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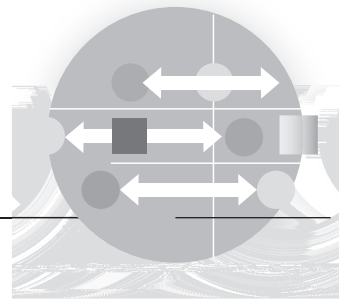
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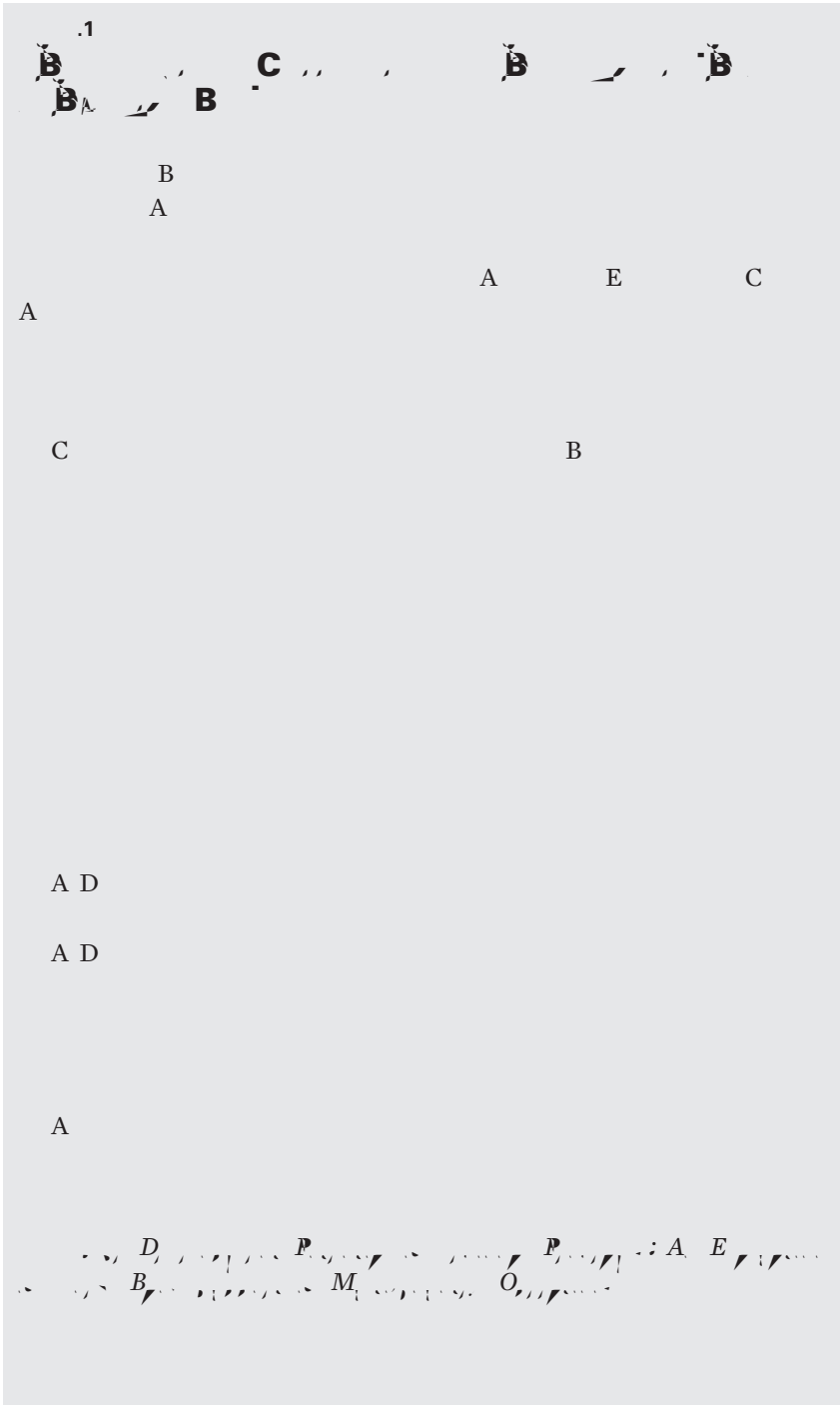
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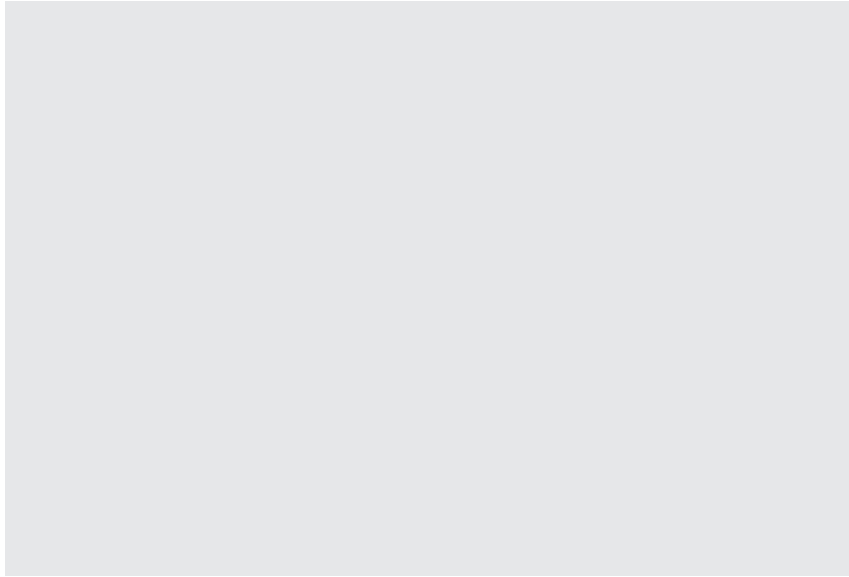
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Purpose and Use of This Toolkit

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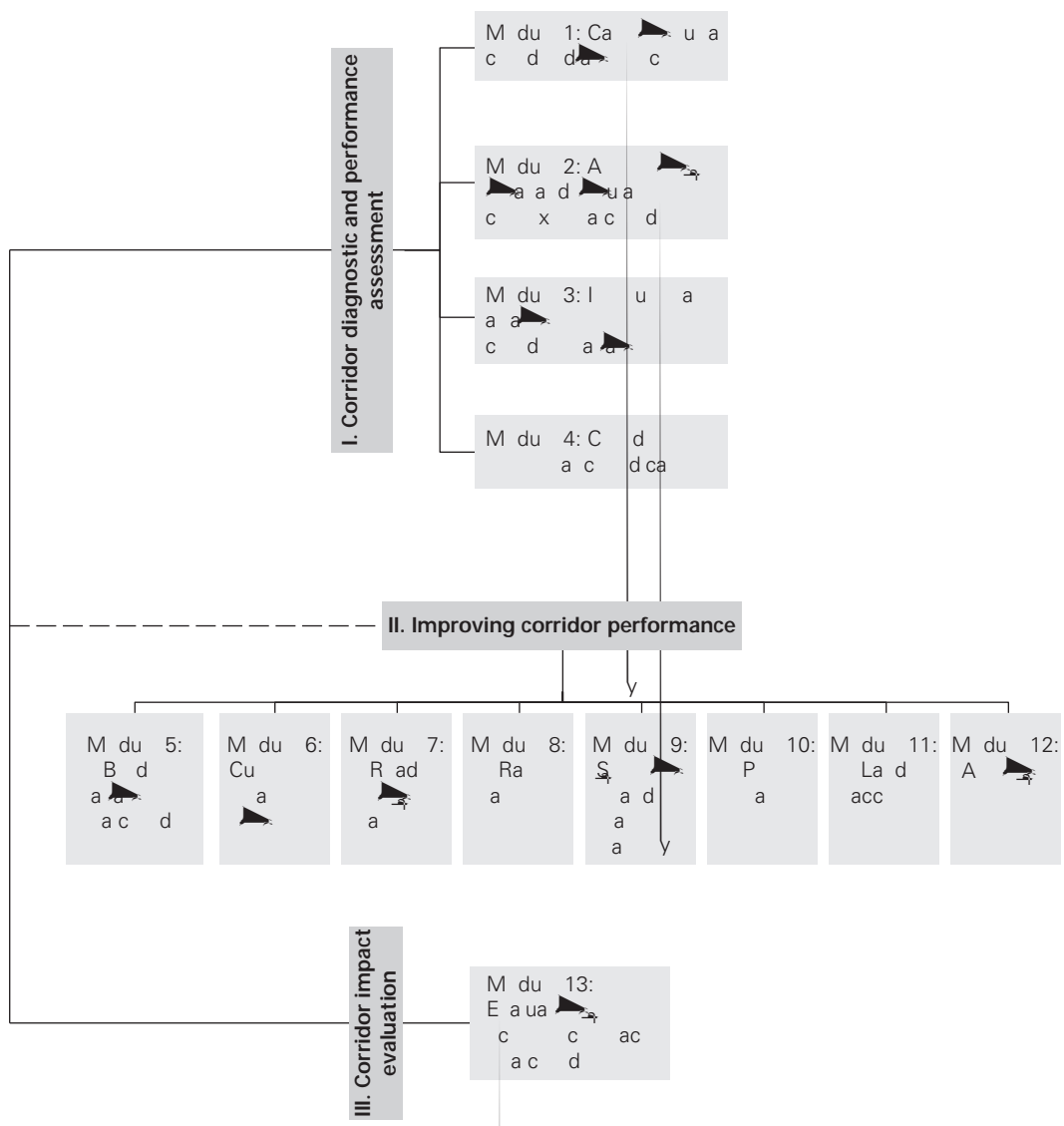


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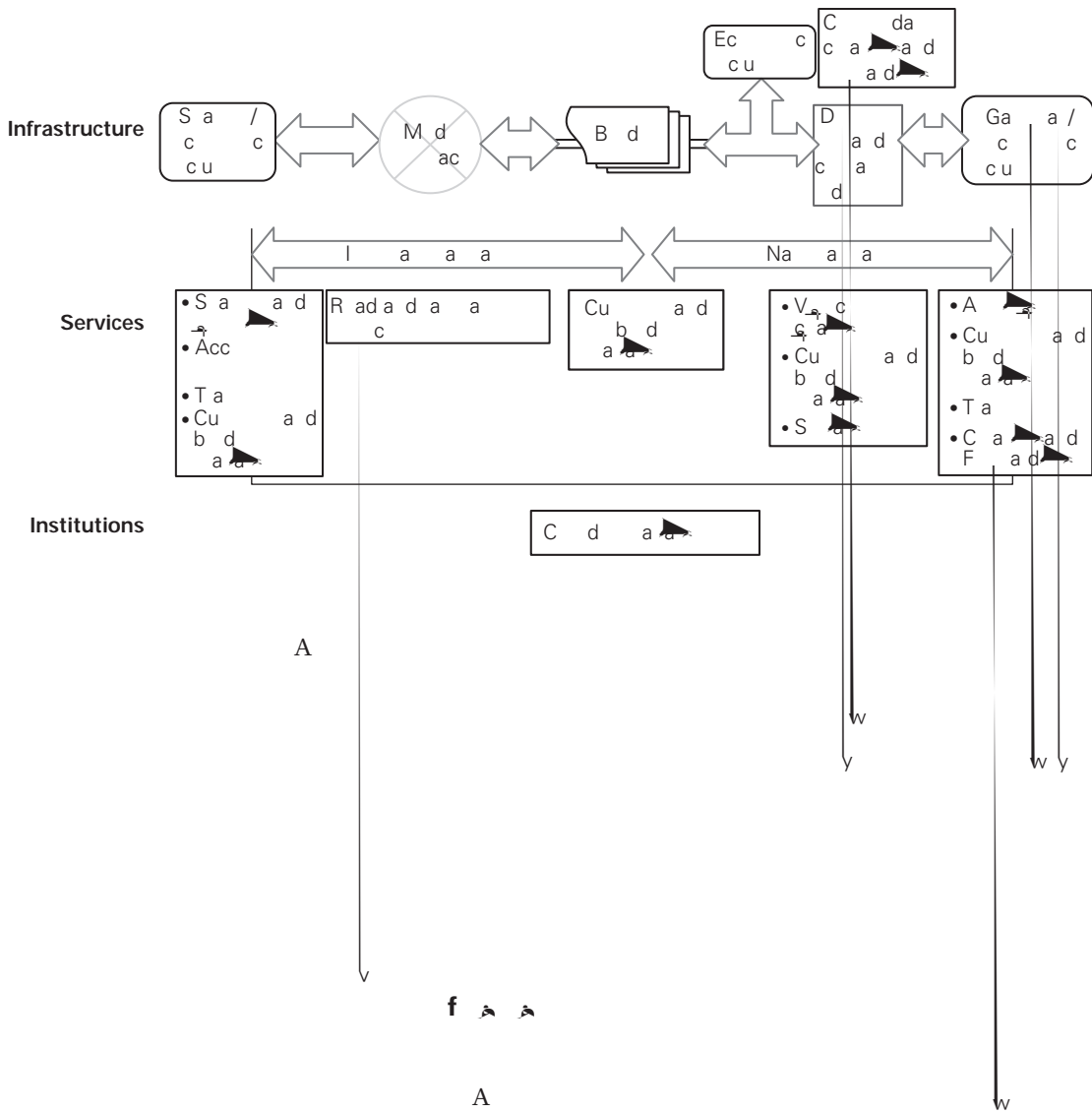
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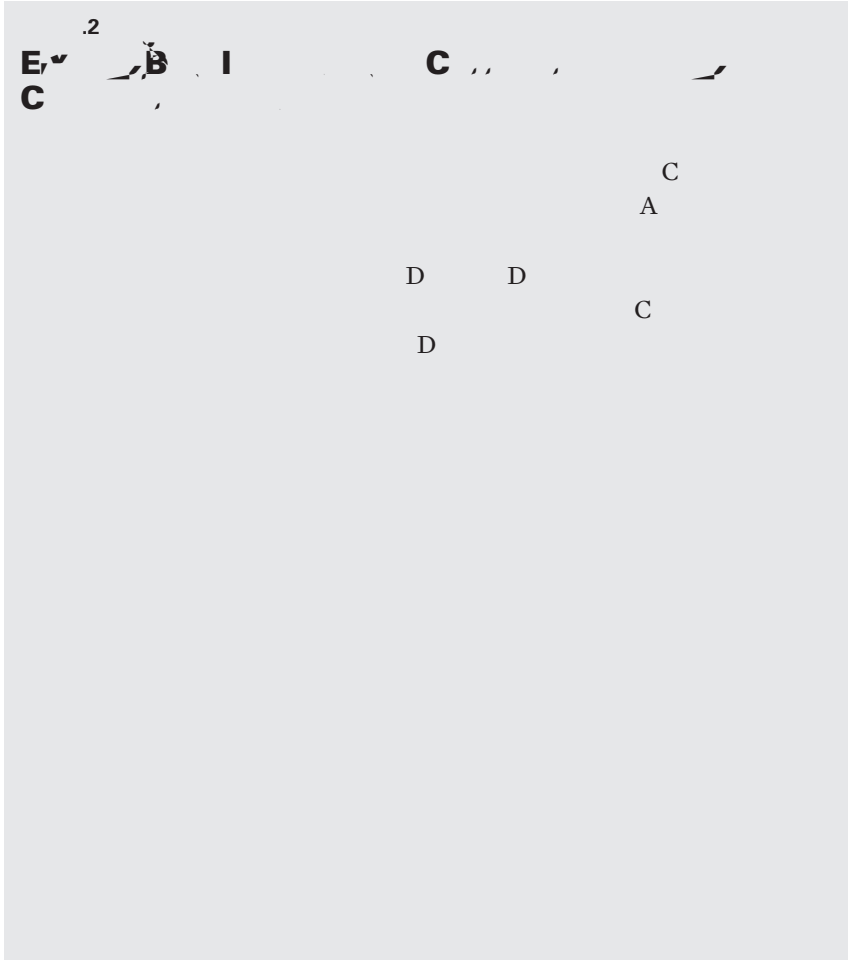
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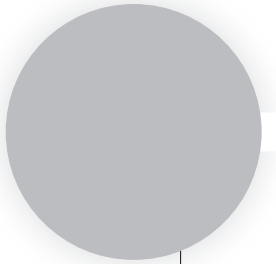
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PART I

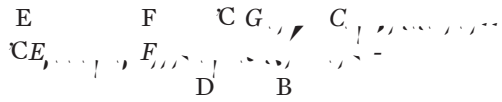
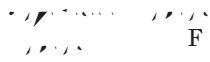
Corridor Diagnostic and Performance Assessment

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MODULE 1

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Scope of functional role	Planning, implementation, maintenance, public-private partnerships	Operations, equipment, superstructure	Regulatory responsibilities, enforcement role	Type of services provided, cargo type, hinterland served	Scope of services provided	Control of supply chain
Performance parameters	Capacity, demand, condition, size of transport units, cost of use, reliability	Capacity, terminal charges, reliability, equipment	Number of facilities, regulatory capacity	Fleet size, age distribution, vehicle capacity, traffic level, availability	Number and size of shipments, structure of industry	Volume, shipment size
Level of performance	Utilization	Average productivity, delay and dwell times (time it takes to pass through each component)	Average delay and processing times	Transit times, unit vehicle operating costs	Cost of service as percent of delivered value	Delivery times, order fulfillment, logistics costs
Extent of supply chain integration, document simplification	Intermodal connections	Downstream storage and transport services	Subcontracts, integration of information communications technology (ICT)	Multimodal services, distribution/ collection storage	House bills, regional and international shipments	Linkage to suppliers and final markets
Agreements, regulations, and policies	Standards, sources of funds	Concessions, leases, economic regulation	Regional and international legal instruments	Weight restrictions, certifications, quotas	Certification of service providers, multimodal transport operators, right to issue house bills	Cost of compliance
Impediments to efficiency	Planning and budgeting, dispersed responsibility	Weak access and poor coordination with regulators	Poor documentation, misrepresentation, weak ICT systems	Levels of duties and taxes, geographic restrictions, inadequate market information	Weak ICT connectivity with regulatory authorities and clients	Unpredictable times for transport and border crossings
Opportunities for improvement	Increase investment, harmonize standards, establish public-private partnerships, review user fees, remove bottlenecks	Improve ICT systems and services	Better coordinate border management, improve route management systems, reengineer transit regimes, make greater use of ICT	Improve financing, performance contracts; replace equipment, ICT	Improve ICT, supply chain management	Expand bonded storage, expedite clearance

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Length and condition of core infrastructure (ports, roads, rails, inland waterways)

What is the extent and condition of transport infrastructure in each country, including inland container depots and dry ports?

