



# Productivity and the SDGs

*~Economic and Social Upgrading for Sustainable Development:  
Examples from Apparel Global Value Chain (GVC) ~*



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## Outline

1. The role of business in achieving the Sustainable Development Goals (SDGs)
  - Even more vital in with/post COVID-19 world
2. Opportunities and challenges for developing countries
  - Capturing diversifying FDI
  - Two types of requirements: economic vs. social upgrading
3. Country experiences of upgrading apparel Global Value Chain (GVC)
  - Sri Lanka, Bangladesh, Vietnam, Myanmar & Ethiopia
4. Implications
  - Nexus btw. productivity, economic & social upgrading



## The Role of Business in Achieving the SDGs

- The SDGs marked big departure from the Millennium Development Goals (MDGs)
  - Committing ALL countries (developed + emerging & developing countries)
  - Bringing business into the scene
- Vital role of the private sector in achieving the SDGs
  - Financial needs
  - Huge potential to SDG contribution (job creation, esp. in developing countries)
  - Major business opportunities and innovation drive
- With/post-COVID 19 world
  - Even more critical role of the private sector, toward “Building Back Better (BBB)”

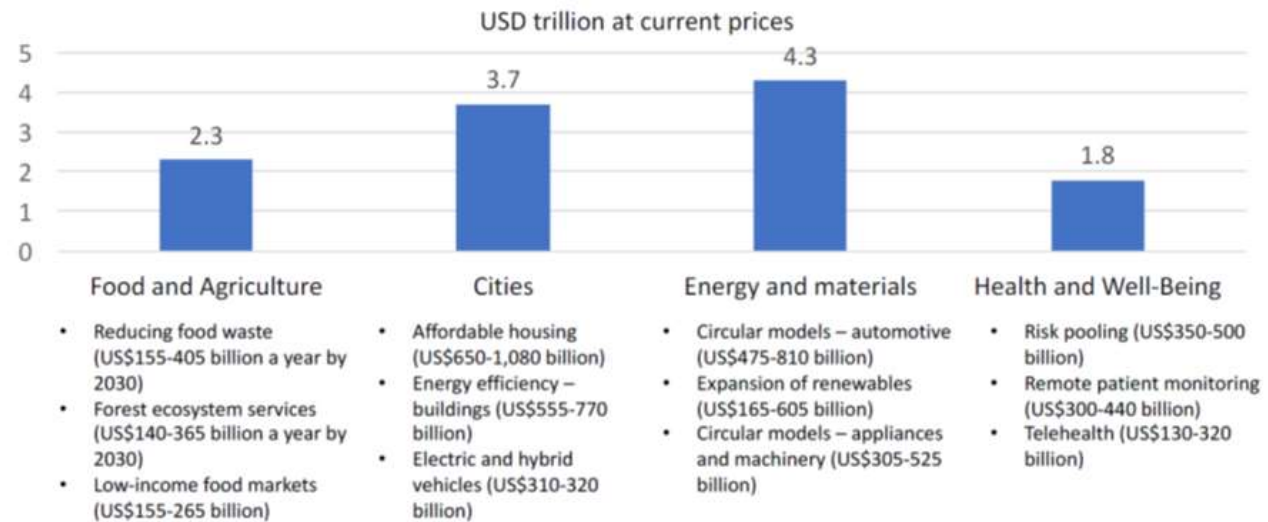


# Better Business, Better World

## Business & Sustainable Development Commission (Jan. 2017)

- Sustainable business models could open economic opportunities worth up to US\$12 trillion and increase employment by up to 380 million jobs by 2030.
- More than half the value of Global Goals business opportunities arise in developing countries
- Proposing “new social contract” btw. business, government and society

**SDGs Hotspot Markets in Four Key Economic Areas**



(Source) BSDC (2017)

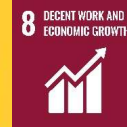


# In action: Mapping the SDGs against the value chain



Company identifies as a priority to increase its positive impact on SDG 8 in its operations by providing a living wage to all employees at all sites globally.

Company identifies as a priority to increase its positive impact on SDG 13 for use of its products by developing and delivering products that allow customers to reduce their energy use and related GHG emissions.



## INCREASING POSITIVE IMPACT

### VALUE CHAIN



## MINIMIZING NEGATIVE IMPACT



Company identifies as a priority to reduce its negative impact on SDG 6 in its supply chain by working with suppliers to reduce its water consumption in water stressed regions.



Company identifies as a priority to decrease its negative impact on SDG 11 in its inbound and outbound logistics by improving road safety for its drivers.



Company identifies as a priority to reduce its negative impact on SDG 12 at its products end of life by improving the reusability and recyclability of its products.





