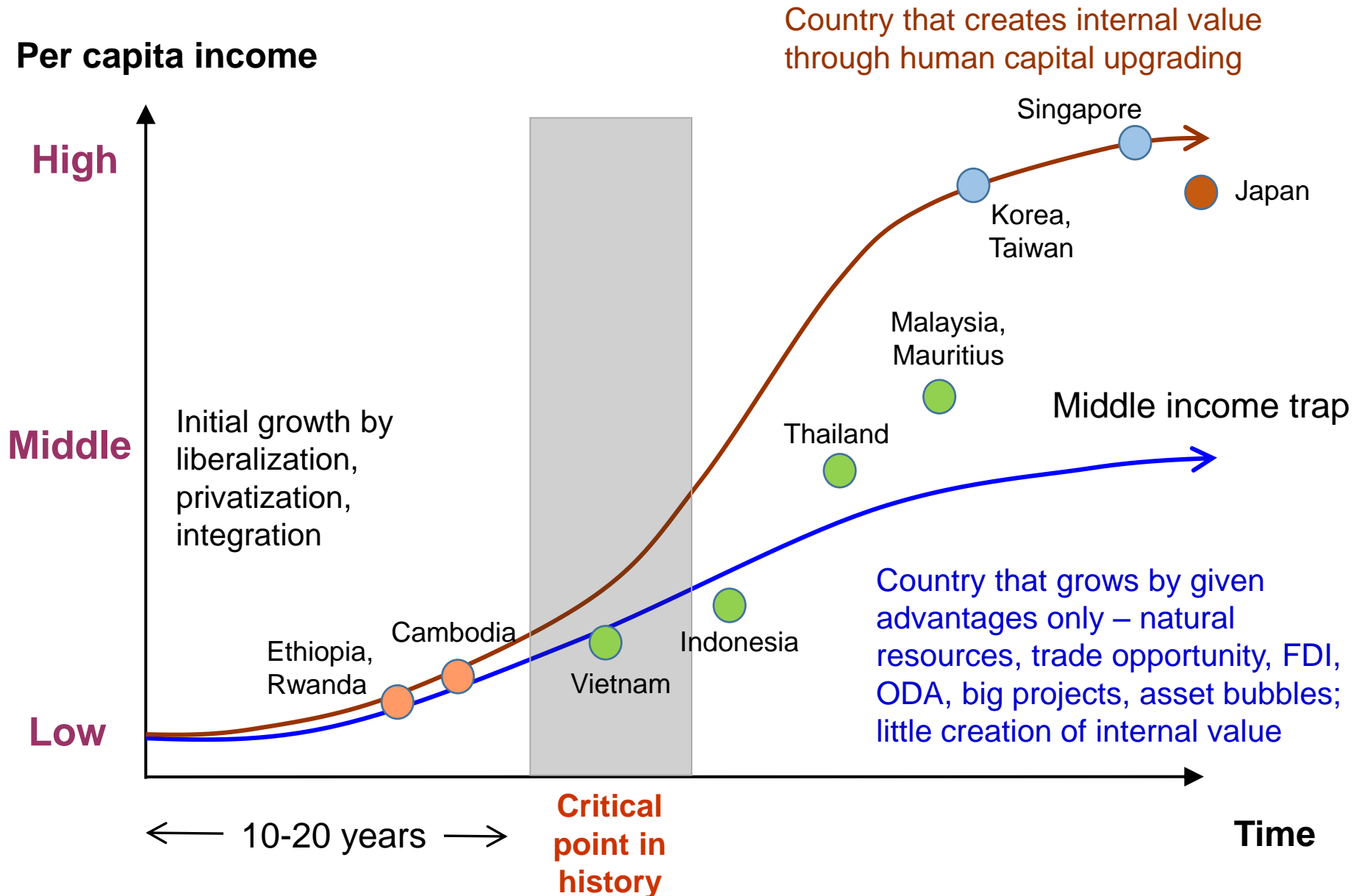
- Latecomers always start with garment & simple assembly.
- Some flying geese are now looking to Ethiopia as the next destination of light manufacturing.
- If that happens in sufficient volume, it means East Asia's production network has reached Africa (also from India, EU & US).