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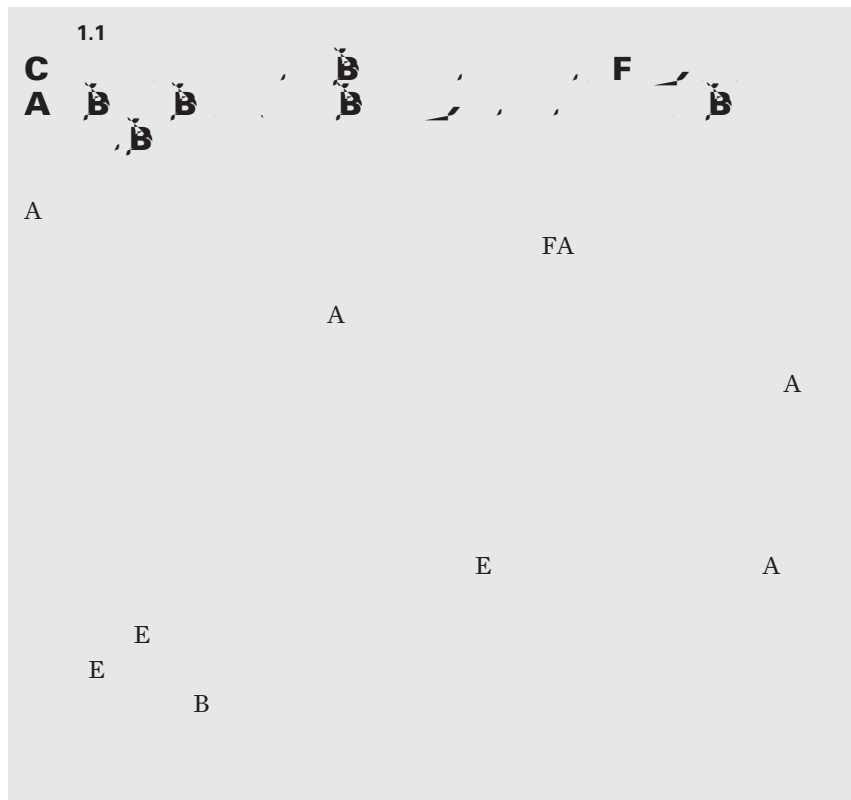
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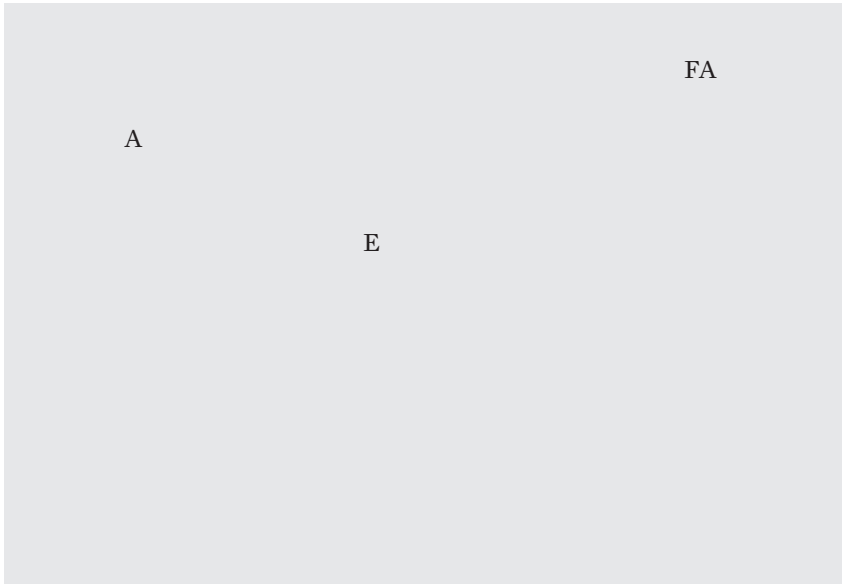
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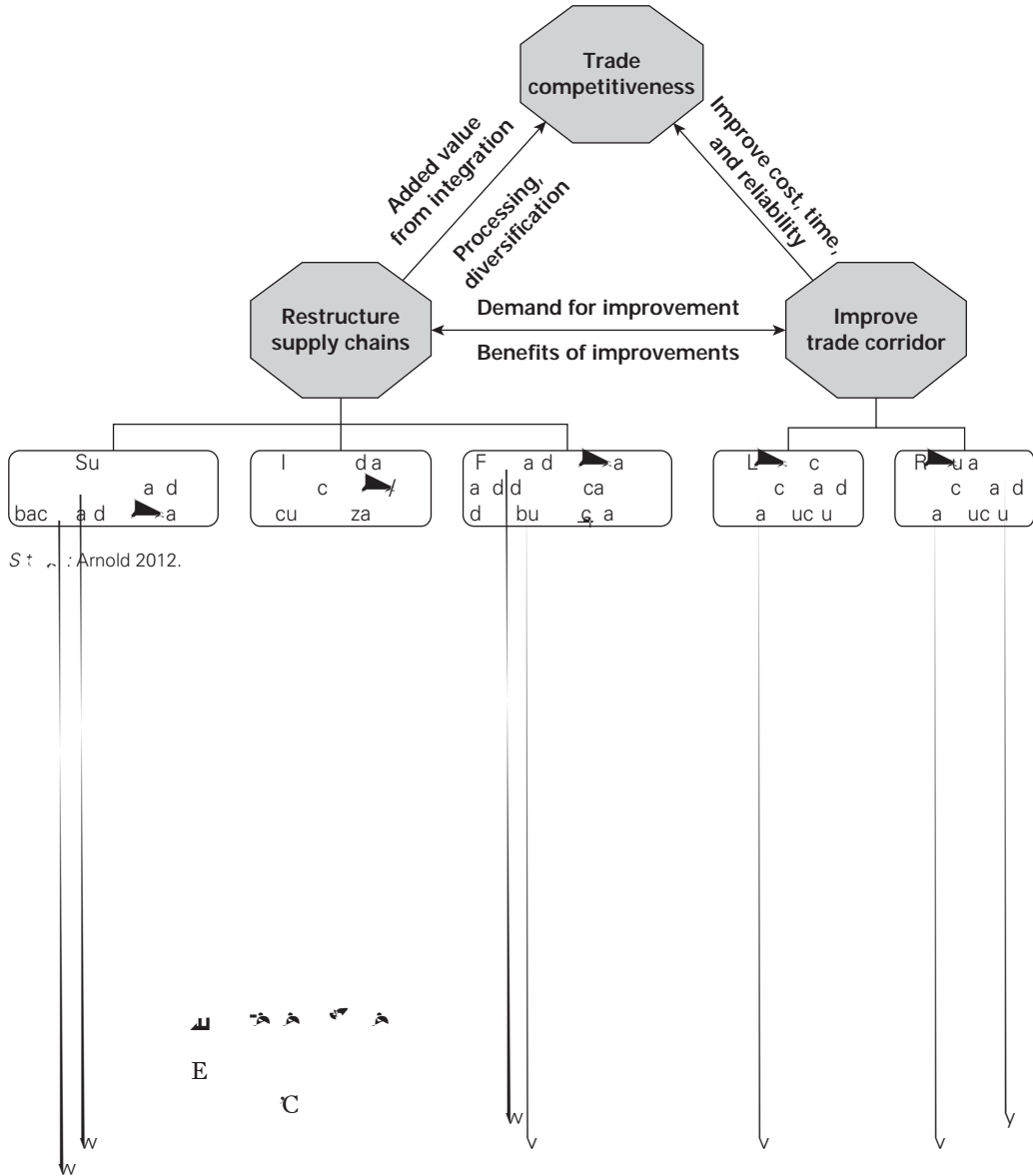
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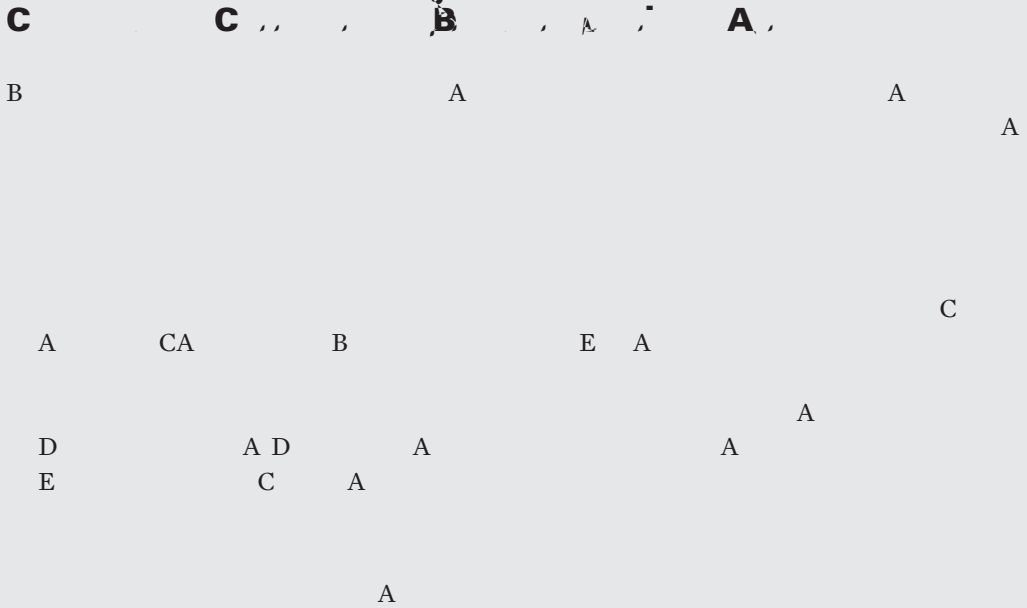
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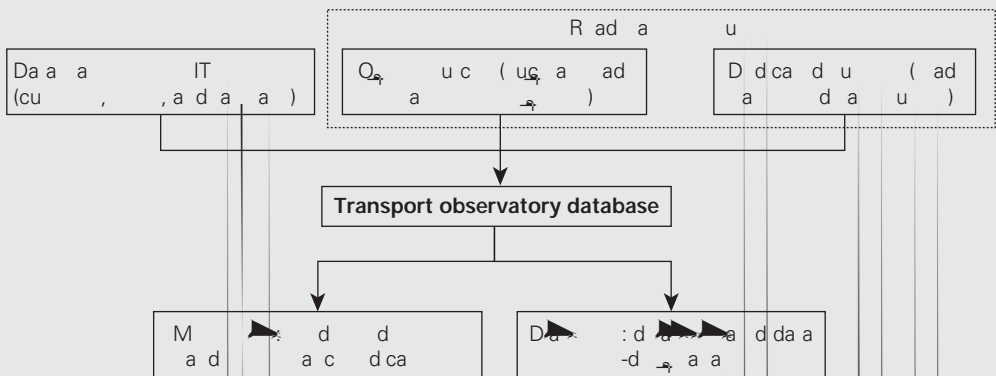
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St : Hartmann 2007.
N : IT = information technology.

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National or regional

- Determine impact of logistics performance on trade competitiveness
- Compare performance against other countries
- Identify major constraints and opportunities for improvement
- Trade and Transport Facilitation

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Traffic surveys.



stakeholder surveys.

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<i>Domestic and international</i>		
Port and airport authorities	At gateway	1
Public railways	Headquarters	1–2
Highway department	Headquarters	1
<i>Trucking companies</i>		
Road	Long-distance trucking companies operating on the corridor with medium to large fleets, specifically companies providing cross-border transport	2–5
Rail	Railway department responsible for freight operations and any subsidiary responsible for unit train operations, private operators of unit trains	1–3
Air	International passenger and airfreight carriers	1–2
Inland water transport (IWT) or coastal	Larger container barge and coaster operators	2–3
<i>Intermodal</i>		
Port	Container terminal operator	1–2
Airport	Air cargo terminal operator	1
Inland container depot (ICD)	Terminal operator	1
<i>Government and other</i>		
Customs	Headquarters, senior officers at gateways and border crossings	2–3
Health and safety	Senior officers at gateways and border crossings	2–4
<i>Logistics</i>		
Forwarding and clearance agents	Both domestic and foreign companies handling significant volumes of corridor traffic	2–3
Providers of warehousing	Facilities located in major clusters near the gateways and terminus of the corridor	2–3

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B. Questions for Exporters

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C. Questions for Importers, Distributors, and Wholesalers

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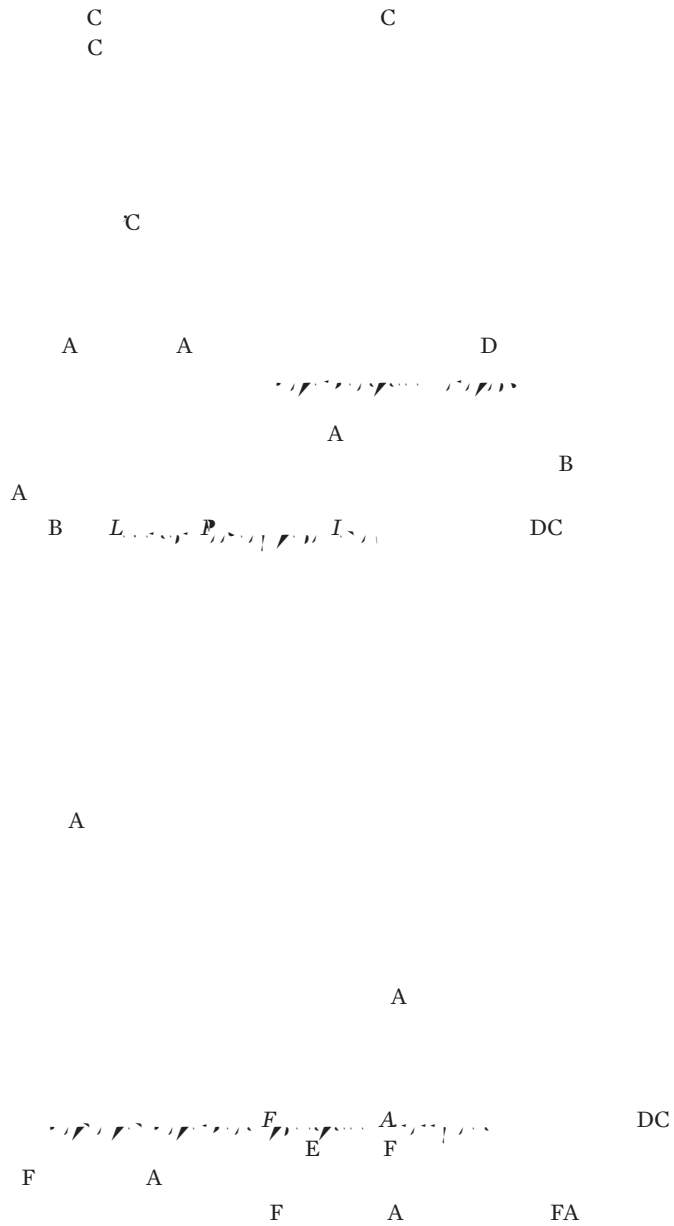
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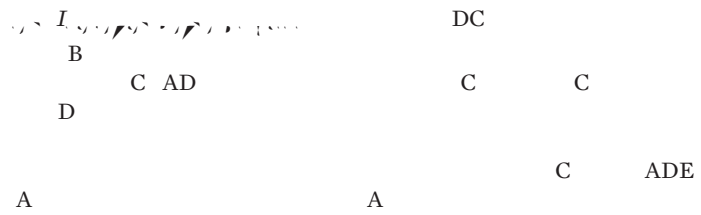


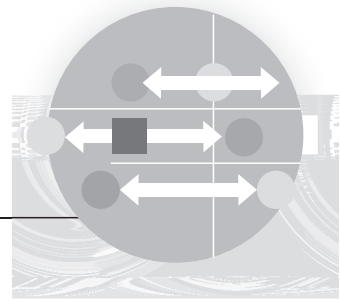
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MODULE 2

Assessing the Legal and Regulatory Context of a Corridor

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Middle East and North Africa.