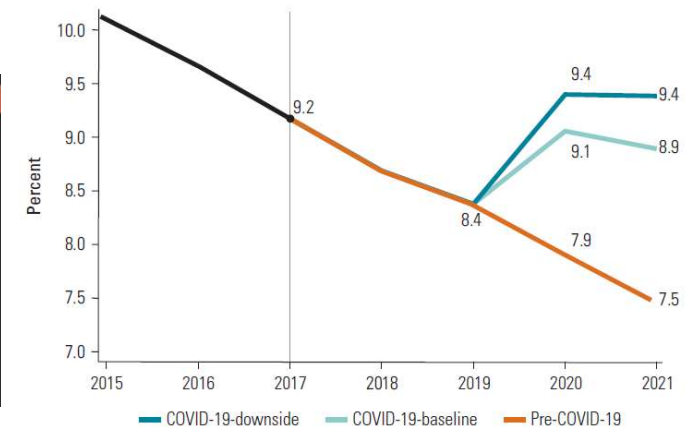
## COVID-19 Crisis and the SDGs

- Broad and global impacts, affecting the whole economy & society
  - Not just health crisis; deep economic crisis since the Great Depression of the 1930s (-4.4% global growth rate (IMF/WEO Oct. 2020))
- Reversals of Fortune (WB 2020): Along with conflict and climate change, COVID-19 has not only slowed global poverty reduction but reversed it for first time in over twenty years.
  - Pushing up to 100 million additional people into extreme poverty in 2020.
- SDGs should serve as our compass for BBB.
- The role of the private sector has become vital more than ever (economic, social and environmental progress).
- Importance of human-centered approach



Source: World Bank 2020

**FIGURE 0.3** Nowcast of the Global Poverty Rate at the US\$1.90-a-Day Poverty Line, 2015–21



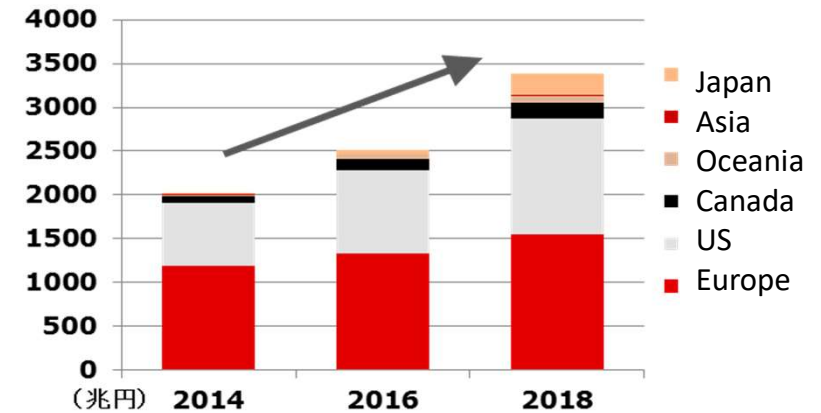


## COVID-19 as Accelerator of the Existing Mega Trends toward the SDGs

- Sustainable and responsible supply chains
  - Triple Bottom Line (economic, social & environmental)
- Expansion of ESG investment
  - Increased attention to “S”, with COVID-19
- Growing attention to “stakeholder capitalism” (WEF 2020)
- Widespread adoption of sustainable standards by lead firms in partnership with CSO
  - Various kinds of public & private standards (mandatory, voluntary, multilateral, CSO-initiated, etc.)

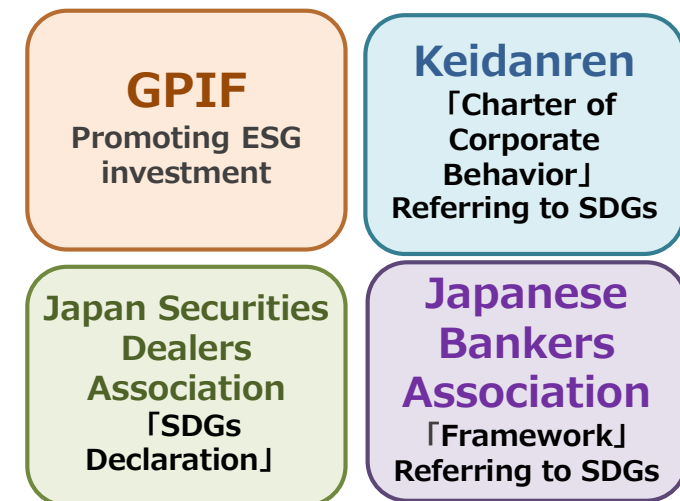
ESG: Environment, Social & Governance  
CSO: Civil Society Organization  
GPIF: Government Pension Investment Fund

### Expansion of ESG Investment



Global Sustainable Investment Alliance(GSIA)  
[http://www.gsi-alliance.org/wp-content/uploads/2017/03/GSIR\\_Review2016.F.pdf](http://www.gsi-alliance.org/wp-content/uploads/2017/03/GSIR_Review2016.F.pdf)