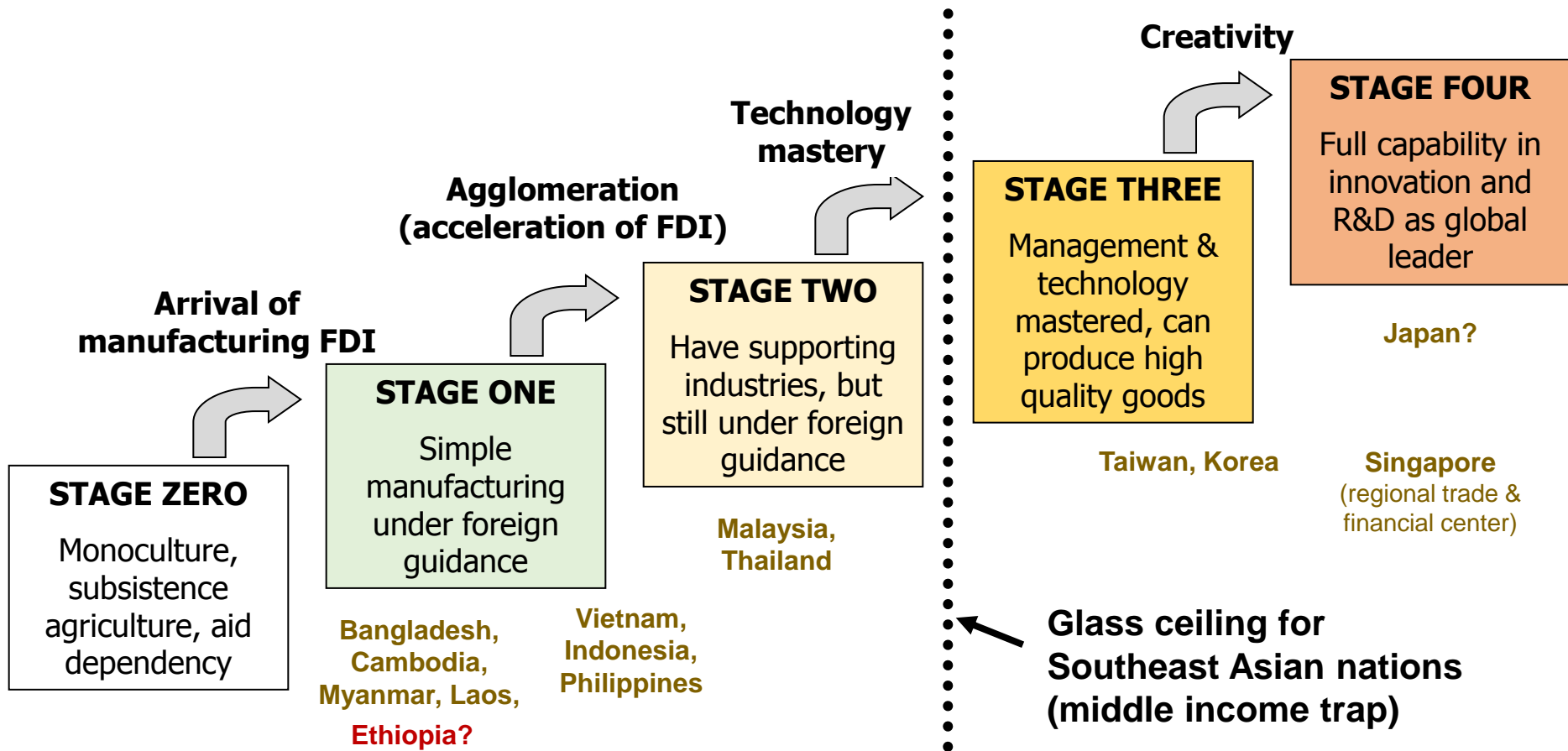
Avoiding a Middle Income Trap

- ❑ A middle income trap is a situation where growth is generated by **given advantages** (natural resources, aid, FDI, big projects, etc.) and not by **internal value creation** of domestic firms and citizens.
- ❑ Ethiopia, even at low income, should start worrying about the trap because it could happen at any income. It is just that the trap becomes more visible at middle income (growth slowdown).
- ❑ Ethiopia's double-digit growth seems to have been driven by liberalization, FDI, ODA, public investment & property bubbles. The growth source must shift to productivity, competitiveness, and emergence of new industries.

Why Do Countries Diverge?