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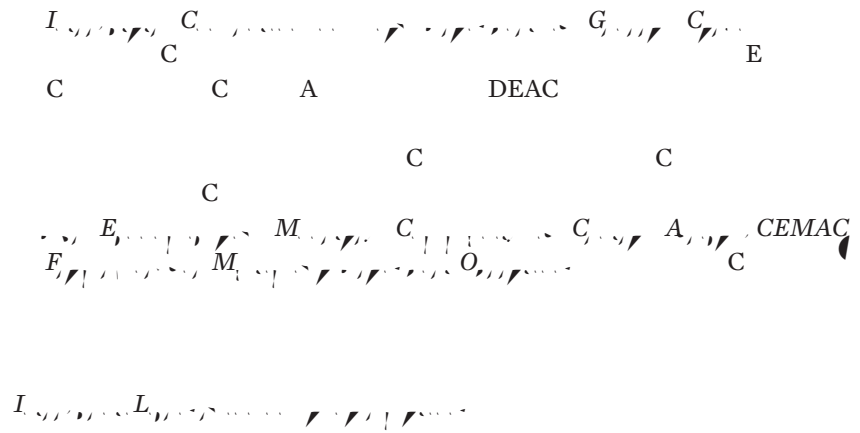
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<p>Article 5: Resources of the services To ensure that the control services operate satisfactorily, the contracting parties shall see to it that, as far as possible and within the framework of national law, they are provided with the following:</p>	<p>Provisions of this article are specific requirements of the international legal instrument. They will therefore be introduced in national legislation through the law ratifying the convention.</p>	<p>No equivalent definition exists in the national law.</p>	<p>Introduce the provisions through the law of ratification of the convention.</p>	<p>Determine the border offices where the convention will apply and, based on traffic and human resources data, the necessary staff.</p> <p>Recruitment of X numbers of personnel, costing \$X, reassignment of personnel from other border offices, costing \$X, or current staff is sufficient.</p>	<p>X months or by 201X</p>
<p>Qualified personnel in sufficient numbers, consistent with traffic requirements</p> <p>Equipment and facilities suitable for inspection, taking into account the mode of transport, the goods to be checked, and traffic requirements</p>		<p>Invest in facilities and acquisition of equipment if they are not already in place.</p>	<p>Minimum facilities (for example, X-ray scanner) would cost about \$X.</p>		<p>X months/ years or by 201X</p>



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Article 3.3, 1949 Convention	Do customs offices and posts next to each other on the same international road have the same working hours?
Article 15, 1949 Convention and Article 33, 1968 Convention	Are vehicles required to have and turn on their front and rear lights during operation? How many and which color?
Article 17.4 and 17.5, 1949 Convention, and Article 4.d, 1968 Convention	Is it permissible to affix a notice (such as an advertising notice) to a traffic sign, obscuring or interfering with the sign?
Annex 7, 1968 Convention	Do vehicle weights and dimensions comply with Annex 7 of the 1968 Convention? If not, have countries concluded regional agreements allowing for increased weights?
Annex 10, 1949 Convention or Annex 7, 1968 Convention	Is the international driving permit in compliance?
Article 3.5, 1968 Convention	Does legislation lay down minimum requirements concerning the curriculum and qualifications of the staff of professional driving schools who provide driving instruction to student drivers?
Article 7.5, 1968 Convention	Is the wearing of safety belts compulsory for drivers and passengers of motor vehicles?
Article 8.6, 1968 Convention	Does national legislation prohibit the use by a driver of a motor vehicle or moped of a hand-held phone while the vehicle is in motion?
Article 35, 1968 Convention	Must every motor vehicle in international traffic be registered by a contracting party? Must the driver of the vehicle carry a valid certificate of such registration bearing the particulars specified?
Article 39, 1968 Convention	Are periodic technical inspections mandatory for motor vehicles used for the carriage of persons and having more than eight seats in addition to the driver's seat and motor vehicles used for the carriage of goods whose permissible maximum mass exceeds 3,500 kilograms and trailers designed to be coupled to such vehicles?
Article 41, 1968 Convention	Does national legislation foresee that driving permits are issued only after verification by the competent authorities that the driver possesses the required knowledge and skills?

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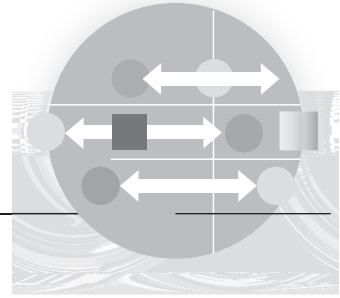
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MODULE 3



Institutional Arrangements for Corridor Management

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Regional

Where a network of trade routes exists, it may not be feasible for each corridor to have a separate management structure. Instead, decision making is entrusted to a regional entity with oversight of all corridors. Typically, the regional body has a planning and monitoring role rather than a detailed management one. Corridor interventions are left to national players. In each country, responsibility is assigned to one ministry or to a multidisciplinary structure composed of line ministries, public agencies, and the private sector, usually under the direct supervision of a high-level official, such as the prime minister.

- Trans-European Transport Network (TEN-T) in Europe

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Corridor

Management arrangements focused on a single corridor are much more common than national or regional arrangements. A single corridor structure reflects a need to concentrate on improving very specific trade routes, usually routes serving landlocked countries. Different models of single corridor management all share the same aim.

- Government-led management arrangements: In most instances, governments take the lead in corridor development and cooperation. Their role reflects both the international nature of corridors and the weakness of the private sector in collaborating and working across borders.
- Private sector-led management arrangements: The private sector or autonomous state-owned enterprises may consider it necessary to exploit the corridor approach to develop business by growing volumes to support further investment or to create sufficient mass to advocate for the resolution of operational constraints.
- Management arrangements initiated by the public and private sectors

Northern Corridor Transit Transport Coordination Authority (NCTTCA) and Central Corridor Transit Transport Facilitation Agency (CCTTFA), both in East Africa

Maputo Corridor Logistics Initiative (MCLI)

Walvis Bay Corridor Group, which actively promotes the use of the corridor for the transport of goods and services to the



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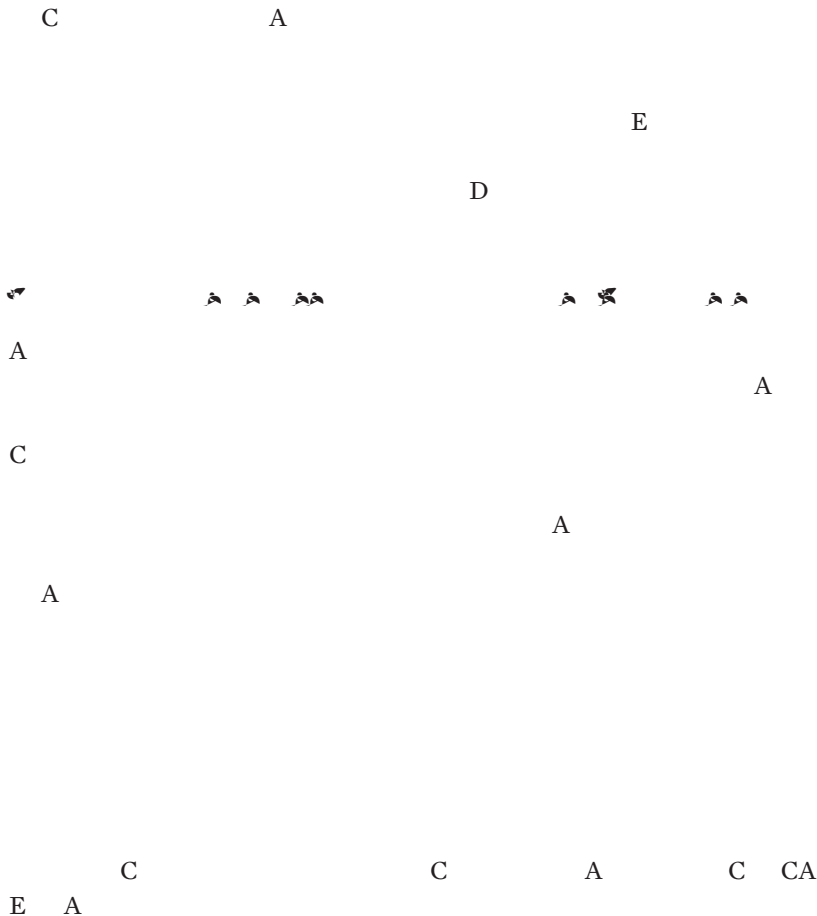
Planning,
prioritizing, and
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corridor

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Giving voice to landlocked countries and the private sector	Through specific corridors, landlocked and coastal countries are able to engage each other in a concrete manner. Nearly all corridor groups draw their staff from all the countries served by the corridor. Several corridor groups also seek to achieve overall economic development along the corridor, based on the realization that transit corridors often have poor linkages to the local economies through which they pass. Making progress in this direction requires planning processes that are integrated with national and regional planning.
Supporting project implementation	Push for implementation of agreed actions to improve corridor performance. Well-established and mature corridor bodies can play an important role in facilitating and even serving as implementing units for corridor interventions. Examples of this include the Abidjan-Lagos Corridor Organization which is effectively a project implementation unit for a regional trade and transport facilitation project.

Source: Based on Arnold 2006.



Shippers ^a	<ul style="list-style-type: none"> • Move consignment from origin to destination in shortest possible time and lowest cost. • Reduce shipping costs. • Ensure safe transportation and handling.
Transporters	<ul style="list-style-type: none"> • Reduce turnaround time. • Minimize opportunity cost of tying up truck on a particular route.
Clearing and forwarding agencies	<ul style="list-style-type: none"> • Reduce operating costs. • Handle increased volumes of cargo. • Increase the speed of the clearance process. • Reduce cross-border charges. • Harmonize documentation.
Customs authorities	<ul style="list-style-type: none"> • Promote overall economic development. • Increase customs duty collection. • Harmonize customs documents. • Improve throughput.
Port authorities	<ul style="list-style-type: none"> • Improve cargo throughput. • Increase port utilization. • Enhance port competitiveness.
Road authorities	<ul style="list-style-type: none"> • Preserve assets through axle-load control. • Recover the cost of infrastructure. • Improve road safety.
Security services	<ul style="list-style-type: none"> • Control illegal movement of goods and people. • Control illegal movement of goods and substances. • Manage the movement of plants and animals.
Service providers	<ul style="list-style-type: none"> • Increase traffic flows and therefore customers.
Consumers	<ul style="list-style-type: none"> • Reduce the cost of goods.
Health authorities	<ul style="list-style-type: none"> • Control and manage diseases and infections associated with mobile populations (HIV/AIDS, sexually transmitted diseases, and other communicable diseases).
Development partners	<ul style="list-style-type: none"> • Increase trade and regional integration and reduce poverty.

S† : Adzibey, Kunaka, and Mitiku 2007.

a. In a study on cargo dwell time in ports in Africa, Raballand and others (2012) found that shippers can sometimes optimize their operations by storing cargo in ports rather than warehouses.

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Financing by corridor champions. F

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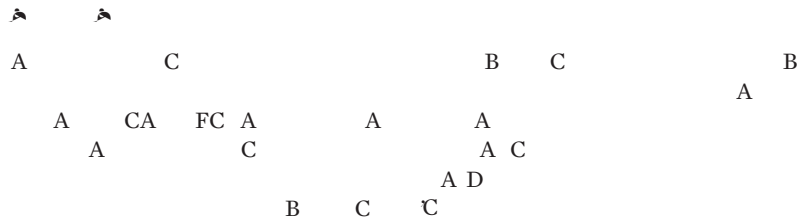
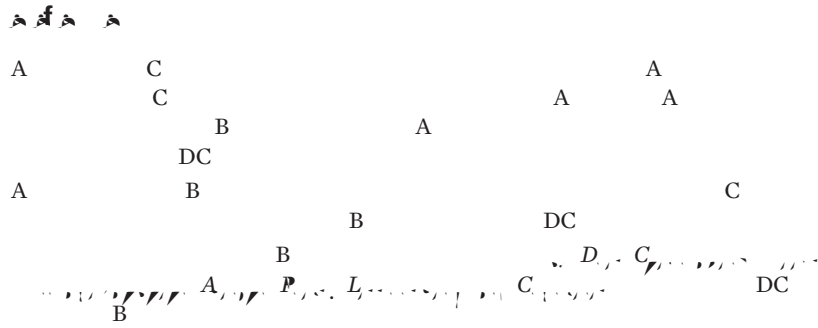


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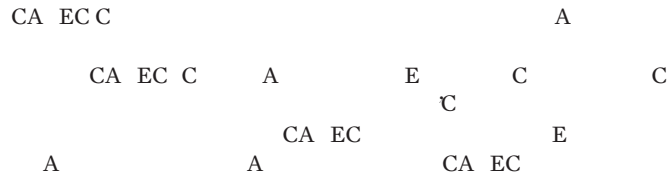


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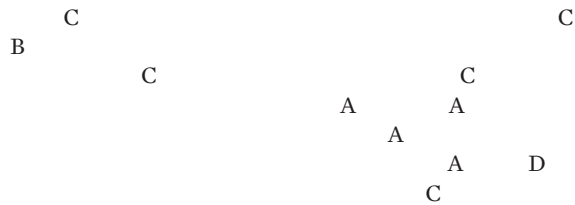
- Is there a corridor management mechanism?



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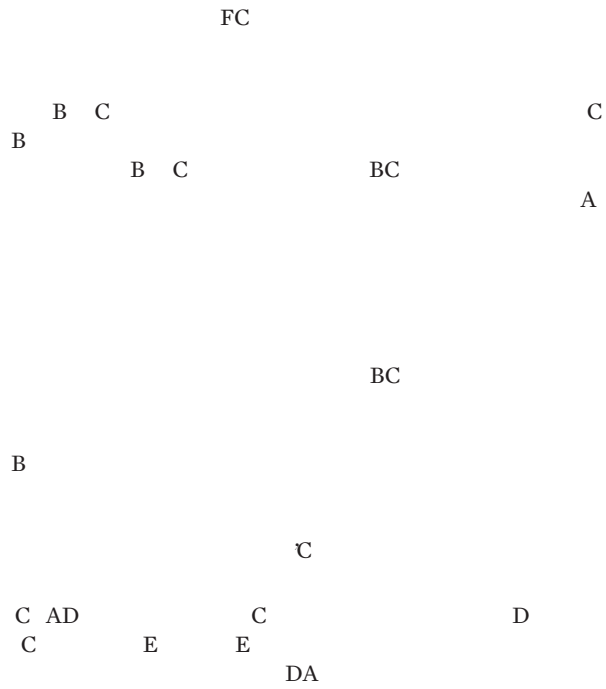


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Stages of corridor activity to monitor:

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International origins and destinations.