### Trend of ESG Investment & SDGs in Japan



(Source) JICA



## Opportunities and Challenges for Developing Countries in the Post-Pandemic World: GVC Participation & Upgrading

- The pandemic and current geopolitical tension (US vs. China trade war), together with rising costs of Chinese labor, provide potential opportunities for developing countries to capture diversifying FDI.
  - Such FDI may include green, climate-resilient, future-proof and sustainable sectors
- But, attracting new FDI and sustaining partnership are not automatic. Climbing up value chain ladder for development is even more challenging.
- Especially, developing countries/firms today are required to satisfy two types of requirements:
  - Economic upgrading (quality, cost & delivery time (QCD))
  - Social upgrading (ethical correctness, compliance)

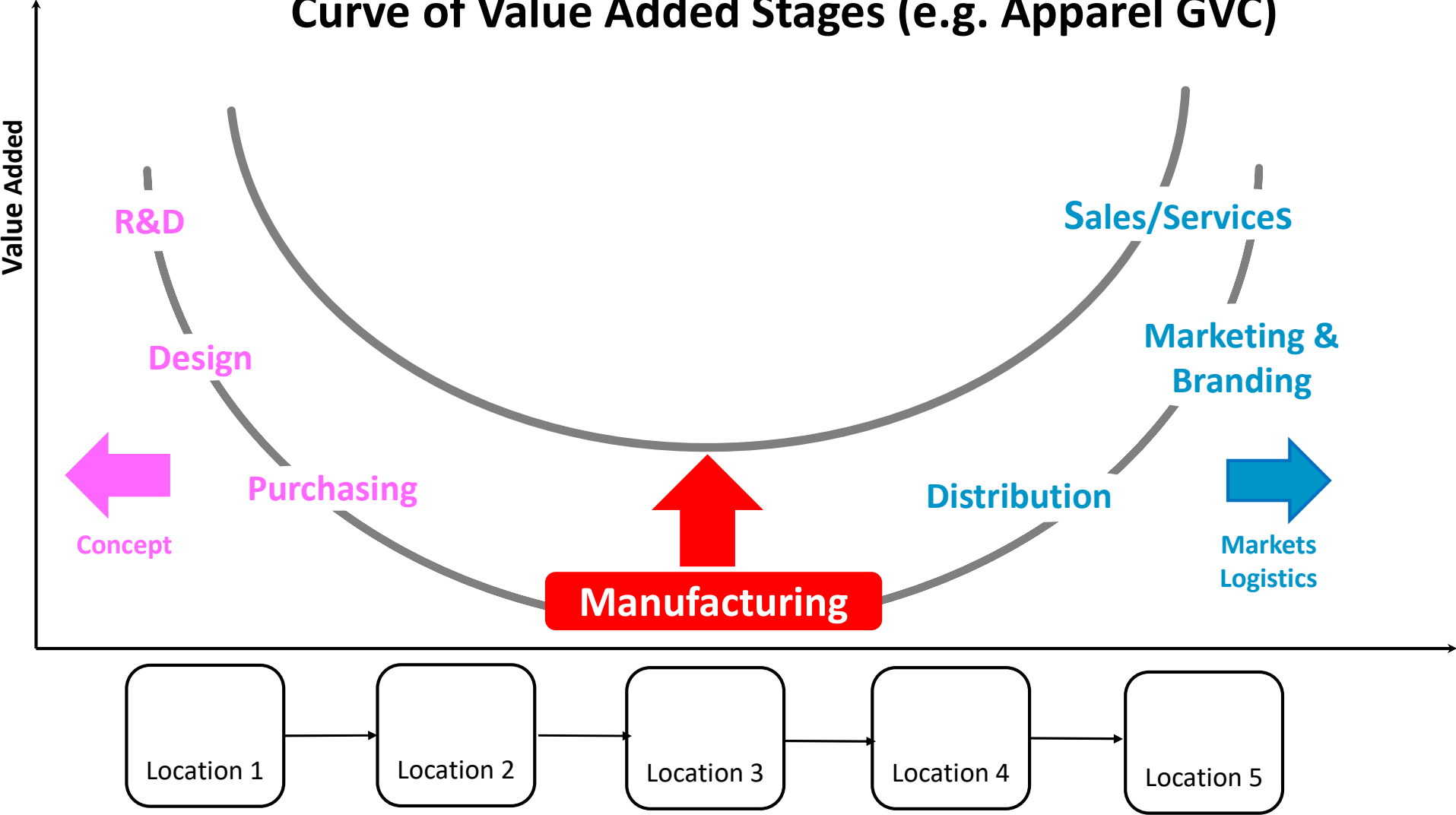




## Two Types of Requirements: Quality vs. Ethical Correctness (Gereffi & Lee 2014, Gereffi et al. 2011)

- Economic upgrading
  - Aimed at enhancing the quality of products and competitiveness of firms.
  - Process upgrading, functional upgrading, chain upgrading, product upgrading
- Social upgrading
  - Aimed at improving the quality of employment, working conditions (e.g. wages, social protection and rights), gender, health & safety, etc.
  - Also, green/ climate-friendly industrialization
- Both types of upgrading require investment in human capital, technologies & machineries. Productivity matters !