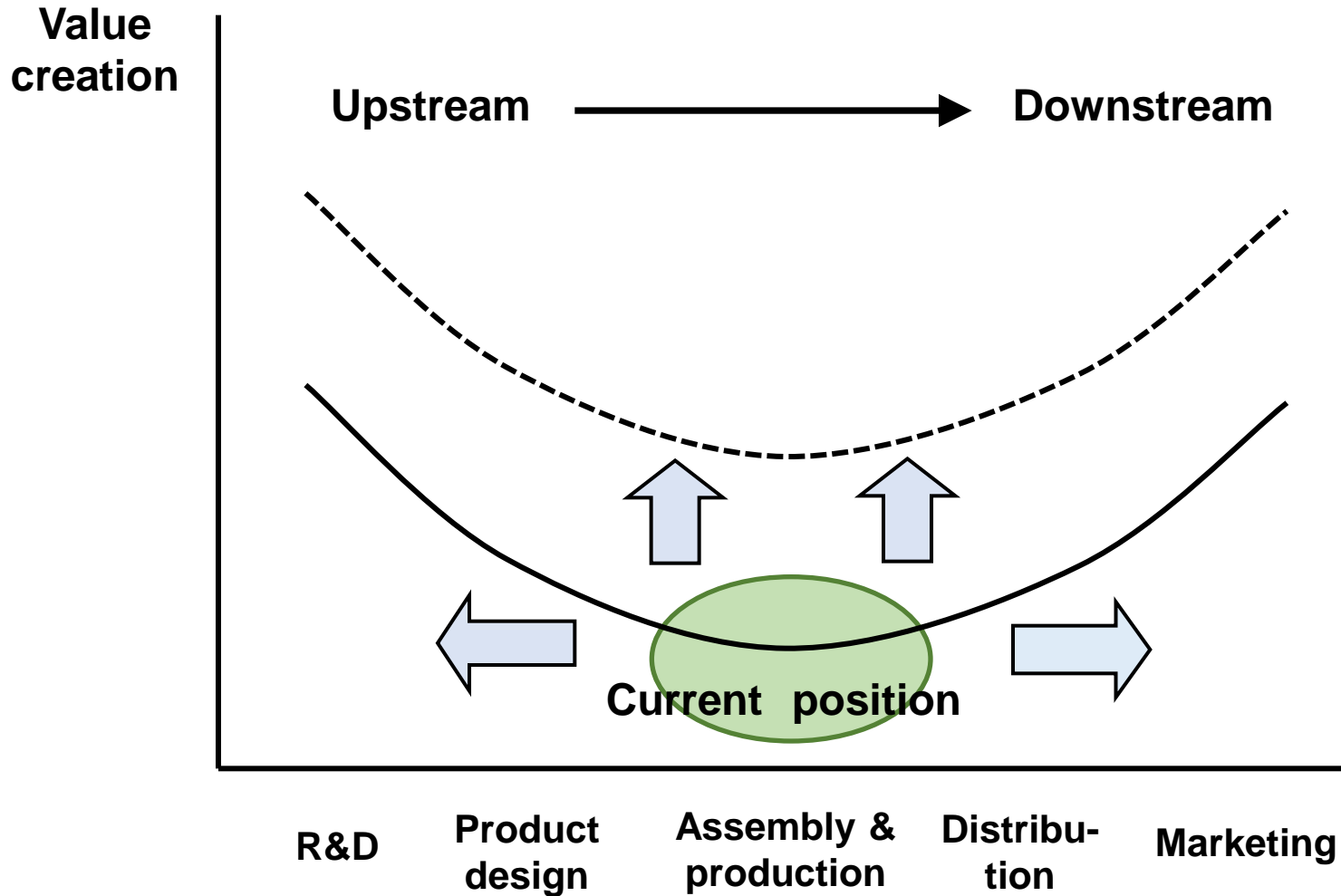
Stages of Catch-Up Industrialization



Pre-industrialization	Initial FDI absorption	Internalizing parts & components	Internalizing skills & technology	Internalizing innovation
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Malaysia: Manufacturing ++

Horizontal expansion to cover more value-creating processes & upward improvement along the entire curve.



Source: the Second Industrial Master Plan 1996-2005, an interview with Malaysian industrial planning officials in 2006, and the website of the Ministry of International Trade and Industry of Malaysia.

Low Policy Quality Causes Middle Income Traps

Kenichi Ohno, “The Quality of Industrial Policy as a Determinant of Middle Income Traps,” a paper presented at Singapore Economic Review Conference 2015, Singapore, August 2015.

Hypothesis—the lack of quality in industrial policy is the main cause of a middle income trap.

Corollary—proactive industrial policy to support value creation of the private sector is required to escape the trap.

Preliminary analysis—comparison of 13 governments in Asia and Africa shows that:

- Policy quality differs greatly across countries.
- Policy quality is highly correlated with per capita income (+0.815).
- Within each country, quality of various policy components is similar.
- Resource endowment does not seem to affect policy quality.