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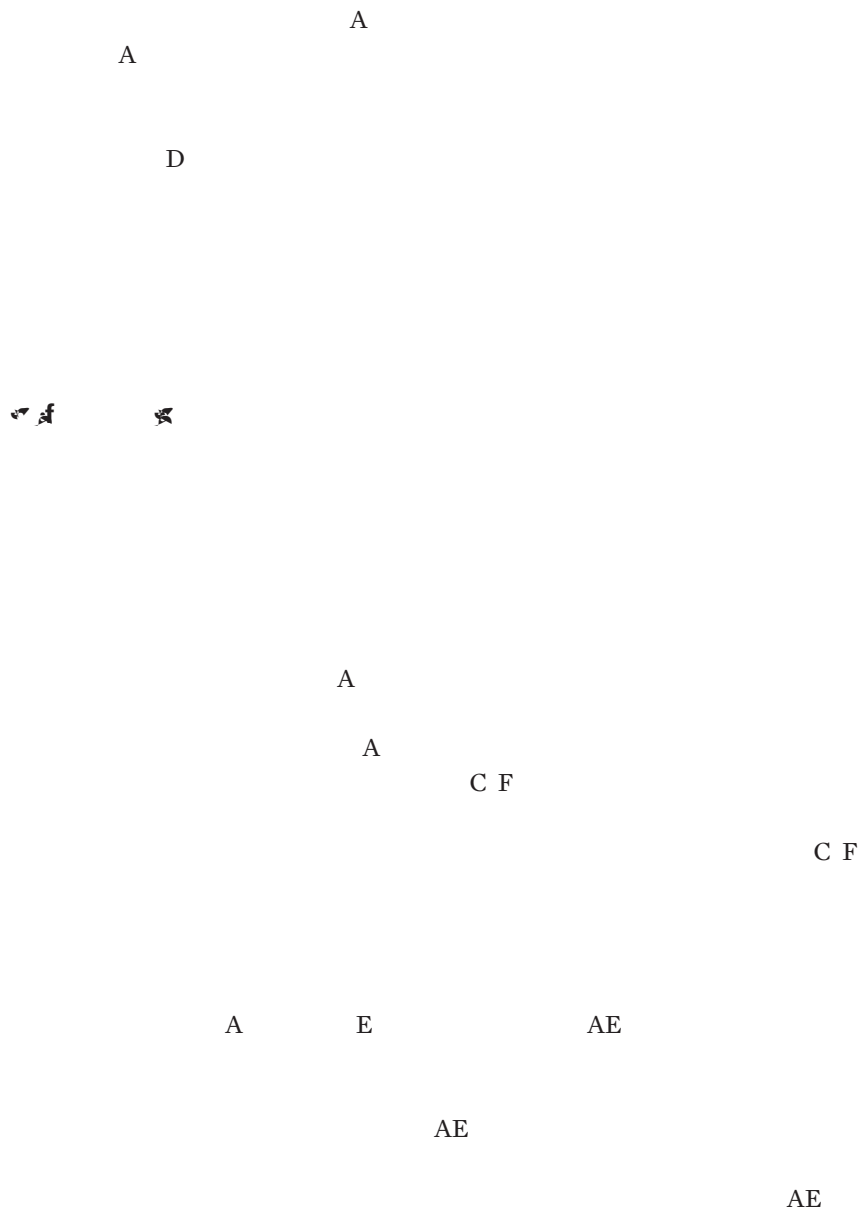
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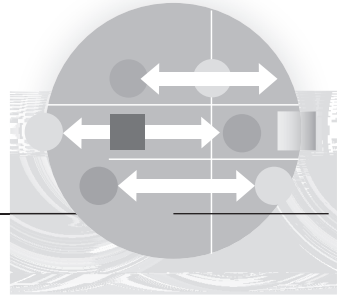


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Improving Corridor Performance



MODULE 5

Border Management in a Corridor

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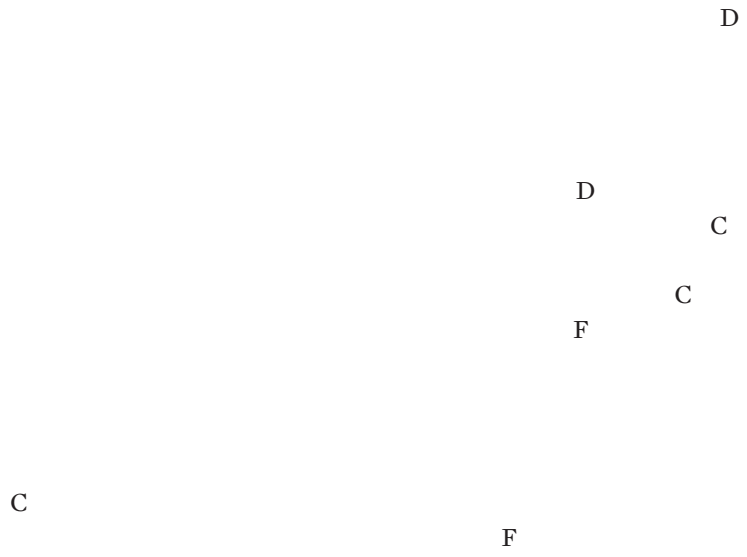
Customs	Customs officials collect or secure duties. Though the traditional role of customs of collecting duties has waned in high- and middle-income countries, it remains important in low-income countries, which rely heavily on customs revenue.
Quarantine	Quarantine officials ensure the health of people, animals, and plants by preventing infectious diseases and alien pests from entering the country. They disinfect vehicles, monitor health regulations, and check health carnets.
Public health, agriculture Standards	Public health agencies enforce sanitary and phyto-sanitary requirements by obtaining documentary evidence (certificates) or testing and physically inspecting cargo. Industrial products may be subject to verification of their conformity with international, regional, and national standards for health, safety, security, and fairness.
Security	Security considerations at most border stations worldwide were strengthened in the wake of the September 11, 2001 terrorist attacks. These considerations created the

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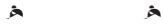
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Place where truck queues to cross border

- Start of border-crossing process

Place where goods arrive

- Entry of vehicle into country

Place where physical examinations take place

- Initial customs registration

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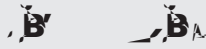


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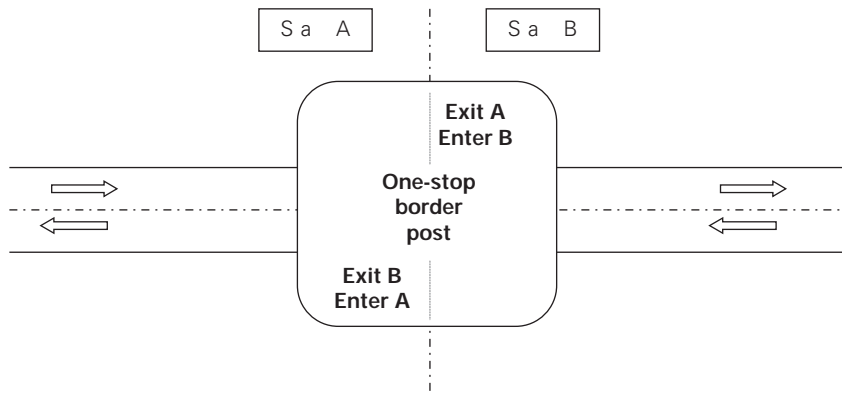
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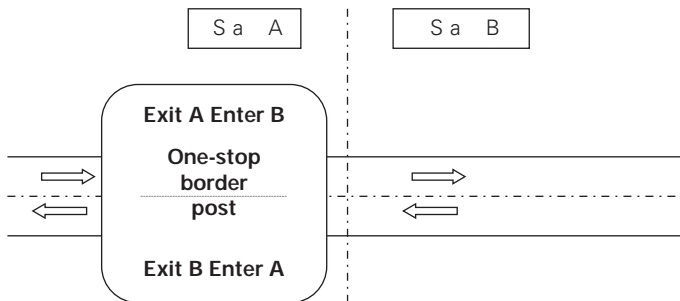
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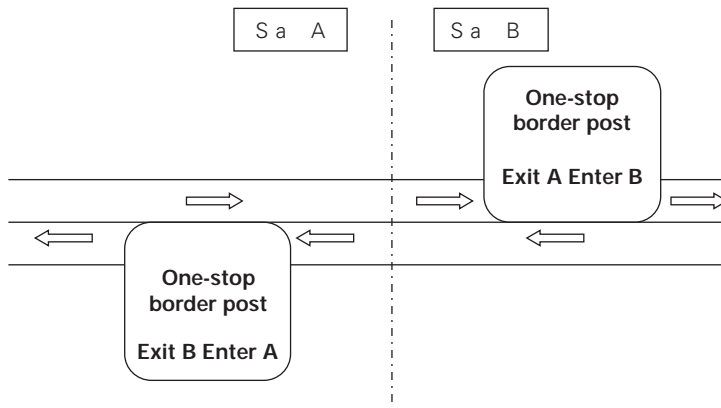
a. Straddle border facility



b. Common facility in one country



c. Juxtaposed facilities



Source: World Bank, based on CDC 2011.

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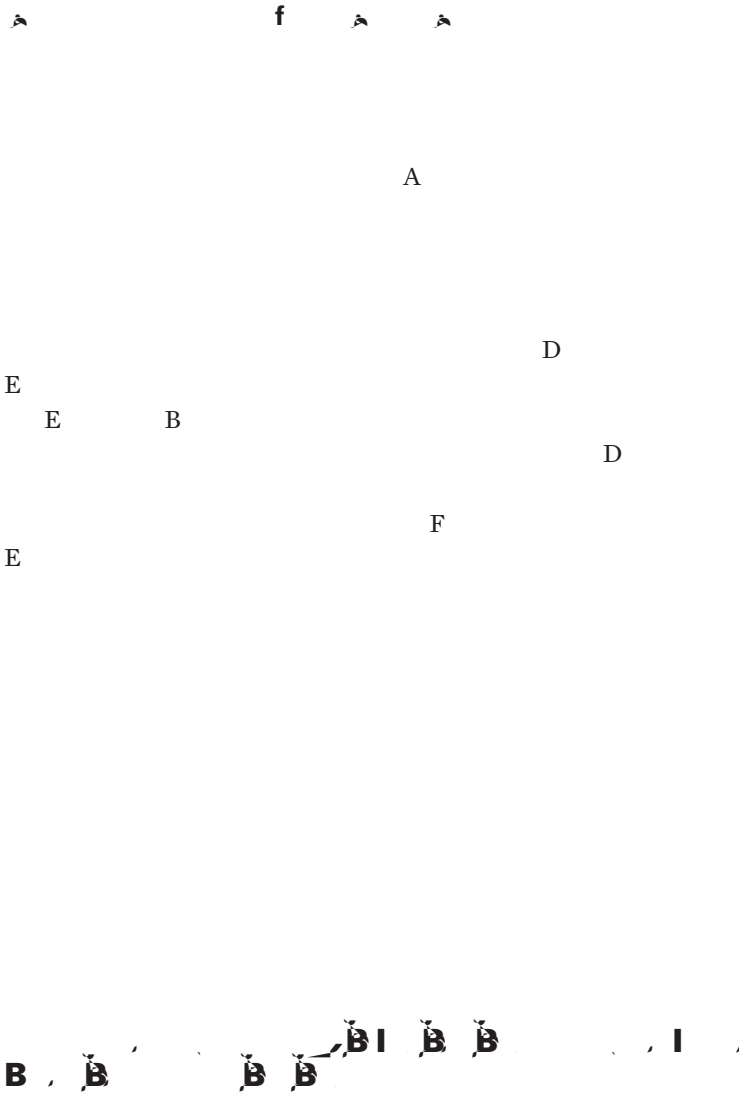
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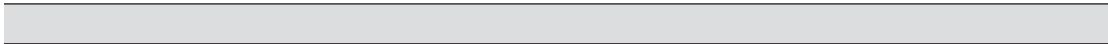
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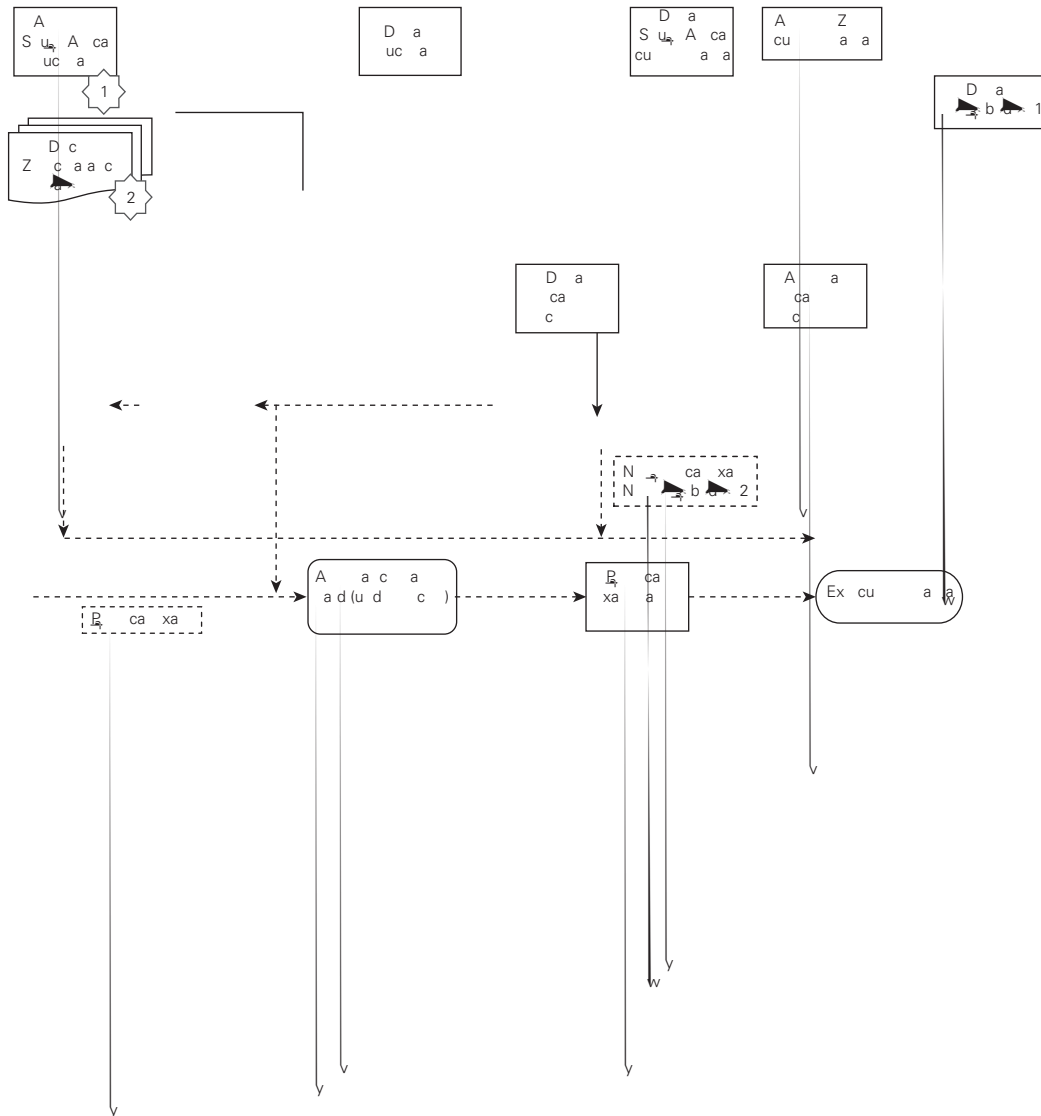
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B. Questions about Ports and Airports

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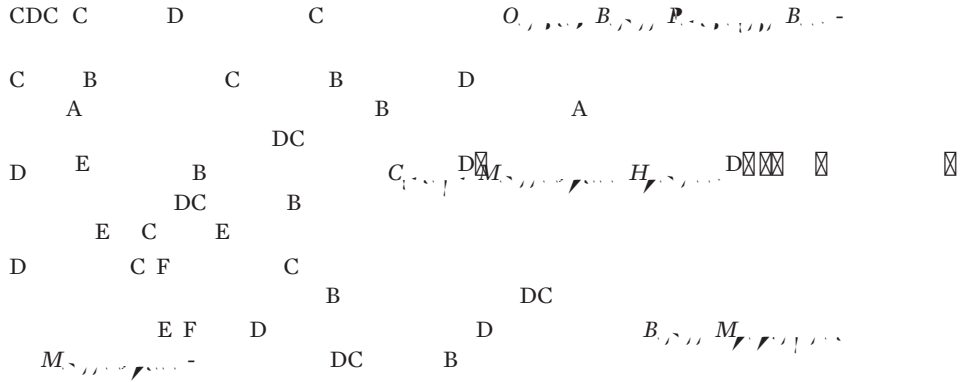
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MODULE 6