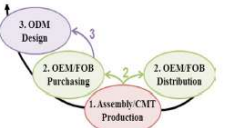



# Curve of Value Added Stages (e.g. Apparel GVC)



Value Chain Disaggregation

(Source) Modified by the author based on A. Wieland (2015) and R. Mundabi (2008)

# Economic Upgrading Trajectories of Apparel GVC

	Diagram	Description
Assembly/ CMT (Entry in the value chain)		<ul style="list-style-type: none"> <li>• Assembly (CMT): The focus of the supplier is on production alone; suppliers assemble inputs, following buyers' specifications.</li> <li>• Inputs—such as textiles, accessories, and packaging—may be imported due to limited availability and quality concerns over local inputs.</li> <li>• Product focus may be relatively narrow.</li> </ul>
Full Package/OEM (Functional Upgrading)		<ul style="list-style-type: none"> <li>• Firm takes on a broader range of tangible, manufacturing-related functions, such as sourcing inputs and inbound logistics, as well as production.</li> <li>• The supplier may also take on outbound distribution activities.</li> </ul>
Product Design (ODM) (Functional Upgrading)		<ul style="list-style-type: none"> <li>• Supplier carries out part of the pre-production processes, such as <b>design</b> or product development.</li> <li>• Design may be in collaboration with the buyer, or the buyer may attach its brand to a product designed by the supplier.</li> <li>• In many cases, ODM firms work with designers from the lead firms to develop new products.</li> </ul>
Product Brand (OBM) (Functional Upgrading)		<ul style="list-style-type: none"> <li>• Supplier acquires post-production capabilities and is able to fully develop products under its own <b>brand</b> names. Two options:               <ol style="list-style-type: none"> <li>(1) Supplier maintains a relationship with the buyer and develops brand collaboratively.</li> <li>(2) Supplier establishes its own distribution channels by establishing a new market channel that is typically more profitable and allows the firm to expand skills. These are often local or regional markets.</li> </ol> </li> </ul>
Product Upgrading		<ul style="list-style-type: none"> <li>• Increase unit value by producing more complex products, which requires increasing the capabilities of the firm.</li> <li>• Countries must move from low-cost commodities to higher value-added fashion goods that warrant higher returns as labor rates increase.</li> </ul>
Process Upgrading		<ul style="list-style-type: none"> <li>• Machinery: Improving <i>productivity</i> through new capital investments.</li> <li>• Information and Logistics Technology: Improving the way the firm carries out these activities. Benefits both the firm and the chain because it reduces the total time, cost and increases the flexibility of the supply chain process.</li> </ul>

(Source) Fernandez-Stark, Frederick, Gereffi (2011) “The Apparel GVC: Economic Upgrading and Workforce Development”





## Country Experiences of Upgrading Apparel GVC

- Garment & textile sectors are very globalized, employing more than 75 millions of workers, especially in low-income countries (contributing to job creation, esp. female workers).
- Labor cost advantages, favorable trade agreements, proximity to end-markets, are key factors to attract lead firms for their destination.
- For many developing countries, apparel industry is the first entry point into GVCs; but there are risks of leading to “**the race of the bottom**” or “**stacking at the bottom**”.
  - Social upgrading as precondition for market entry
  - Economic upgrading essential to remain and move up the value chain ladder
  - For both types of upgrading, productivity matters

## Selected Economic & Social Indicators of Apparel Exports

	Sri Lanka	Bangladesh	Vietnam	Myanmar	Ethiopia
<b>GNI per capita (current US\$, 2019)</b>	\$4,020	\$1,940	\$2,540	\$1,390	\$850
<b>Apparel Exports (US\$) *1</b>	\$ 4,739,878,428 (2017)	\$ 26,532,325,125 (2015)	\$ 30,038,021,162 (2019)	\$ 5,027,653,307 (2019)	\$ 47,382,127 (2018)
<b>Apparel Exports % of Total Commodity(HS) Exports</b>	40.4%	83.6%	11.4%	27.9%	3.1%
<b>Formal Labor Force in Apparel (before COVID-19)</b>	400,000	4,000,000	2,700,000	450,000	62,000
<b>Numbers of Apparel Factories (before COVID-19)</b>	850	4,560	6,000	600	177
<b>Main Apparel Export Destinations</b>	US, Europe	Europe, US	US, Europe, Japan, China, Korea	Europe, Japan, Korea, US	Europe, Turkey, US
<b>Preferential Scheme</b>	(developed under MFA), GSP+	(developed under MFA), EU/EBA, GSP	GSP	EU/EBA, GSP	AGOA, EU/EBA
<b>Highest Value Activity</b>	ODM/OBM	CMT	CMT, FOB/limited OEM	CMP (→OEM?)	CMT

(Source) UN Comtrade statistics, WB World Development Indicators (GNI pc. atlas method). Other data are based on various country reports.