The Scorecard for Ethiopia

Date: October 2015 (based on policy research 2008-2015)

	Evaluation of industrial policy sub-components										Average
	Industrial human resource	Domestic enterprise development	Business climate	Power and logistics	Export promotion	Strategic FDI marketing	Industrial parks	Supporting industries & FDI-local firm linkage	Productivity, technology & innovation	Standards and testing	
Policy ownership	5	3	3	4	5	5	5	3	5	2	4.0
Vision & commitment of top leader(s)	5	3	3	4	5	5	5	4	4	3	4.1
Policy drafting procedure	2	1	2	2	3	4	4	1	3	2	2.4
Authority & capacity of policy organizations	3	2	2	3	3	4	5	2	2	2	2.8
Mindset & competency of individual officials	3	2	1	2	4	4	4	2	3	2	2.7
Budgeting & staffing	4	2	2	4	5	5	5	1	3	2	3.3
Inter-ministerial coordination	1	1	1	3	3	3	3	2	3	1	2.1
Involvement of key non-official stakeholders	2	2	2	3	3	3	3	2	3	2	2.5
Monitoring & evaluating mechanisms	3	1	1	2	5	5	5	1	3	2	2.8
Impact on real economy	2	2	0	4	3	5	5	2	3	2	2.8
AVERAGE	3.0	1.9	1.7	3.1	3.9	4.3	4.4	2.0	3.2	2.0	3.0
GRADE	B	D	D	B	B	A	A	B	B	C	B -
Remark	TVET, engineering universities	Fragmented	Limited action to improve business climate	Infrastructure still deficient but improving	Good policy; execution needs more improvement	Main policy focus; good results	Main policy focus	Policy will exist; further development required	Strong political will; kaizen & national movement	TIDI, LIDI, etc.; but generally under-developed	

Notes:

- Evaluation: 0 (non-existent or worse), 1 (little), 2 (some), 3 (moderate), 4 (good), 5 (excellent).
- Evaluation of policy prepared and implemented by government only; results obtained by private effort, international cooperation or external conditions are not included.
- Letter grades: A+ (4.5 or above), A (<4.5), B (<4), C (<3), D (<2), F (<1).

International Comparison of Industrial Policy Quality

	Date of research	Evaluation of industrial policy sub-components										Average	Grade	For reference only	
		Industrial human resource	Domestic enterprise development	Business climate	Power and logistics	Export promotion	Strategic FDI marketing	Industrial parks	Supporting industries & FDI-local firm linkage	Productivity, technology & innovation	Standards and testing			Per capita income (WB, 2013, USD)	Doing Business ranking (WB, 2014, among 189 entries)
Singapore	Aug.-Sep. 2010	5	4	5	5	4	5	5	4	5	5	4.7	A +	\$55,183	1
Japan	Continuous	5	5	4	5	4	3	3	...	4	5	4.2	A	\$46,330	29
Korea	Nov. 2010	5	4	4	5	5	3	4	...	4	5	4.3	A	\$25,977	5
Taiwan	Mar. 2011	5	5	5	5	3	4	5	...	5	5	4.7	A +	\$22,597	19
Malaysia	2006, 2010, 2013	3	4	4	5	4	5	4	1	4	4	3.8	B	\$10,538	18
Mauritius	Oct. 2012	4	4	4	4	4	5	4	3	4	3	3.9	B	\$9,478	28
Thailand	2005, 2009, 2013, 2015	3	2	4	4	3	4	4	4	2	4	3.4	B	\$5,779	26
Indonesia	Jun. 2014	2	2	2	2	2	3	1	1	1	2	1.8	D	\$3,475	114
Vietnam	Continuous since 1995	1.5	1.8	2.0	2.8	1.6	1.7	2.2	1.5	1.4	1.5	1.8	D	\$1,910	78
India	Sep. 2012	1	1	1	2	3	1	2	1	1	1	1.4	D	\$1,498	142
Cambodia	May 2015	0	1	4	3	1	2	3	0	0	1	1.5	D	\$950	135
Rwanda	Aug. 2014	2	2	4	3	3	4	4	2	2	1	2.7	C	\$639	46
Ethiopia	Continuous since 2008	3.0	1.9	1.7	3.1	3.9	4.3	4.4	2.0	3.2	2.0	3.0	B -	\$505	132

Notes:

1/ Evaluation: 0 (non-existent or worse), 1 (little), 2 (some), 3 (moderate), 4 (good), 5 (excellent). For Vietnam and Ethiopia, for which detailed data are available, points are given to the first decimal point.

2/ Letter grades: A+ (4.5 or above), A (<4.5), B (<4), C (<3), D (<2), F (<1).