Customs Transit Regimes

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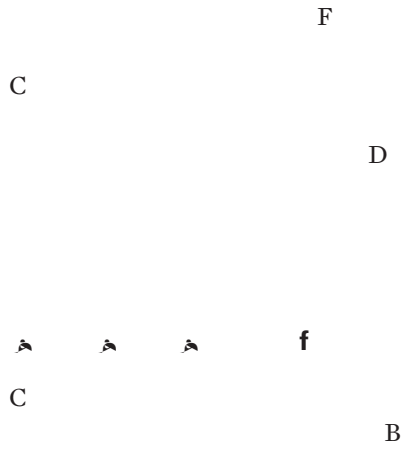
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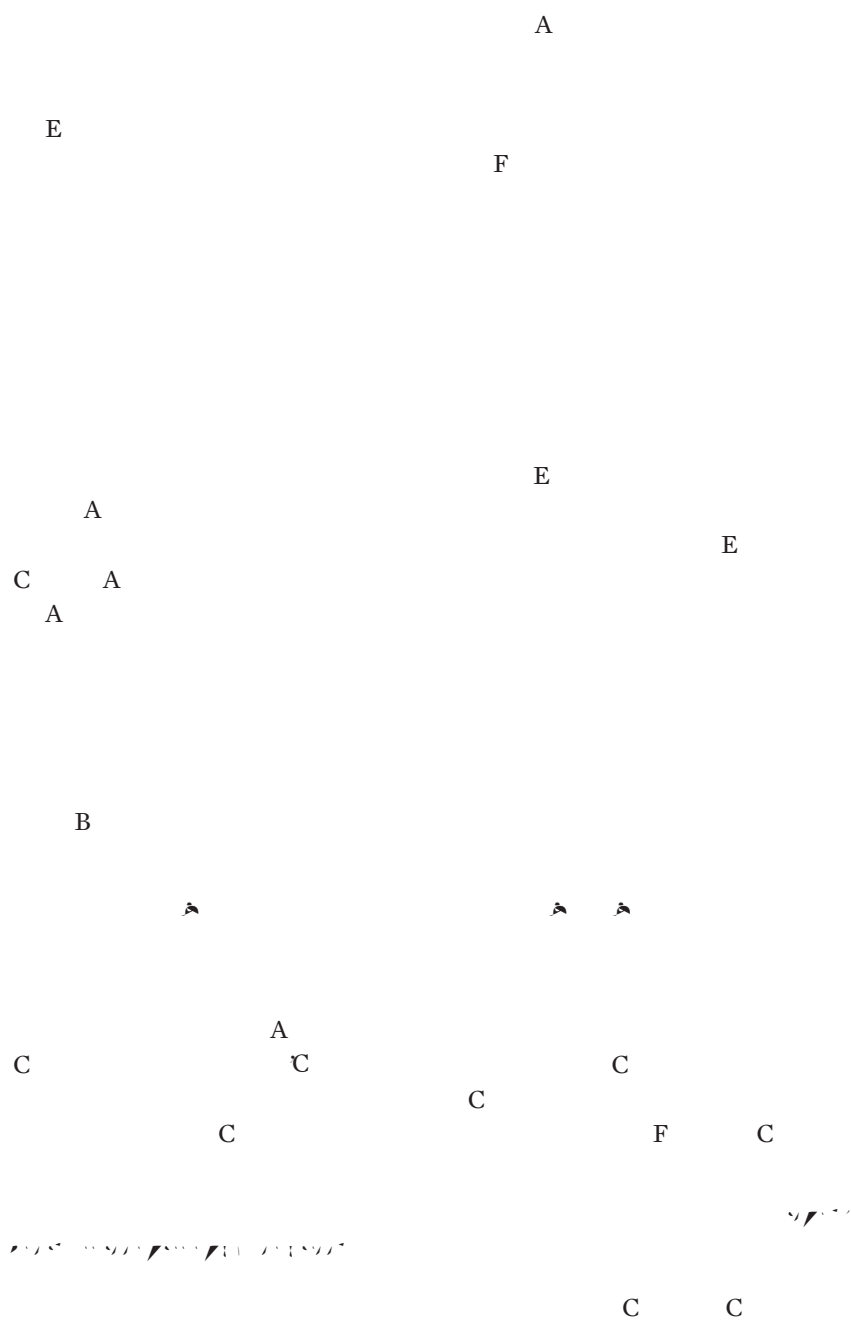
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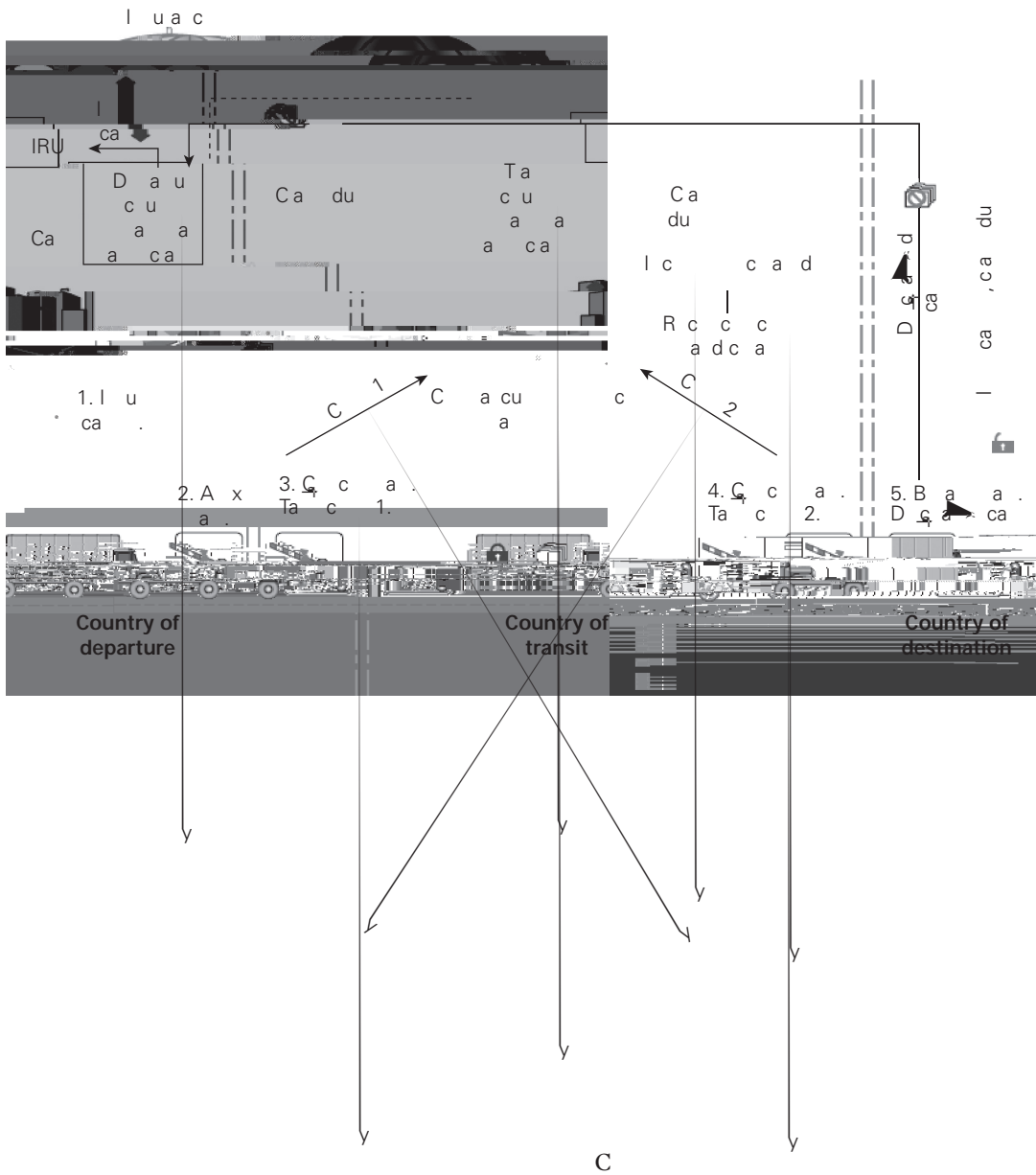
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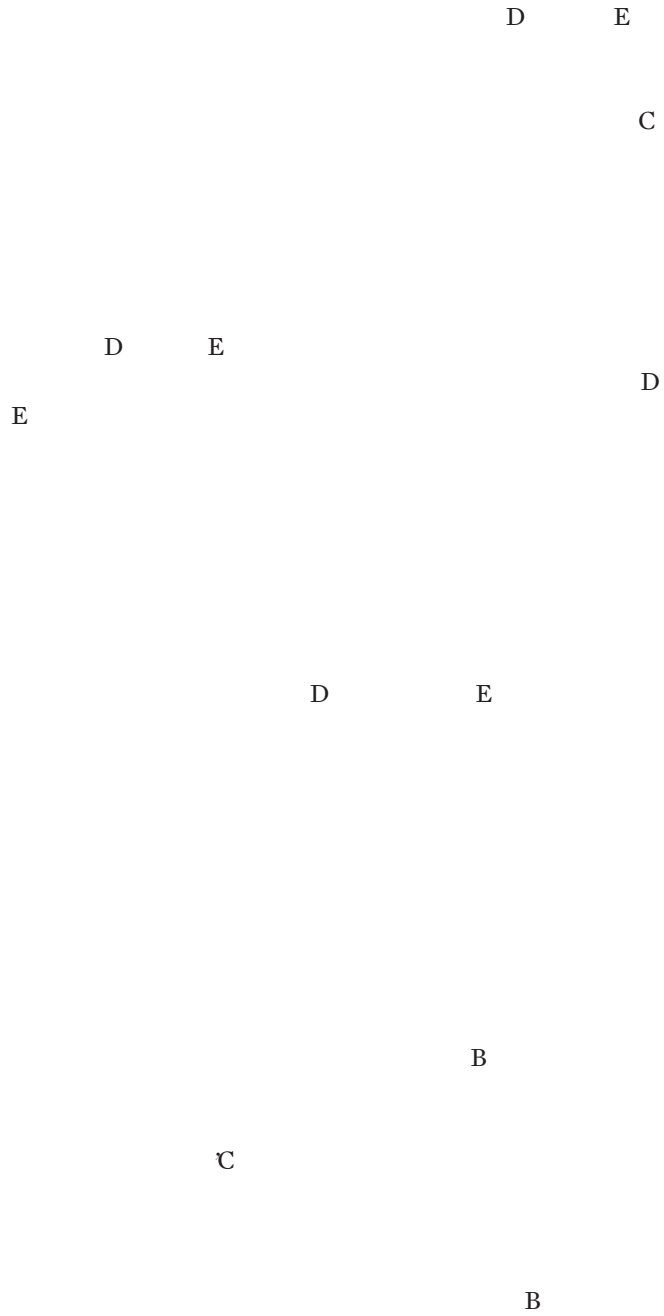
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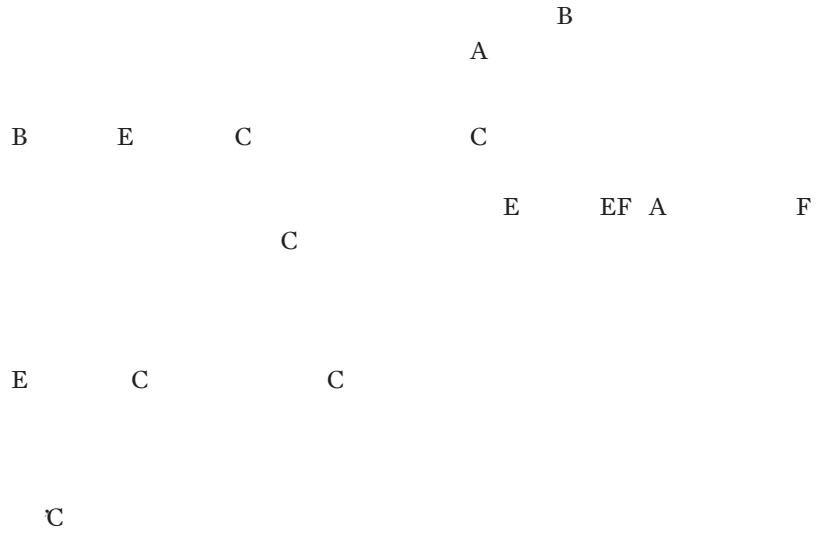
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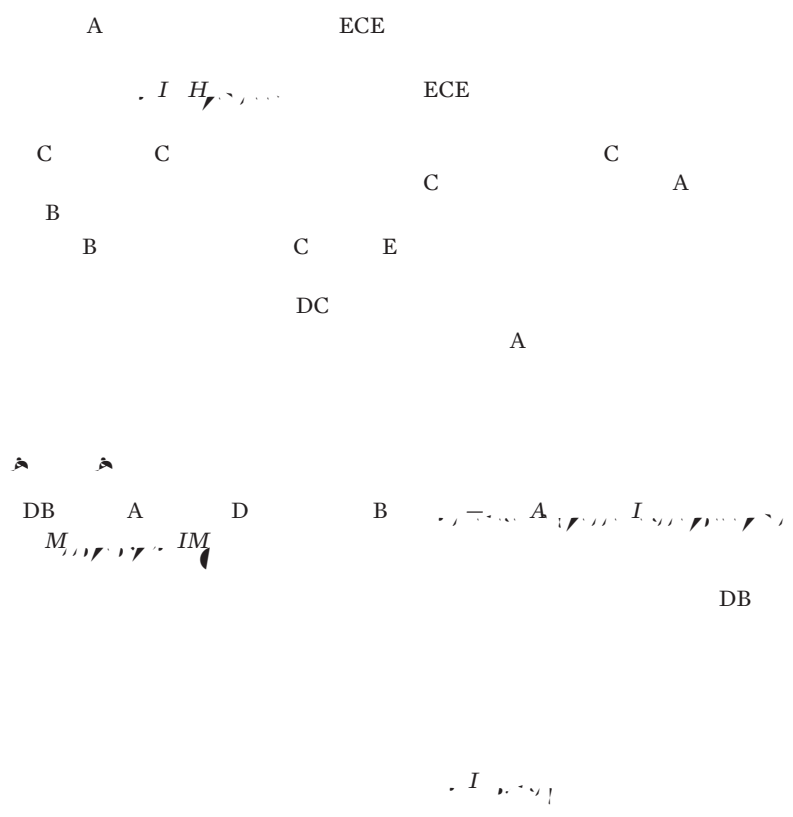
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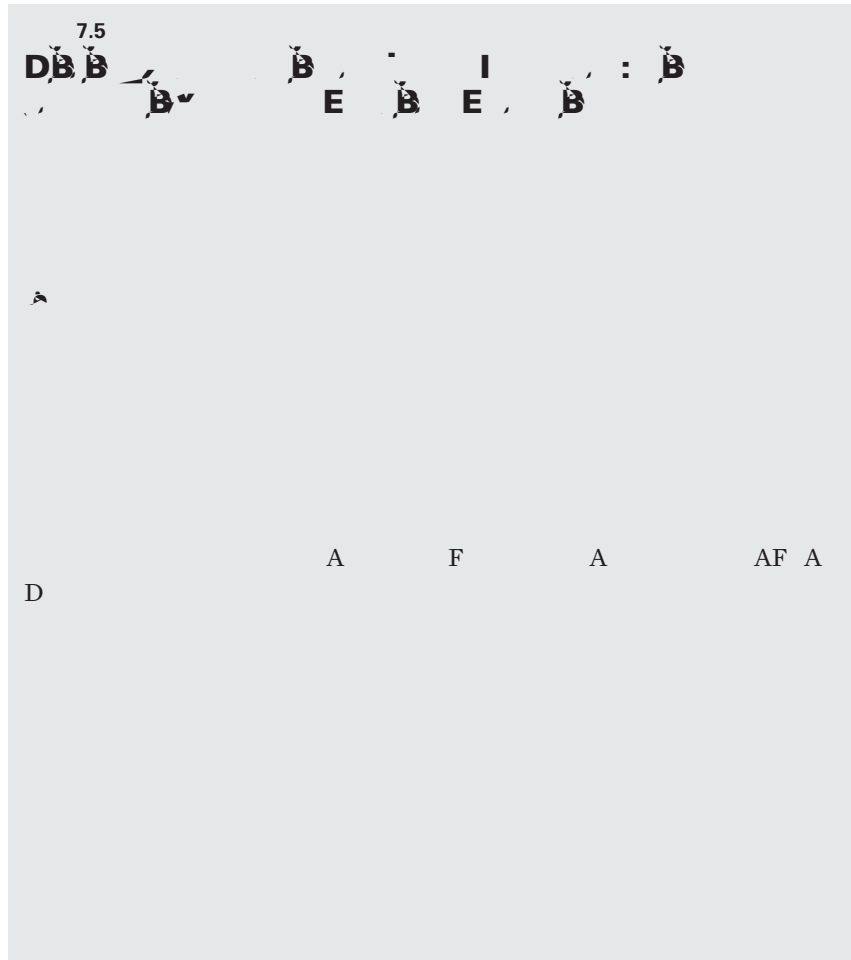
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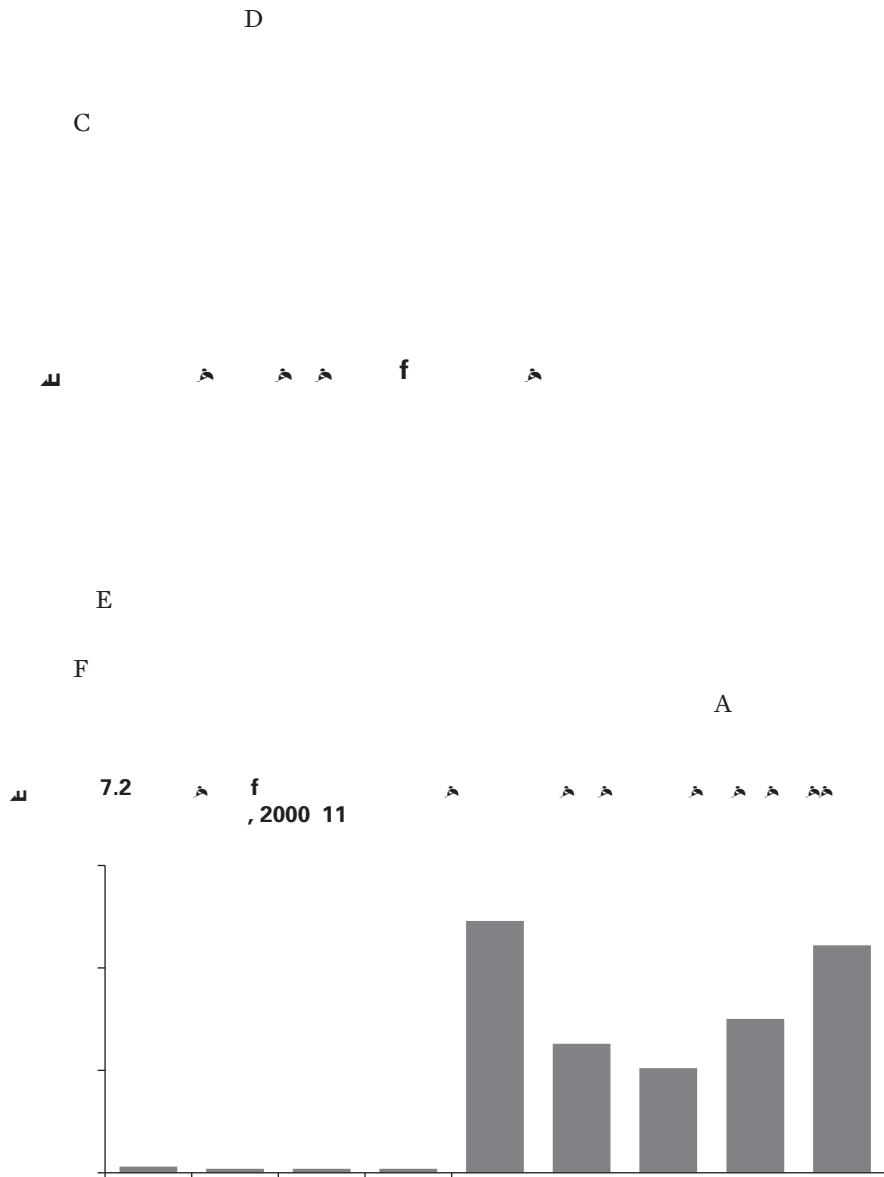
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Source: World Bank 2013.