\*1: UN Comtrade commodity trade code 61 & 62.



## Sri Lanka

- In 1977, Sri Lanka liberalized economy and created EPZs to receive FDI. Foreign best practices were combined with strict Sri Lankan Labor code.
- Sri Lanka specializes high-end, niche, downstream and knitted garments including ladies' underwear. Upstream cotton & textile are not prioritized.
- Top apparel makers are competitive; they achieve high ethical standards (labor & environment). EU/US buyers are happy with Sri Lankan apparel.
- Sri Lanka Institute of Textile & Apparel (SLITA) and other training institutes have produced many skilled workers.
- 12 EPZs under the Board of Investment (BOI) offer one stop service, helping tenant firms solve problems and achieve high labor & environmental standards.
- Private dynamism is strong (mainly apparel). The private sector leads the government to draft and implement policies (e.g., post-MFA).

EPZ: Export Processing Zone

MFA: Multi Fiber Arrangement (1974-2004)



## Bangladesh

- World-second largest apparel (ready-made garment: RMG) exporting country, after China.
- RMG sector accounts for more than 80% of Bangladesh's exports.
  - Employing more than 4 million workers (mostly female migrants from rural areas).
- After Rana Plaza collapse (2013), **ACCORD** & **ALLIANCE** were established as a legally-binding agreement btw. brands and trade unions to address fire, electrical, and structural (building) safety standards in the RMG factories.
  - The Accord on Fire and Building Safety in Bangladesh (2013-18, extended to 2020): European RMG retailers
  - The Alliance for Bangladesh Worker Safety (2013-18): American RMG retailers
- These coalitions made major progress, fixing over 80% of the problems they had originally identified.
- In June 2020, a national supply chain initiative (RSC: RMG Sustainability Council) was formed to take over the work by ACCORD & ALLIANCE.



# Impacts of Compliance Measures on Firm Performance

## BIDS Report (2020) on 508 RMG firms

- No big change in the profitability of the firms over the period 2014-2018. The compliance can affect the perception of workers about their safety in the very short run, but it cannot produce real impact on labor productivity or profit.
  - Treatment firms (255) incurred more costs to meet compliance standards (building safety & electrical safety standards, fire safety etc.).
  - It appears that implementation of compliance standards affected output growth of small firms badly.
- The betterment of work environment can lead to higher productivity of workers only in the long run.
- Firms need to increase cost efficiency by minimizing operational costs and adopting more technology-oriented production process.
- In addition to compliance measures, firms must continue product diversification within RMG and find new markets (as Bangladesh graduates from LDC status in a few years).

(Source) Impact of compliance standards on firm productivity in the RMG industry (BIDS Report: Monzur et al. 2020)





## Vietnam

- Top third garment exporter in the world, following China and Bangladesh.
- Vietnam is considered a “successful” case of ILO/IFC-supported **Better Work** (BW) Program.
  - More than 550 firms are registered (as of late 2018).
- In Vietnam, BW has been implemented in three phases (2009-13, 2013-16, 2017-present):
  - BW conducts the assessment of labor conditions and provides advisory services & training to the firms (suppliers) which paid registration fees.
  - FDI firms can receive assessment reports of their suppliers, once they paid reporting fees.



International program focused on evaluating & improving working conditions in developing countries.

- Starting from Cambodia (2007), Vietnam, Indonesia, Bangladesh, Nicaragua, Haiti & Jordan.



## Better Work Program and Firm Performance

### The Impact of Better Work (2018), Tufts Univ. Labor Lab.

- The average firm increased its profitability by 25% after four years of participation in BW program.
- Unit costs associated with participation in BW increase with each successive assessment cycle due to increase in wages.
- The increasing costs per worker in Vietnam are offset by an increase in productivity and improved sourcing terms. Increased productivity is captured by workers in the form of higher pay or lower working hours.
- The increasing profits for participating firms is likely attributable to larger orders. Firms in BW may have also received an increase in price.