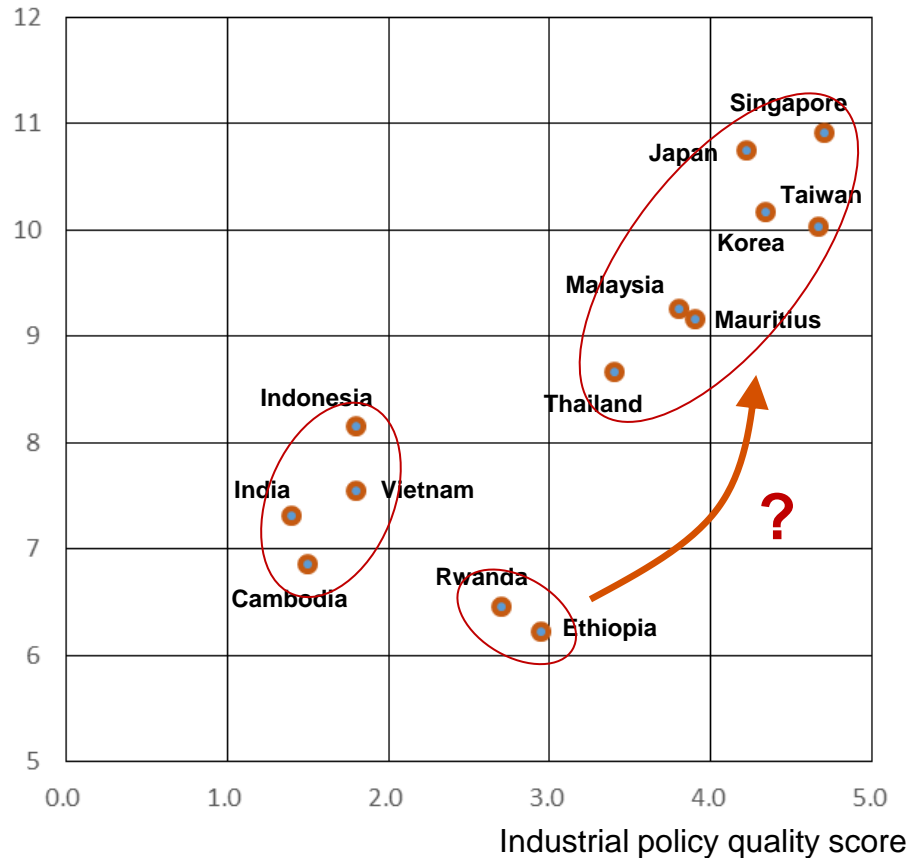
3/ Evaluation of policy prepared and implemented by national government only; results obtained by private effort, international cooperation, or external conditions are excluded.

4/ It is somewhat difficult to evaluate the policy of a mature economy, such as Japan and Korea, with a large number of industrial policy measures in the past and at present. Grades may differ depending on which measures are evaluated and how much weight is given to past achievements relative to present policies.

	Industrial policy quality		Per capita income (WB, 2013, USD)	Doing Business ranking among 189 entities (WB, 2014)
	Mean	SD		
Singapore	4.70	0.48	\$55,183	1
Japan	4.22	0.83	\$46,330	29
Korea	4.33	0.71	\$25,977	5
Taiwan	4.67	0.71	\$22,597	19
Malaysia	3.80	1.14	\$10,538	18
Mauritius	3.90	0.57	\$9,478	28
Thailand	3.40	0.84	\$5,779	26
Indonesia	1.80	0.63	\$3,475	114
Vietnam	1.80	0.43	\$1,910	78
India	1.40	0.70	\$1,498	142
Cambodia	1.50	1.43	\$950	135
Rwanda	2.70	1.06	\$639	46
Ethiopia	2.95	1.02	\$505	132

Industrial Policy Quality: Summary

Log of per capita income



(Correlation = 0.815)

Manufacturing vision

Becoming a leading nation in light manufacturing in Africa in particular and in manufacturing in general

Manufacturing targets for 2020 & 2025

- GDP share of 8.0% (12%?) (GTP2) and 20% (GTP3)
- Export share of 20% (GTP2) and 40% (GTP3)
- Employment of 1 million (GTP2) and 2 million (GTP3)

Policy areas (for FDI-linked technology transfer):

1. Targeted attraction of FDI & foreign buyers

- General improvement of business climate
- Industrial parks
- Improve one-stop service & follow-up support
- Strategic marketing: bring manuf. FDI from Asia & West
- Hard & soft infrastructure
- Reform laws & improve EIC, ERCA (& export agency)

3. Linkage policy

- Effective network of linkage organizations
- Incentives & policy support for linkage & TT
- Matching with buyers, OEM & JV partners

2. Local enterprise capacity building

- Kaizen & EKI
- Management & marketing
- Benchmarking
- Export promotion including champion products
- Sector-specific technology support
- Enhancing TIDI, LIDI, MIDI...
- Handholding
- SME finance

Policy areas (cross-cutting):

4. Efficient logistics

- Transport infra. & system
- Fast & reliable customs, etc.