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Structure of industry

- How are the trucking industries in the corridor countries structured?
- How old are the fleets?
- Are there financing schemes for fleet renewal?
- Are there national trucking professional associations?
- Is there a regional trucking association?
- Are there trucking industry oligopolies or cartels?

- Formalize and professionalize the trucking industry as a precondition for gradual liberalization of access to the profession and market.
- Provide a financing scheme for trucking fleet renewal.
- Harmonize regulation of the trucking industry across corridor countries.

Market access regulation (for domestic and international transport)

- What are the requirements for access to the profession of transport operator and to the market?
- Are the conditions different by type of transport (own account, commercial, exclusively domestic carriage, international carriage)?

- Strengthen regulation of quality and relax or remove quantity controls.

Regulation of international road transport services

- Are vehicle technical standards of different countries harmonized within the corridor?
- Are there agreements (bilateral, multilateral) on road transport within the corridor?

- Harmonize vehicle standards along the corridor.

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	<ul style="list-style-type: none"> • What are the transport permit requirements to provide services? • Is cabotage allowed? Are any types of traffic exempted from permit or quota requirements? • Are there transit limitations? • Are there third-country traffic limitations? • Are routes and border-crossing points prescribed? • Are there taxation-related constraints? • Are facilitation measures (driver, vehicle, cargo) in place? • Are such measures publicized? 	<ul style="list-style-type: none"> • Conclude a comprehensive road transport agreement among corridor countries based on fundamental elements. • Adopt a phased market integration approach for corridor and neighboring countries.
Transit management	<ul style="list-style-type: none"> • What is the impact of transit-related requirements (such as guarantees) on transport operations? 	<ul style="list-style-type: none"> • Modernize transit regime management, based on recommendations in Module 6.
Movement of drivers	<ul style="list-style-type: none"> • Are visas required for truck drivers? • How long are they valid? • Is there mutual recognition of driver's licenses? • Must professional drivers have a permit or license? 	<ul style="list-style-type: none"> • Adopt multiple-entry or visa-free entry for truck drivers. • Introduce harmonized training and testing for drivers. • Standardize vehicle licenses, including professional driver's permits.

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C. Questions for the Trucking Regulatory Authority—General Regulation

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E. Questions for the Authority of Individual Road Sections

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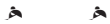
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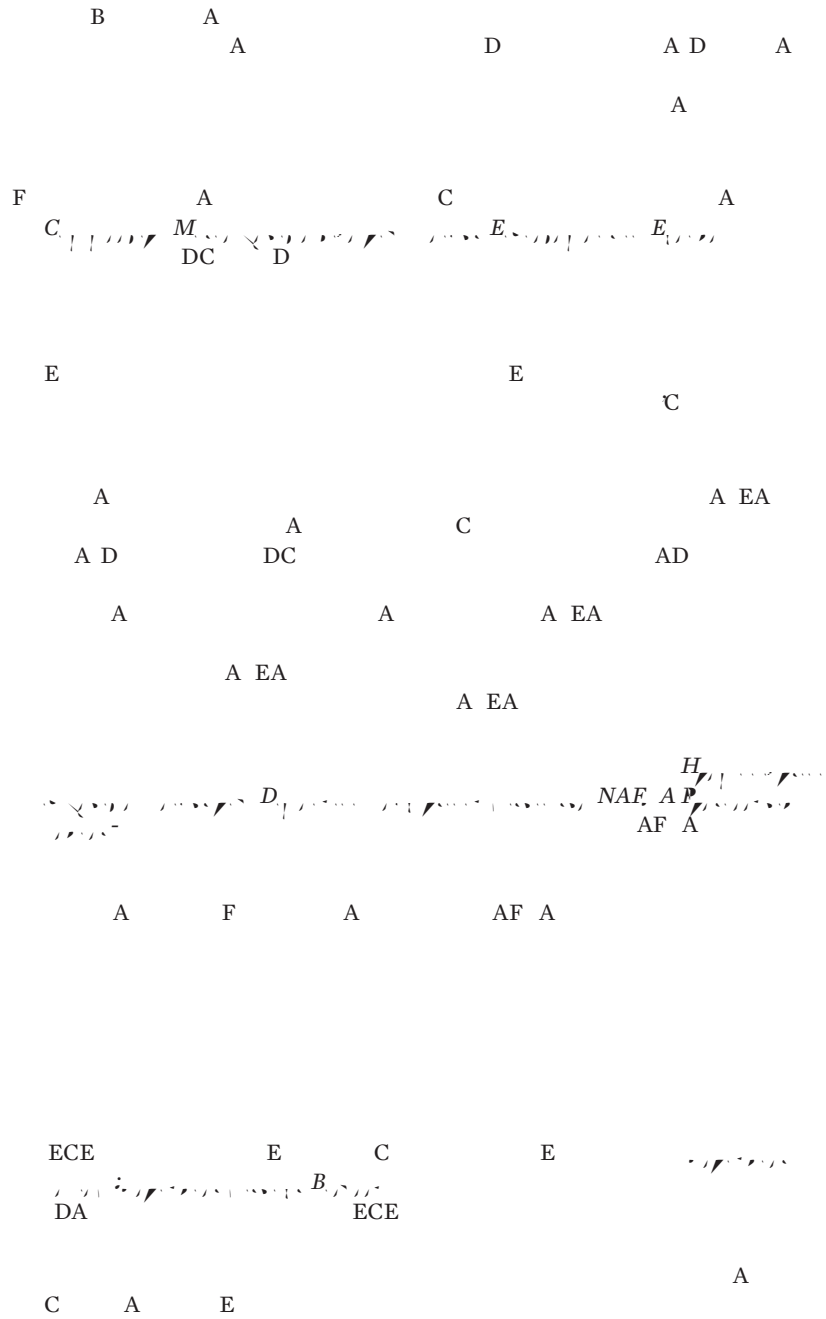
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MODULE 8



Rail Transport

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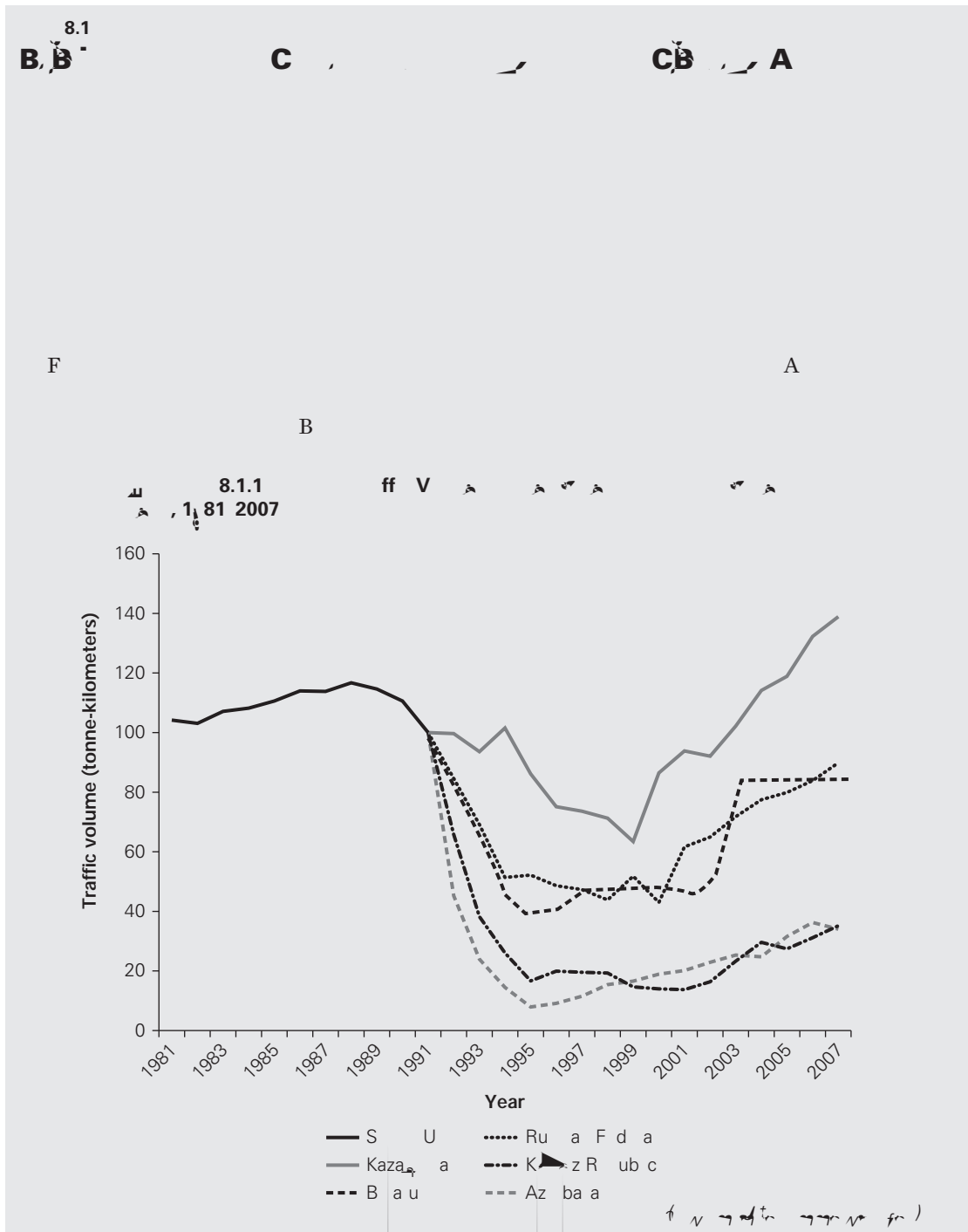
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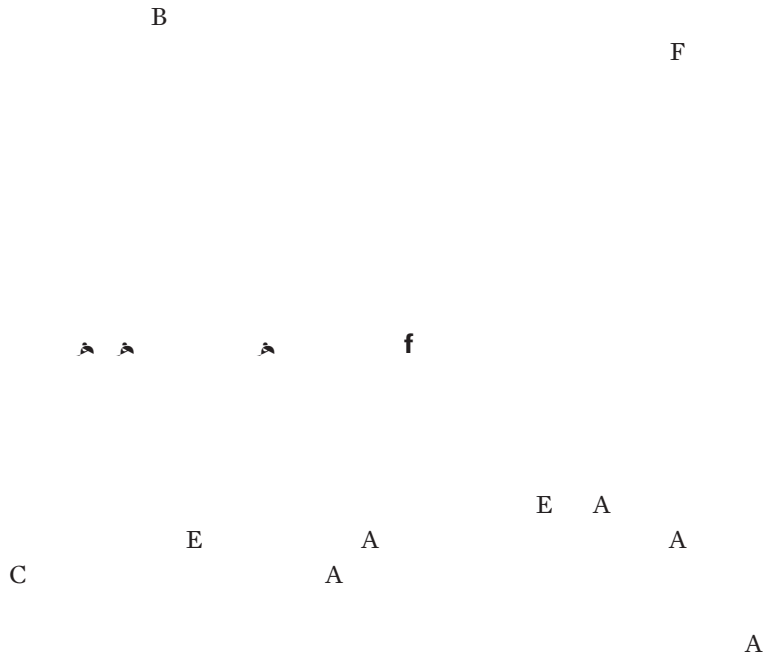


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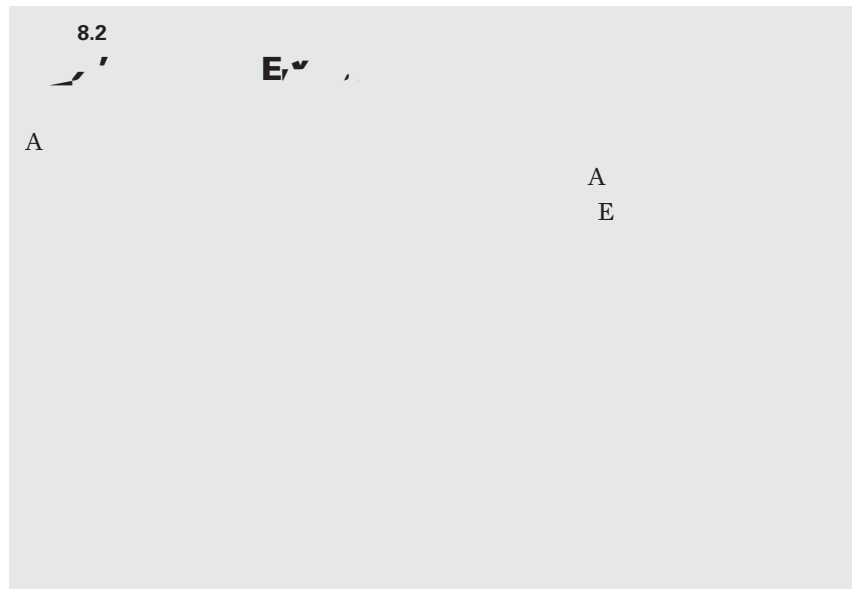


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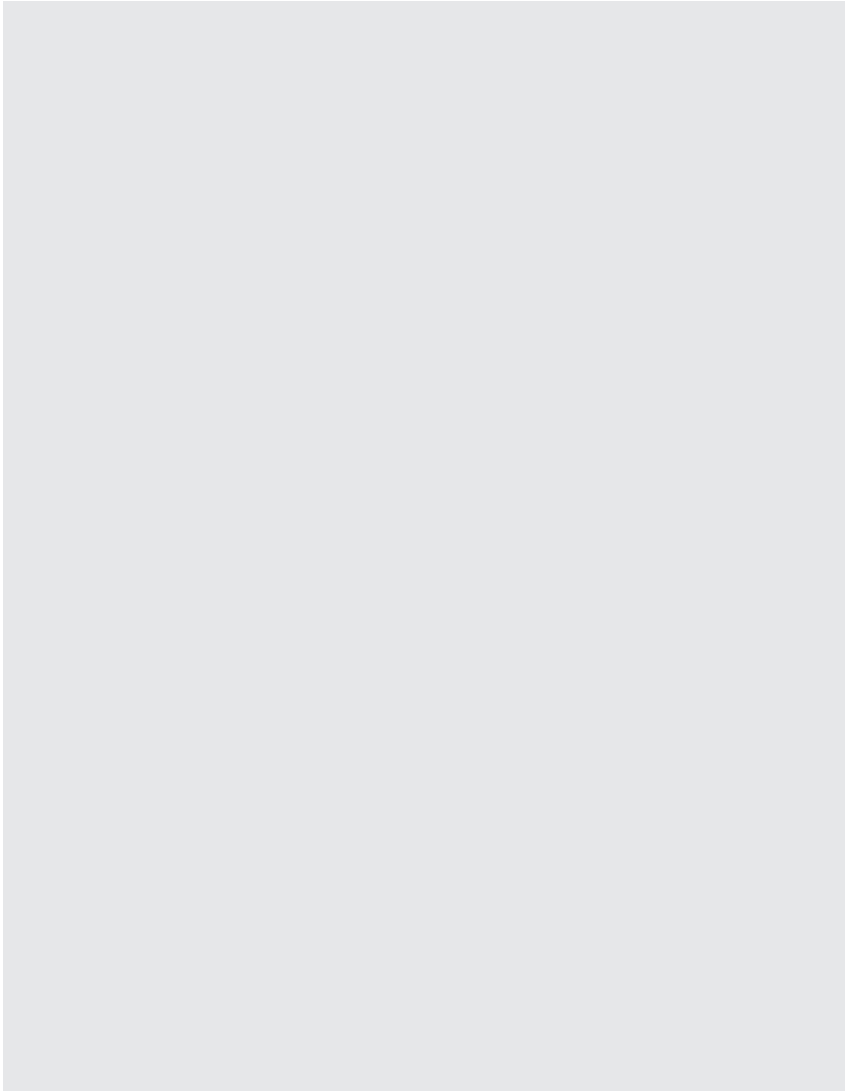
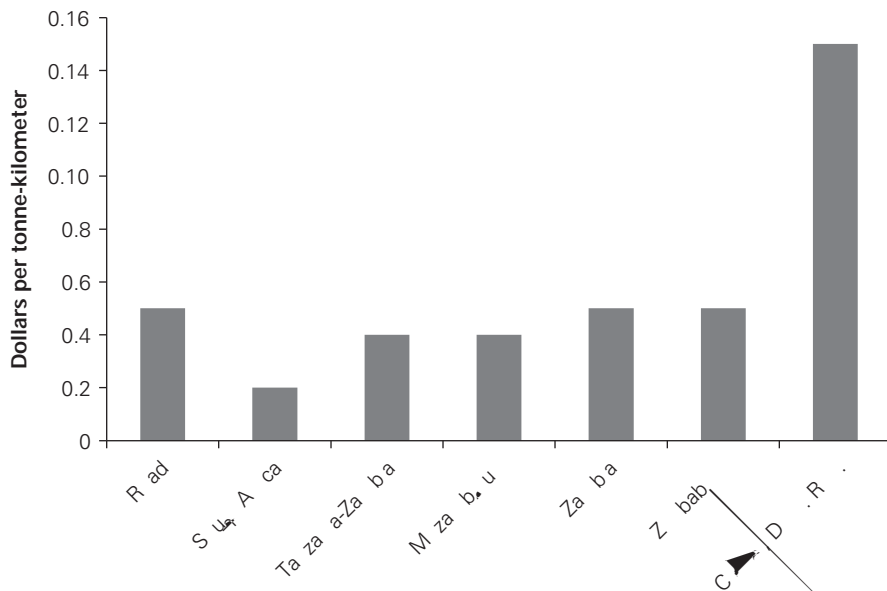