(Source) Impact of Better Work: Firm Performance in Vietnam, Indonesia and Jordan (Tufts Univ. Labor Lab.: Brown et al. 2018)  
Better Work Vietnam at Glance (ILO/IFC)



## Myanmar

- Myanmar's garment export is still small, but on the rise. A recent surge in garment export is driven by tariff-free privileges of EBA (EU) and ASEAN free trade.
- The country stays at the primary stage within apparel GVC—i.e., CMT (cut-make-trim).
- When the Myanmar garment industry was seriously hit by Western sanctions, it turned to Asian markets. In the early 2000s, Japan became the biggest market for Myanmar's garment industry (no trade sanctions).
- Japan offered training on IE, sewing skills, quality control, O&M of machines, which had a profound impact on quality control and skill upgrading. (Interview with SG/MGMA, Nov. 2019)
- EU reinstated Myanmar into GPS in 2013 (i.e., most favorable EBA scheme), which was followed by the restoration of US's GSP in 2016. European donors also support social compliance.

EBA: Everything But Arms

GSP: Generalized System of Preferences

MGMA: Myanmar Garment Manufacturers Association



# Upgrading Opportunities and End-Markets

## ICTSD Study (Samah El-Shahat & Violante de Canossa, 2018)

- Clear differences btw. Eastern (Japan & Korea) and Western (EU & US) buyers.
  - Japanese buyers: emphasizing quality control over other considerations. **(Economic upgrading)**
  - European buyers: focusing on social & environmental compliance, requiring international standards (e.g., Business Social Compliance Initiative (BSCI)). **(Social upgrading)**
- Donor support also reflects such differences.
  - Japan: Myanmar Garment HRD Center (METI/JETRO's assistance to MGMA, 2008-17 ) – Kaizen, production management, garment inspection, quality promotion, etc. This was followed by JPC support (2017-18).
  - SMART Myanmar (EU: 2013-19), Pyoe Pin (UK), CBI (Netherland), GIZ & AVE, etc. – supporting compliance (e.g., proper treatment of dyes chemicals and disposed materials). Social Compliance Academy.
- Challenges to upgrading:
  - Shortage of skilled middle & top management, lack of technical know-how, poor financial infrastructure, limited capital investment capacity, and low-levels of worker's efficiency (productivity)

JPC: Japan Productivity Center / AVE: Foreign Trade Association of German Retailers

CBI: Center for the Promotion of Imports from developing countries (Ministry of Foreign Affairs, Netherland)