5. Industrial HR

- TVET
- Universities
- Industry-univ. cooperation

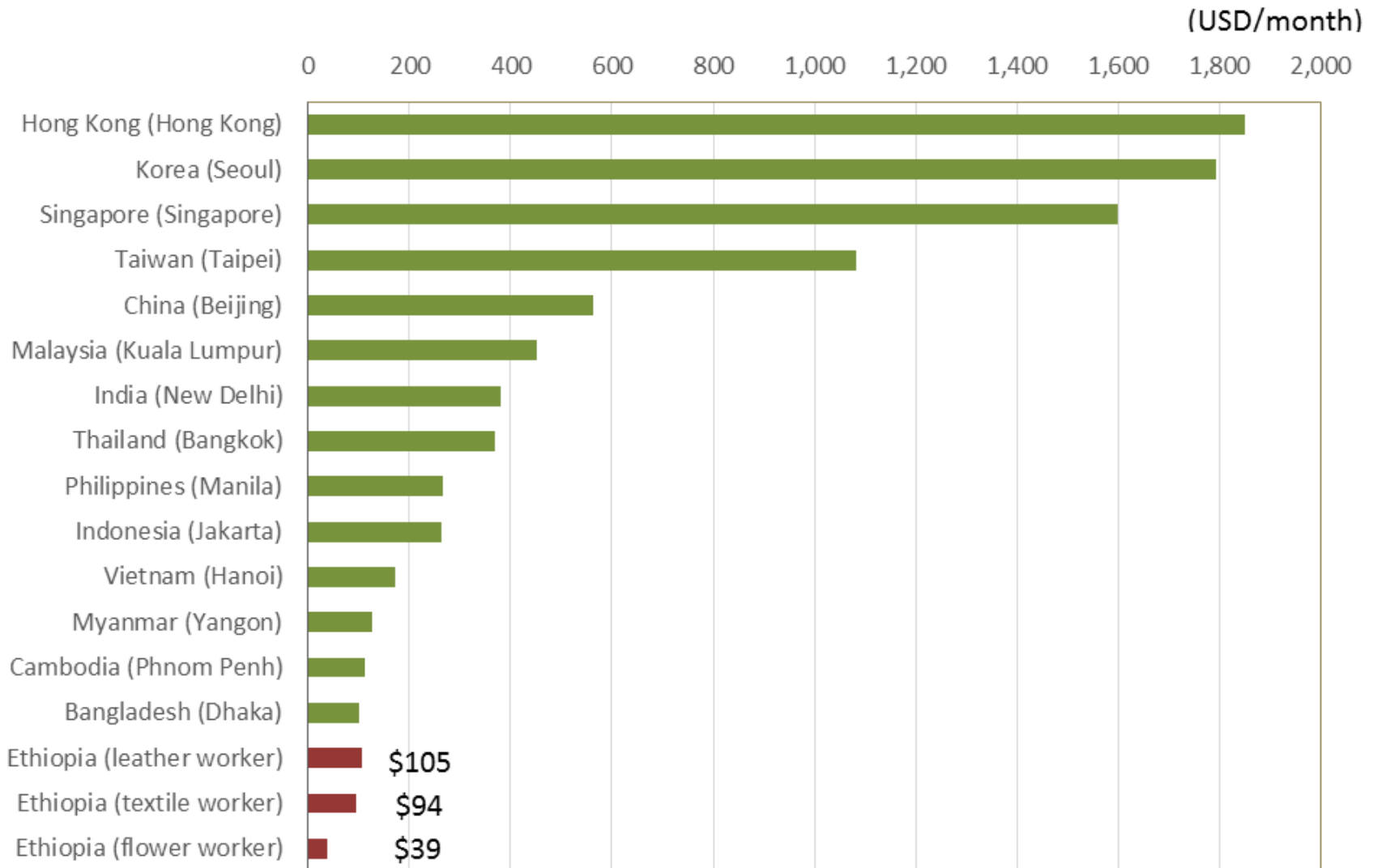
Function	Now	Intermediate solution	Final solution
SME support	TVET, Femseda, Remseda, System and master plan are laid out but support functions remain weak	Scale up & enhance quality & scope of support; start pilot handholding (HH)	Fully developed MSE support with sufficient experts, effective handholding, etc.
Large & medium enterprise support	TIDI, LIDI, MIDI... (sectoral); EKI (functional) Support functions under development	Strengthen existing institutes; train experts; improve technical support functions; start pilot HH	Well-developed sectoral & functional institutes; effective handholding
FDI marketing & investor services	EIC & one-stop service being strengthened; top sales; Business Diplomacy Enhancement under way	Enhance and expand EIC's functions incl. one-stop service, matching, post-investment support	EIC with full functions accompanied by top sales diplomacy
Industrial zones	IPDC created & expanding; BL1&2, Hawassa, Dire Dawa, etc. Currently prioritized	Improve IZ & service quality; increase private developers	Quality & quantity of IZs ensured; less state involvement
FDI-local linkage & technology transfer	Very little up to now	MOI & sectoral institutes to launch pilot linkage; offer incentives; possible JICA & HIDA support	Full linkage programs by MOI & sectoral institutes
Export promotion	Export Steering Committee; MOFA, MOI, MOT, MOA; sectoral institutes; EIC to expand functions?; champion products & national branding Still fragmented	Build integrated export promotion policy & organization; enhance functions & programs	Full-fledged export promotion with strategic support & champion products