Figure 8.1: Freight rates for rail operators in Africa, 2010



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Performance of rail system	<ul style="list-style-type: none"> • What commodities and what quantities are moved by rail? • What is the capacity of the system? • What is potential traffic with improvements? • What are the cost, time, and reliability of the system? • What are the current and potential backhaul cargos? • Can the system move refrigerated containers? • Who owns and operates the system? 	<ul style="list-style-type: none"> • Identify commodities for which rail has a distinct advantage, especially bulk or large volumes of containers. • Explore revival of the railway through concessioning to improve performance, when warranted by business fundamentals. • Concession corridor railways in different countries to the same operator.
Network interconnectivity	<ul style="list-style-type: none"> • What is the current degree of interconnection of railway services in the corridor? • Why and where are trains broken up? • What priority is given to freight versus passenger trains? 	<ul style="list-style-type: none"> • Conclude bilateral and multilateral agreements for seamless international rail freight movement. • Operate rail services on a corridor basis for seamless movement, and run block trains. • Encourage joint operator marketing of services and through billing for services. • Facilitate fast interchange of wagons and exchange of locomotives where cross-border operations are not possible.
Competition and complementarity between road and rail services	<ul style="list-style-type: none"> • What are the strengths of rail over other modes? • What is the relative cost, time performance, and reliability of rail? • What is the minimum threshold for traffic flows for the short-run viability and long-term financial sustainability of rail? 	<ul style="list-style-type: none"> • Improve railway performance, especially reliability and service frequency.
Customs and border management	<ul style="list-style-type: none"> • Are there separate procedures for clearance of railborne cargo? • Where does clearance take place? • Is railborne cargo subject to transit controls? 	<ul style="list-style-type: none"> • Arrange with customs for light and fast transit procedures for rail traffic.

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A. Questions about the Rail Network and Services on the Corridor

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B. Questions about Railway Operators

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C. Questions about Cross-Border Movements

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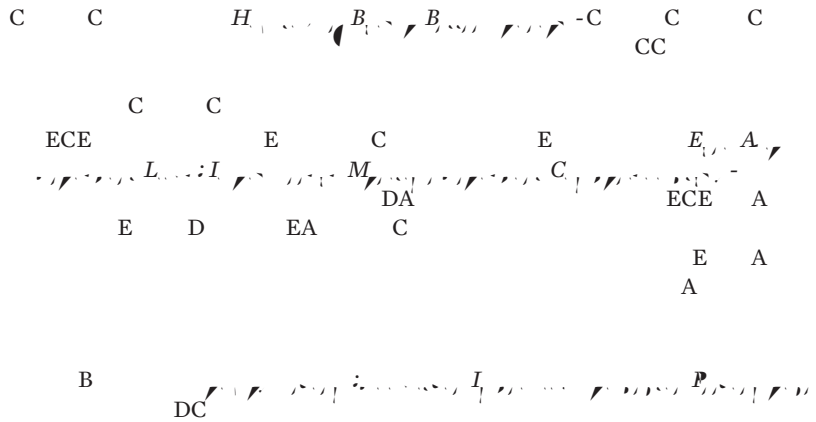
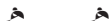
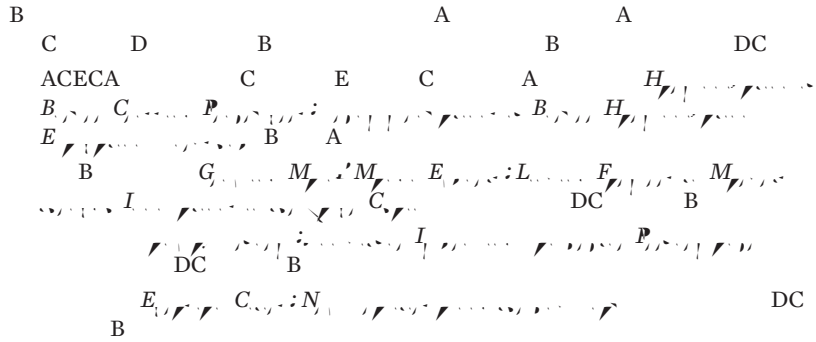
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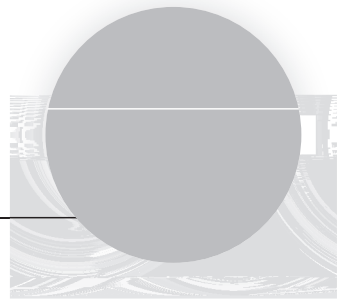


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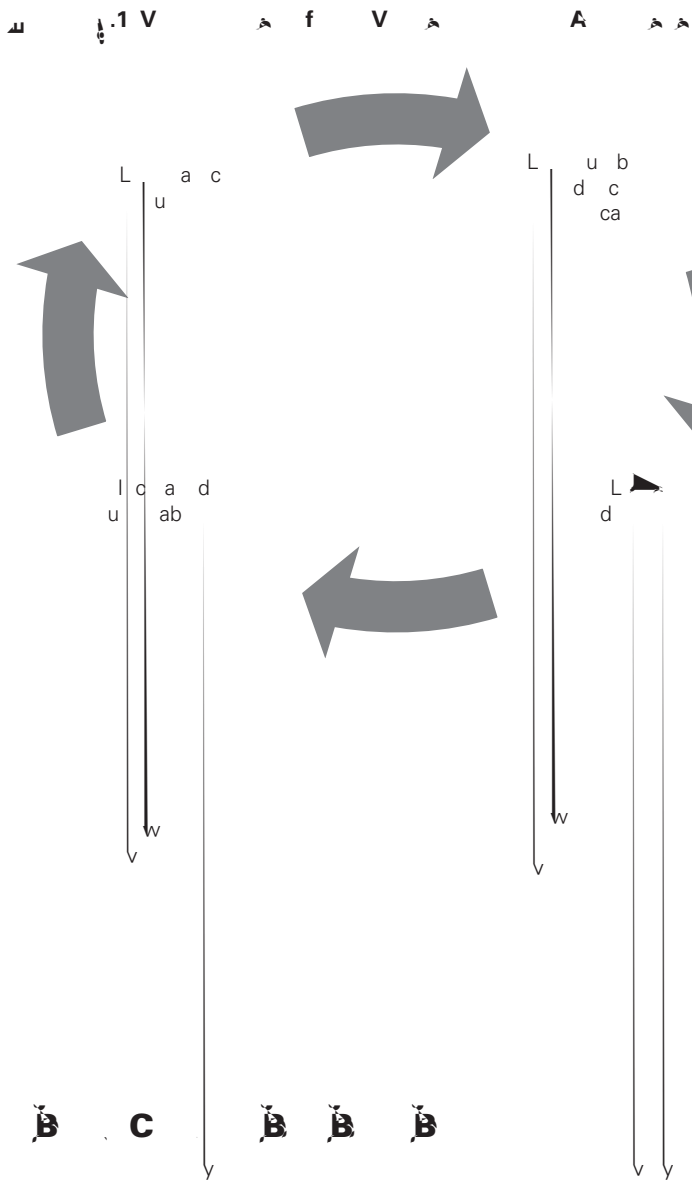
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MODULE 9

Shipping and Maritime Transport

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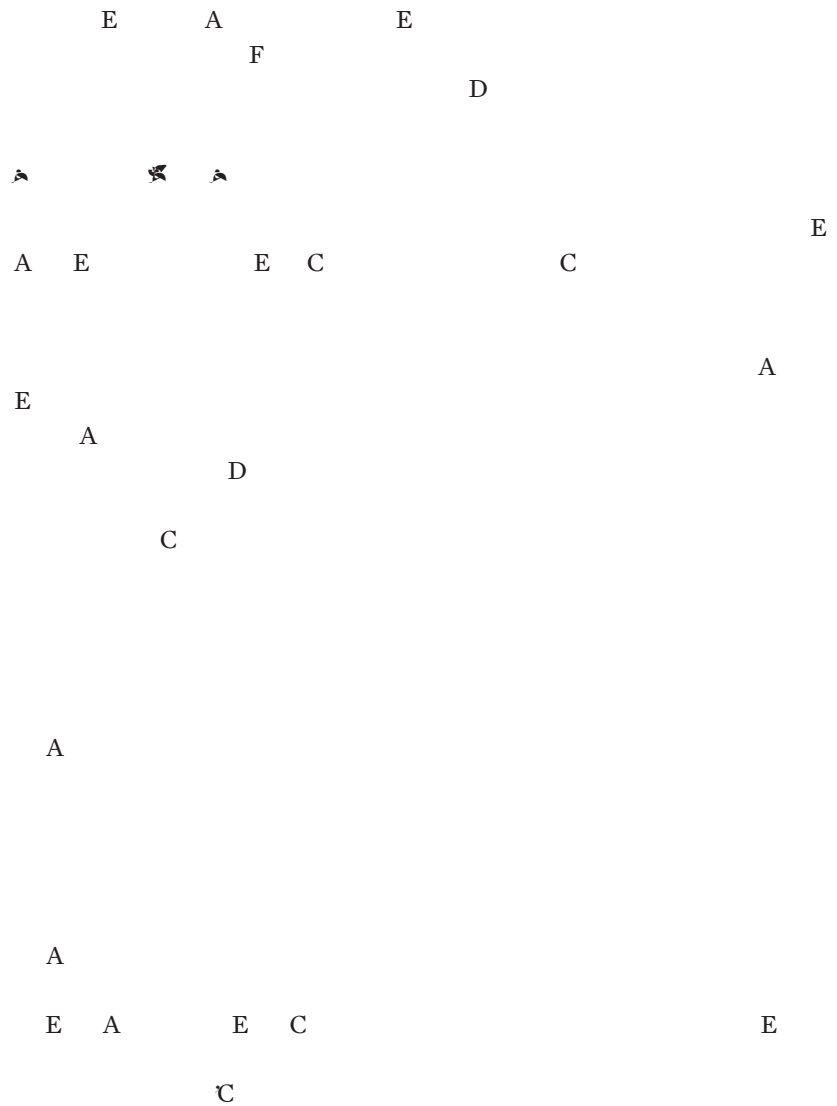
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B. Container Shipping Line

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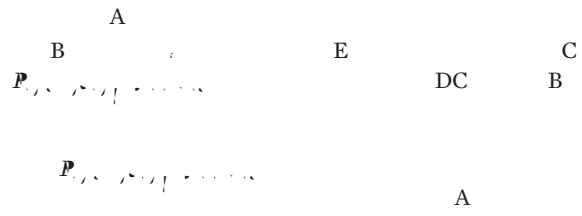
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MODULE 10

Port Operations

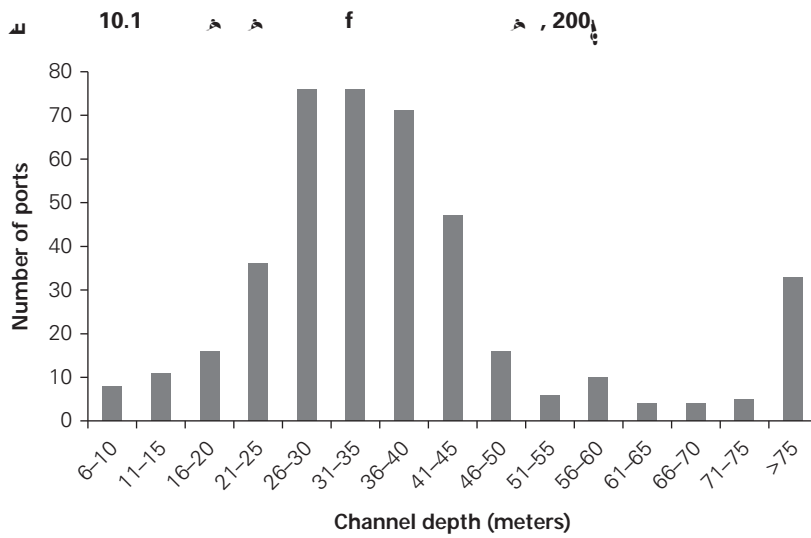
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Source: Rodrigue, Comtois, and Slack 2009.

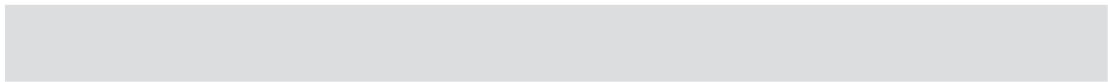
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Turning basin.

	Number of vessels	Number of containers (TEU)	TEU per vessel	Number of vessels	Number of containers (TEU)	TEU per vessel
Red	5	10	6.0	42	4.2	
Yellow	5	7	5.5	36	3.6	
Green	10	6	5.0	32	3.2	
MITA nonpriority	40	6	5.0	32	3.2	
MITA priority	40	4	4.0	25	2.5	

Source: World Bank 2011.

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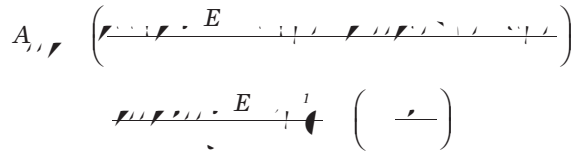
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Straddle carrier				3						10.0
				4						7.5
Gantry crane				3						10.0
				4						7.5
				5						6.0

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Forklifts, side loaders	2	19.0
	3	13.0

Source: Memos 2004.

Note: TEU = 20-foot equivalent unit.



Channels, berths, and turning circles.

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Port performance	<ul style="list-style-type: none">• What is the port productivity per crane, hectare, and berth?	<ul style="list-style-type: none">• Improve port systems and enhance productivity.
Cargo dwell time	<ul style="list-style-type: none">• What is the dwell time of cargo in the port and on the waterside and landside?• What factors add to dwell time?	<ul style="list-style-type: none">• Adopt a holistic approach to reducing dwell time.• Adopt a participatory approach to reducing dwell time.
Port infrastructure	<ul style="list-style-type: none">• Does the port infrastructure limit port capacity, vessel access, and size?• What are the proposed port development plans?	<ul style="list-style-type: none">• Expand port capacity.• Deepen access and berths.
Port management	<ul style="list-style-type: none">• Are all port users consulted on port management and performance?• Are upstream issues considered in port developments?	<ul style="list-style-type: none">• Support port users forums.• Introduce a port community system and integrated information technology (IT) systems.
Container freight station and dry ports	<ul style="list-style-type: none">• Is the port complemented by container freight stations and dry ports?• What were the main reasons for developing the container freight stations and dry ports?	<ul style="list-style-type: none">• Integrate container freight stations and dry ports into port processes to reduce overall logistics costs.• Coordinate road and rail operations connected to the port.