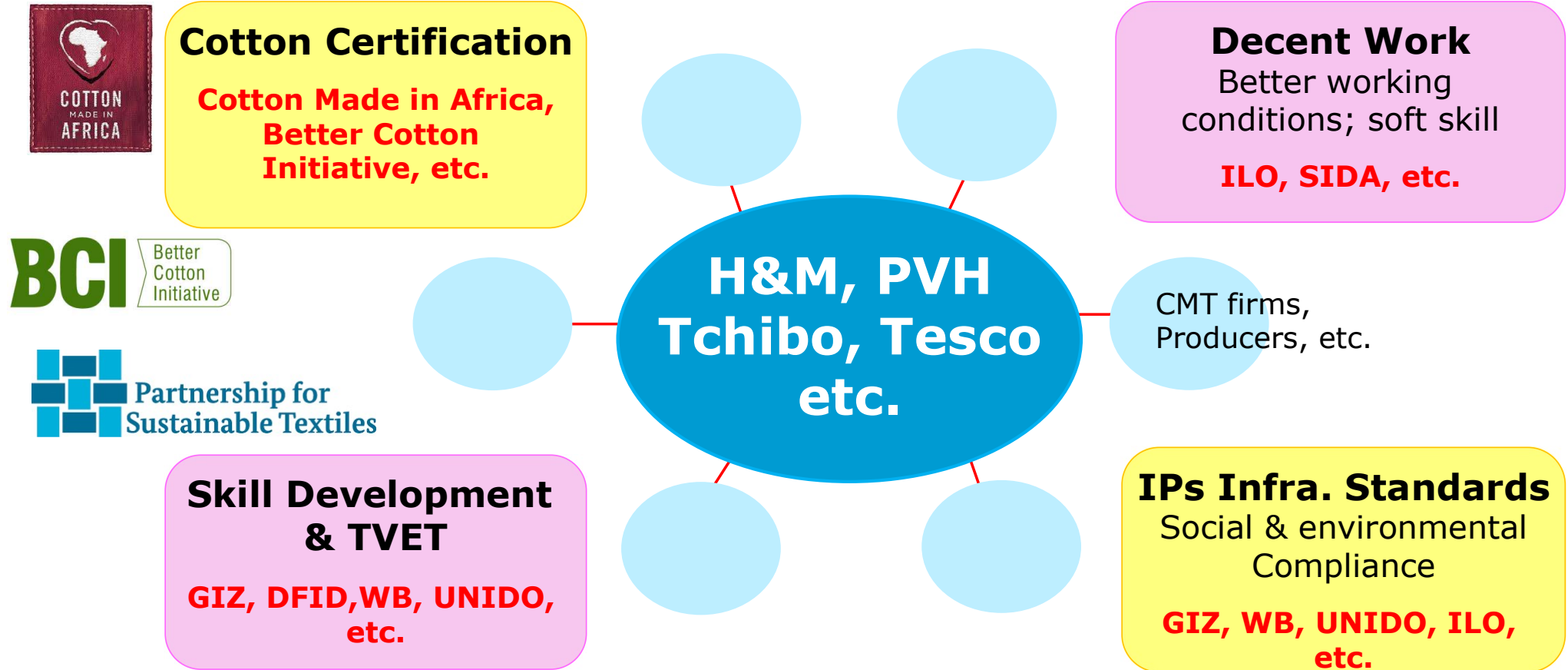
## Ethiopia



- Textile & apparel industry is one of the high priority, export-oriented sectors promoted by the Ethiopian govt. The country also produces cotton.
- From around 2010, European/US brands have started to source from Ethiopia, attracted by low labor costs & electricity tariffs, preferential market access (AGOA, EBA, etc.). They have invited suppliers from emerging economies (Turkey, India, Sri Lanka, Bangladesh, etc.).
- Like Myanmar, Ethiopia is at the primary stage within apparel GVC (i.e., CMT).
- The Ethiopian govt. is building IPs (some of which are dedicated to textile & apparel industry, i.e., Bole Lemi 1-2 & Hawasa IPs).
- Active business-donor partnership to inclusive & sustainable supply chains.
  - H&M working with ILO & Swedish SIDA on Decent Work project; PVH working with govt. & donors to build environmentally-friendly IP (Hawasa).
- In parallel, Japan has been supporting Kaizen promotion in Ethiopia since 2009.

AGOA: African Growth and Opportunity Act  
IP: Industrial Park

# Public-Private Partnership for Sustainable Textile & Apparel Supply Chains



(Source) Elaborated by the author based on the information obtained from Japan-Ethiopia industrial policy dialogue (July 2017)

## ITC Report (2015)

- Major destination of Apparel exports: Germany (76%), US (14%), Sudan (6%), UK (6%)
- Major destination of Textile exports: Turkey (58%), Germany (14%), Italy (13%), China (11%), US (2%)

## JICA' Support to Kaizen (relatively large projects with institution-building component)

Country	1980s	1990s	2000s	2010s
<b>Asia</b>				
Singapore	'83 → '90			
Thailand		'94 → '01	'06 → '11	
Cambodia				'10 → '13
<b>Latin America</b>				
Costa Rica		'92 → '97	'01 → '06	'15 → '18
Brazil		'95 → '00		
Argentina			'04 → '06	'09 → '10
Paraguay				'07 → '10
<b>Europe &amp; Middle East</b>				
Hungary		'95 → '99		
Jordan				'11 → '13
<b>Africa</b>				
Tunisia			'06 → '08	'09 → '13
Egypt				'16 → '21
<b>Ethiopia</b>			'07 → '11	'09 → '11 → '14 → '15 → '20
Ghana				'12 → '15 → '19
Kenya				'12 → '14 → '15 → '19
Tanzania				'13 → '16 → '17 → '21
Zambia				'14 → '16 → '17 → '21
Cameroon				'15 → '17 → '19 → '23
South Africa				'15 → '17 → '20
AU Commission				'15 → '17



**Kaizen in Ethiopia**

(Photo by the author)

(Source) Elaborated by Kimiaki Jin, based on Jin, K. 2018, 'Role of Kaizen in Japan's Overseas Development Cooperation' in Otsuka et al. (ed) *Applying the Kaizen in Africa-New Avenue for Industrial Development*. Palgrave Macmillan



## Compatibility btw. Kaizen & Social Compliance?



- JICA has been implementing Kaizen project in Ethiopia over 10 years (since 2009), with strong ownership of the govt. Now EKI consultants can teach basic Kaizen.
  - Phase 1 (2009-11): pilot implementation in 28 firms
  - Phase 2 (2011-14): establishment of Ethiopian Kaizen Institute (EKI); guidance to 249 firms; 409 Kaizen consultants trained.
  - Phase 3 (2015-20): learning advanced Kaizen and diffusing African countries.
- The govt. is also promoting Kaizen national movement, including cities, schools, kindergartens & hospitals.
- Example: MAA Garment in Mekelle (one of the top Kaizen firms in Ethiopia)
  - Audit by H&M (safety, child labor, etc.) according to the standards of Sustainable Apparel Coalition
  - JICA Kaizen support, followed by METI/JPC/ITOCHU on quality & productivity improvement
  - Same unit is charged with compliance & Kaizen



(Photo by the author)