CONCRETE ISSUES

1. Wage and Labor Productivity

- In Southeast Asia, annual wage increase is often much greater than labor productivity growth (less than 5% for most countries, 8-9% for China). Wage competitiveness is being eroded.
- Ethiopia's current main attraction for FDI is **labor advantage**. This advantage should be jealously guarded.
 - Wage & labor productivity should be measured & published regularly.
 - Labor productivity growth of 5-10% per year should be targeted. Ethiopia's actual performance was 2.7% during 2000/01-2010/11 (measured by the growth of manuf. real VA/manuf. labor).
 - Real wage increase should be equal to labor productivity growth.
 - Management, labor, and government should each make utmost effort to raise productivity, and share the fruits of growth fairly (Singapore's Charter for Industrial Progress, 1965; Cambodia & Indonesia are currently exploring such a scheme).
 - Anticipate and solve new problems—urban labor shortage, labor mismatch (sector & quality), protecting workers' rights & welfare...

Monthly Worker Wage in 2015: Ethiopia vs. Asia



Sources: JETRO Annual Survey on Comparison of Investment-related Costs among Major Cities and Areas in Asia, 2015; for Ethiopian data, Ethiopian Inclusive Financial Training and Research Institution, "Basic Empirical Research on Productivity and Wage in Ethiopia," a JICA commissioned study, September 2015.

2. Industrial Policy Timeline

- ❑ FDI policy must shift from **quantity** (attracting thousands of FDI firms) to **quality**. Business climate should be improved first, then value creation must be supported.
- ❑ Heavy industries with large domestic demand (construction materials, chemicals, etc.) can be promoted but selectively and conditionally. Private firms with competitiveness should invest.
- ❑ **Quality manufacturing** (within light manufacturing & selected heavy industries) and **quality infrastructure** must be targeted.
- ❑ A long-term liberalization roadmap should be prepared at proper speed—financial service, foreign exchange, land transport, telecom, domestic trade, etc.
- ❑ MOI (with EKI, TIDI, LIDI, MIDI...) should be strengthened and produce good results in industrial HR, manufacturing SMEs, kaizen, handholding, matching & linkage, technology support...

GTP2 Draft (pp.28-30, English)

Strategic directions of Industry:

- Light manufacturing which is labor-intensive & benefiting citizens, globally competitive & leading in Africa, and environment friendly
- Development of strategic heavy industries
- High-tech industries
- Studies to identify future growth industries

Issues:

- Only a small weight to “light manufacturing vision” (No.1 in Africa)?
- Transition from simple to high-tech/high-value industries is necessary, but its timing must be properly chosen: Malaysia (\$10,538) & Thailand (\$5,779) are making effort now (upper-middle income); Vietnam (\$1,910) is hardly able to do it (lower-middle income).
- Meaning of “high-tech”—it is not a product but a process. Frozen shrimp is more “high-tech” (strict hygienic standard, traceability, cold chain) than smart phone assembly (similar to garment & footwear).

3. Kaizen

- ❑ Japan is happy to see Ethiopia progressing toward advanced kaizen, national movement, training for other countries, etc.
- ❑ For sustainability and ownership, the following issues must be discussed at the National Kaizen Council.
 - Educational reform to teach basic efficiency and discipline at school and for working population.
 - A national kaizen skills certification system should be created.
 - Stakeholders (managers, workers, EKI consultants, TVET instructors, etc.) should be incentivized with financial & other rewards so they will practice and/or teach kaizen forever.
 - Kaizen Month must be continued until kaizen becomes part of Ethiopian culture. Prime Minister's speeches should be recorded.
 - Private kaizen consultants should be fostered.
 - Analysis & dissemination of kaizen should be deepened.