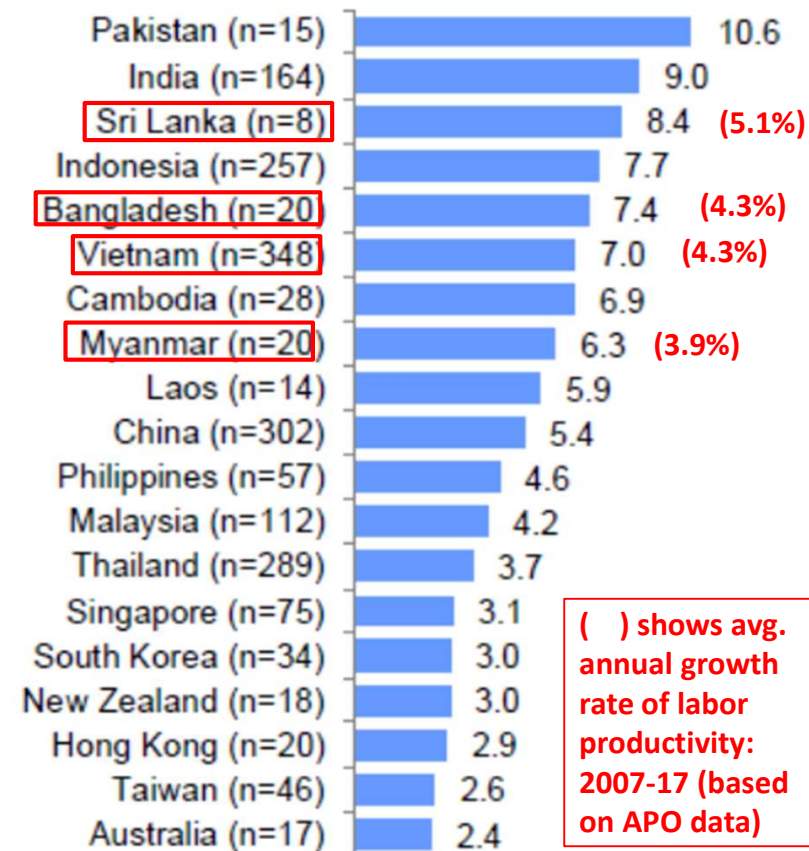




### Asia: Top 5 Management Problems by Country (multiple answers by Japanese companies: %)

Country	Problems	2019	2018
<b>Sri Lanka</b>			
1	Difficulty in local procurement of raw materials & parts	66.7	63.6
2	Difficulty in recruiting general workers	58.3	27.3
3	Wage hike	54.3	60.0
4	Difficulty in quality control	50.0	64.6
5	No more oom for cost-cutting	50.0	36.4
<b>Bangladesh</b>			
1	Difficulty in local procurement of raw materials & parts	78.8	56.0
2	Time-consuming customs procedures	66.7	60.0
3	Power shortages o blackouts	66.7	52.0
4	Inadequate logistics infrastructure	62.5	56.0
5	Quality of employees	61.9	62.5
<b>Vietnam</b>			
1	Wage hike	72.0	73.0
2	Difficulty in local procurement of raw materials & parts	56.2	56.1
3	Difficulty in quality control	49.9	54.7
4	Growing market shares of competitors (cost-wise competition)	48.0	49.5
5	Complicated customs clearance procedures	42.8	45.7
<b>Myanmar</b>			
1	Power shorages or blackouts	69.2	42.3
2	Difficulty in local procurement of raw materials & parts	65.4	65.4
3	Quality of employees	56.8	57.9
4	Growing market shares of competitors (cost-wise competition)	52.2	47.5
5	Wage hike	50.0	53.4
5	Difficulty in recruiting middle management staff	50.0	41.4

### Year-on-year Wage Increase Rate FY2019 → FY2020 (%)



(Source) 2019 JETRO Survey on Business Conditions of Japanese Companies in Asia & Oceania, November 21, 2019.



## Summary & Implications

- In the SDG era, social compliance has increasingly become a precondition for market access; COVID-19 also highlights the need for human-centered approach. But, this does not substitute for the importance of economic upgrading (higher value addition).
- Relationship btw. productivity and compliance is complex. There is high potential that improved working conditions (e.g. wages, working hours, social benefits) will incentivize workers, leading to higher labor productivity in the long run.
- The above gains can be sustained only if firms successfully keep upgrading their products and processes. This requires investment in human capital, technologies & machineries.
- Some compliance measures (e.g. fire & building safety) may incur significant costs, which could affect firms' financial capability.
- Relatively speaking, Western markets tend to emphasize social compliance & standards, while Japanese pay greater attention to quality, cost & delivery time (QCD).
- Comprehensive approach (e.g. TQM) is necessary to attain both social and economic upgrading. Kaizen may be a good entry point to integrate both.