4. Industrial Parks

- We support Ethiopia's current policy focus on industrial parks to receive high quality FDI. Much progress has been made in the last few years.
- But Ethiopia's industrial parks are still in an early stage. Great effort is needed to bring them to global standard.
 - Quality of infrastructure and support should be professionally evaluated for Bole Lemi 1 & Hawassa (when completed).
 - One-stop service must be built up to global standard; Japanese criteria should be implemented at Japanese FDI areas.
 - Multiple entry options for manufacturing SMEs should be offered (for minimizing initial risk, investing small, and expanding in steps).
 - FDI statistics must be improved with international help.

5. Linkage Formation

- ❑ Matching, linkage, and technology transfer with FDI should be promoted. This should not be done forcefully by order & penalty but by providing mutually beneficial incentives & support.
- ❑ Thailand offers a good linkage model.
 - BOI Unit for Industrial Linkage Development (BUILD, 1 director & 10 staff) conducts (i) matching for local inputs and JV partners; (ii) hosting subcontracting trade fairs; (iii) component supplier database; and (iv) subsidizing SMEs to attend overseas trade fairs.
 - MOI's Bureau of Supporting Industry Development (BSID) coaches private sector for technology, forming industry associations, and integrating management (shindan), technology & financial access.
 - Private NPOs also contribute. Technology Promotion Association (TPA) tries to link Japanese & Thai firms with technology upgrading, not just matching. Thai-Nichi Institute of Technology (TNI) teaches Japanese manufacturing spirit, skills, and language.



Board of Investment Unit for Industrial Linkage Development (BUILD)



Mr. Panuwat, Director of BSID, speaks perfect Japanese and helps Thai SMEs.



Thai-Nichi Institute of Technology (TNI) teaches Japanese manufacturing; many graduates work at Japanese FDI firms

JSME Office of Technology Promotion Association (TPA), a private NPO linking Thailand & Japan



6. Handholding

- ❑ Handholding is comprehensive support for selected SMEs that show willingness and potential. Intensive customized support is provided for 2-3 years to attain one goal (first-time export, overseas investment, cluster formation, etc.)
- ❑ Handholding requires existence of many industrial experts & programs in management, marketing, technology, finance, etc. Ethiopia currently does not have sufficient support capacity.
- ❑ Pilot HH should be started during GTP2 by combining existing functions of EIC, EKI, EMI, TIDI, LIDI, etc., possibly with foreign support. As capacity rises, HH should be scaled up.
- ❑ PM Hailemariam suggested HH for transforming Ethiopian traders into manufacturers who take risks to invest in technology and equipment.

7. Champion Products and National Branding

- ❑ Besides kaizen, JICA also supported export promotion in Phase 2. Entry points were **champion products** and **national branding**. Ethiopia should produce what global customers want, not sell what it can produce.
- ❑ Professional support is needed to combine and globally project Ethiopian excellence—Light Manufacturing Vision, arrival of Flying Geese FDI, National Kaizen Movement, Ethiopian Highland Leather, Rift Valley Wine, Marathon Winners, Addis-Adama Expressway, Grand Renaissance Dam...
- ❑ We also recommend the following low-cost improvements:
 - Showcasing champion products at Bole International Airport
 - All notices & photos should be posted straight & tidy
 - House numbers should be given and displayed on streets of Addis Ababa and other cities

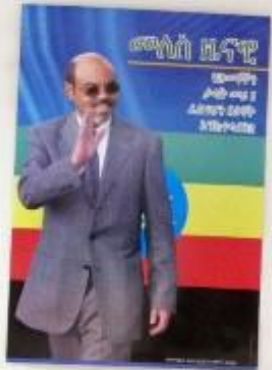


Postings at public offices

Bangkok



Mauritius



At International Airports



Addis Ababa's Bole Airport

Kuala Lumpur



8. General Investment Climate

- ❑ Ethiopia's business conditions are poor even by Asian or African standards. Problems abound in tax & accounting, customs clearance, foreign exchange control, power, logistics, and business procedure.
- ❑ Ethiopia's place in the World Bank Doing Business Indicator is low and stagnant (currently 132nd among 189).
- ❑ Ethiopia should reform ERCA, improve ESLC, and reduce foreign exchange hassles. This should be done through strong top initiative with benchmarking, BPR, kaizen, etc. International cooperation should be sought as necessary.