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A. Port Operations and Management

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Capital investment and maintenance			
Source of funding			
Infrastructure			
Wharf equipment			
Intermodal connections			
Ground handling operations			
Pricing			
Collection of charges			
Security			
Coordination with customs and other regulatory activities			

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B. Hinterland Connectivity

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C. Port Information Series

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D. Port Development Priorities

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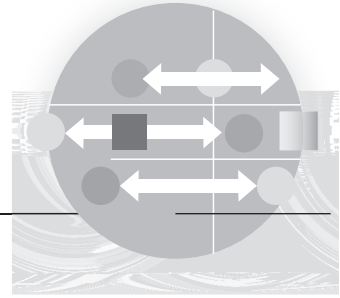
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MODULE 11



Land Access to Ports

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Port traffic	<ul style="list-style-type: none"> • If there is a rail link, does it serve container berths or bulk and general freight berths? • Are the in-port rail terminals in a convenient location that minimizes train marshalling? • Is there a prebooking or appointment system for trucks entering the port or port terminals? • Does the layout of the port road network minimize traffic conflicts? 	<ul style="list-style-type: none"> • Redesign rail access links and in-port rail locations. • Separate trains for each port terminal. • Use push-pull train operation to reduce locomotive shunting. • Carry out final train formation for remote destinations away from port. • Introduce appointment system for trucks. • Redesign turning movements after gate entry to reduce conflicts with local traffic.
Empty containers	<ul style="list-style-type: none"> • Are empty containers stored in the port container terminal? • Are there any port activities that result in traffic queues within the port (such as waiting for trucks to be scanned and weighed)? • Are there other city locations for storage of empty containers? 	<ul style="list-style-type: none"> • Store empty containers outside the port. • If space is available, increase to meet benchmarks. • Provide separate lanes for traffic requiring scanning and other inspections, which often create long queues within the port. • Create empty storage capacity closer to demand for export containers (at inland container depots, for example).
Port gates	<ul style="list-style-type: none"> • Are there enough port gates for the volume of traffic? • Are gate and within-port inspections of drivers and cargo carried out in a logical and time-minimizing way? • Is there a preferential gate system for accredited trucking companies? • Do the port gates lead directly onto the city road network? 	<ul style="list-style-type: none"> • Tailor the number of gates to different types of movements, volume of traffic, and processing and inspection requirements. • Carry out vehicle inspections away from gates. • Introduce a preferential system for preapproved truck operators and logistics service providers. • Relocate port gates to lead onto dedicated access links.

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A. Questions for Port Authority or Port Operator

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B. Questions for Truck Operators

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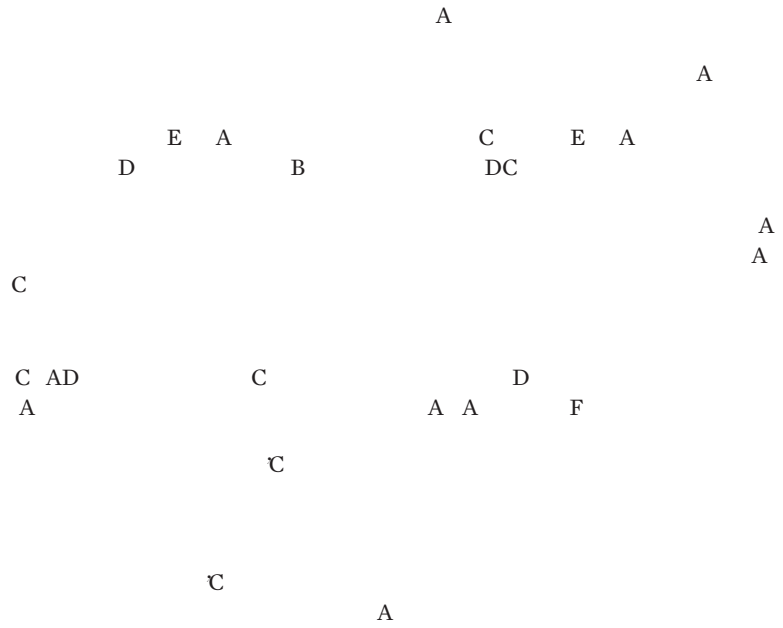
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MODULE 12

Airfreight

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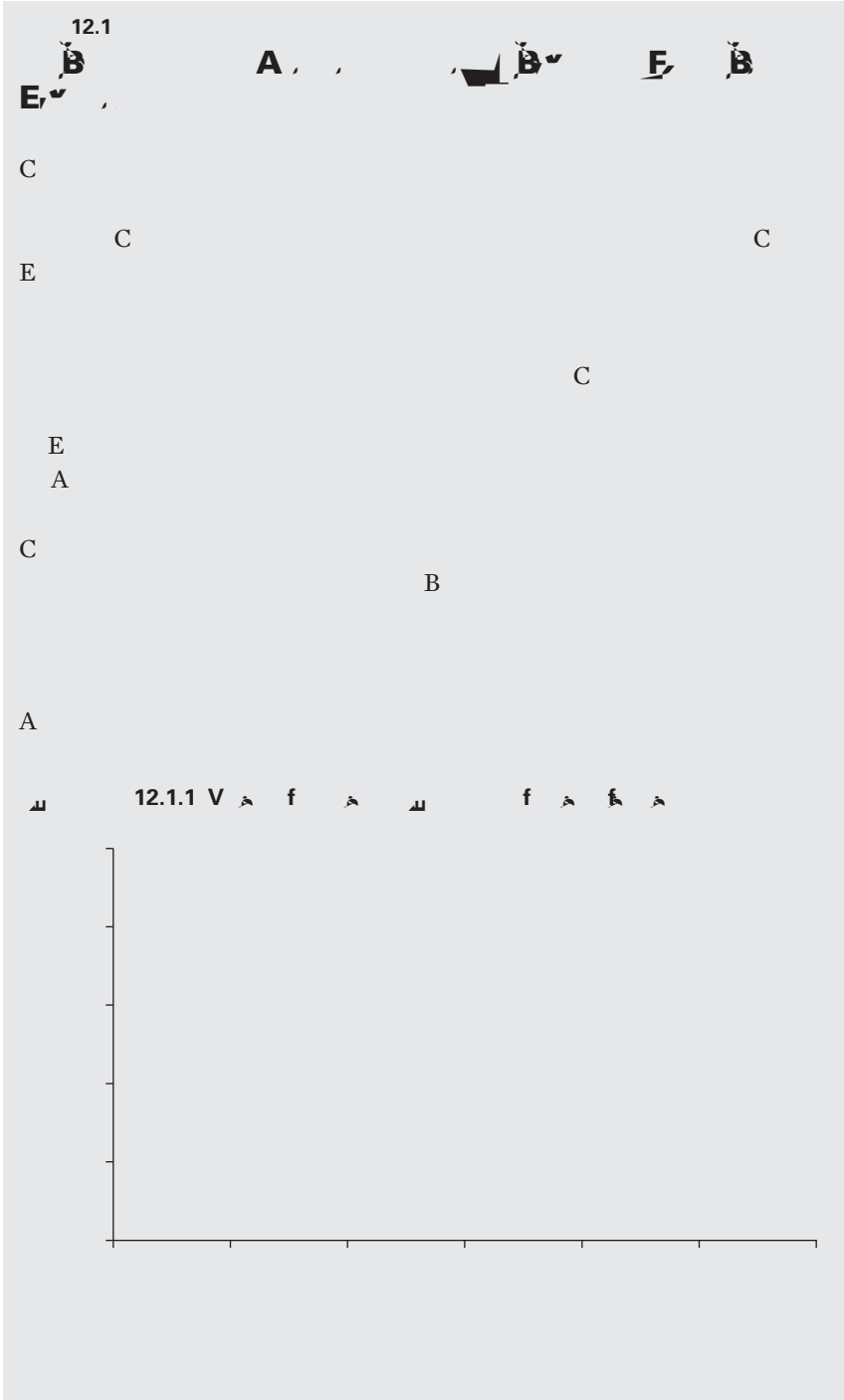
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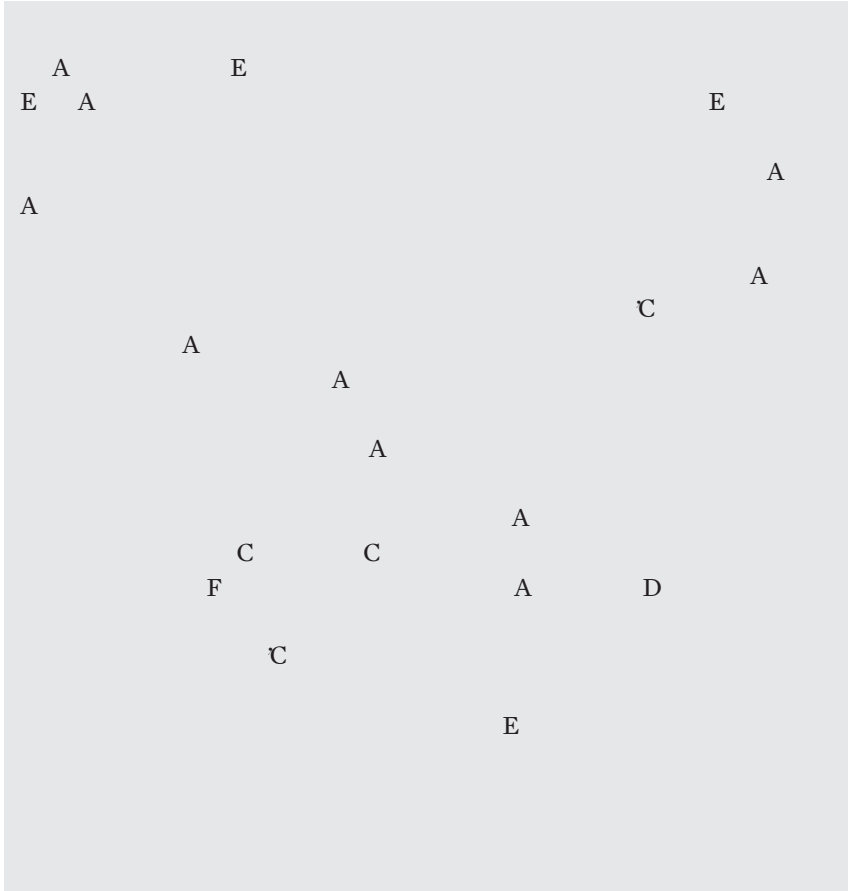
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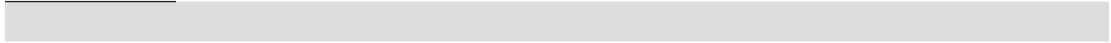
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Corridor Impact Evaluation

MODULE 13

**Evaluating the Economic Impact
of a Corridor**

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	Rank	Weight	Score
Contribution to project cost	1	1	1
Importance in achievement of project objectives	3	3	3
Contribution to expected project benefits	2	2	2

Note: A low rank implies less subjectivity and greater ease of implementation.

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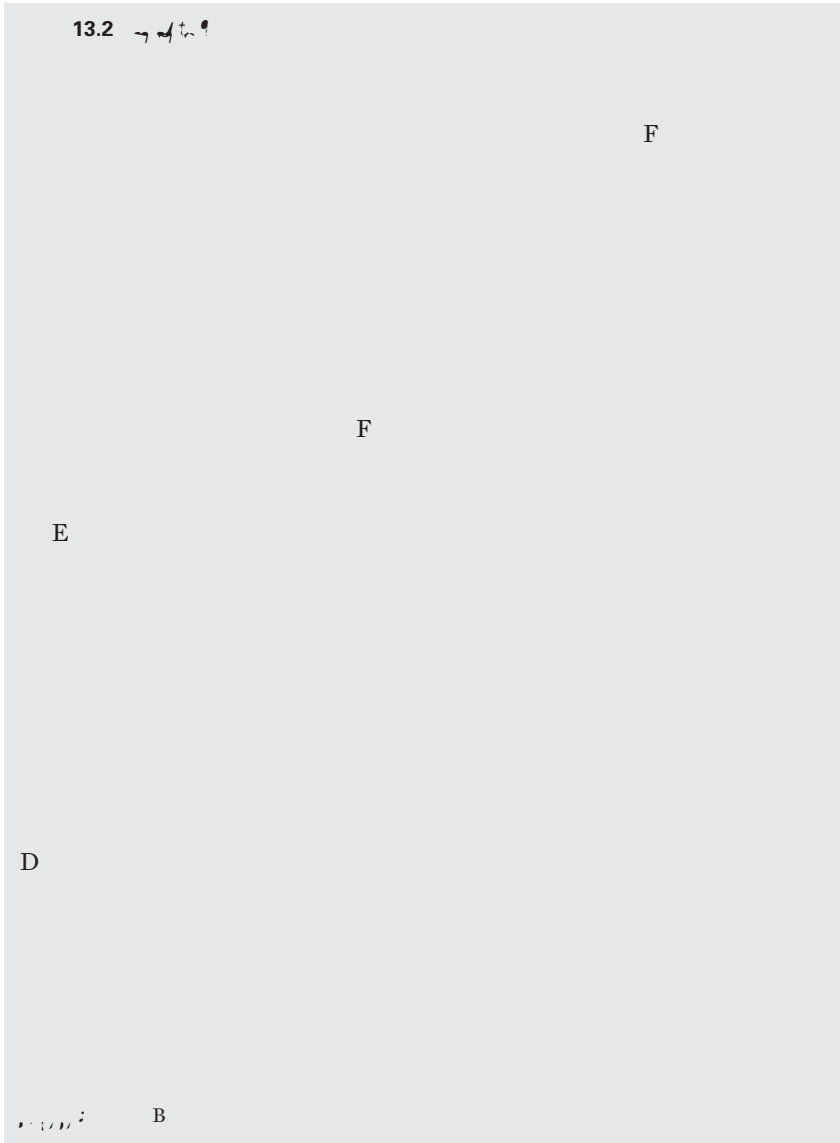
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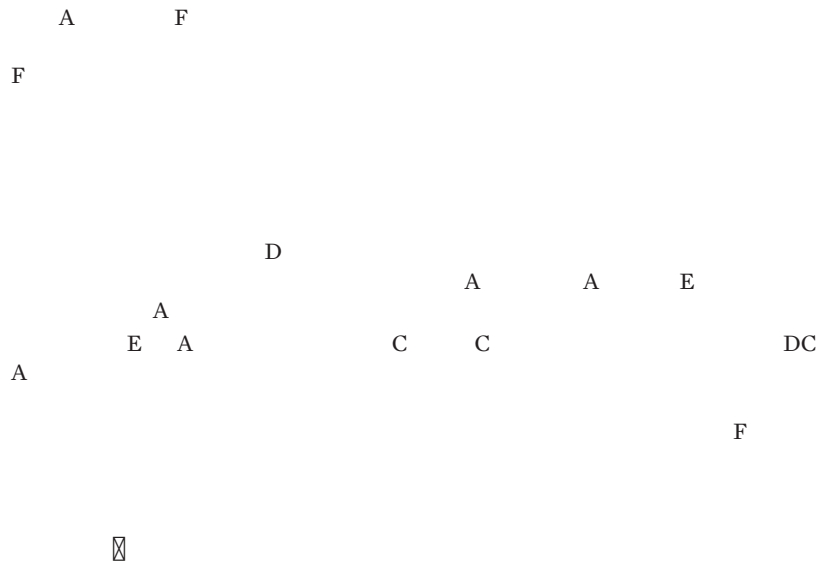
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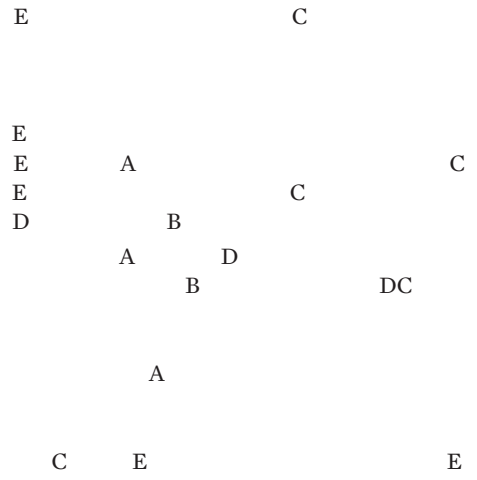
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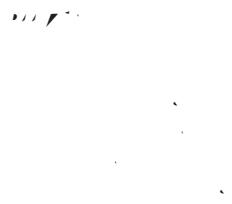
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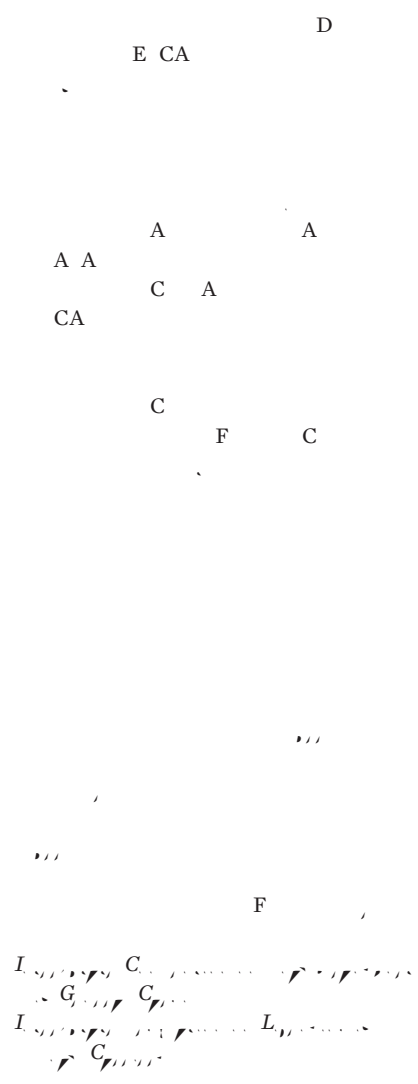
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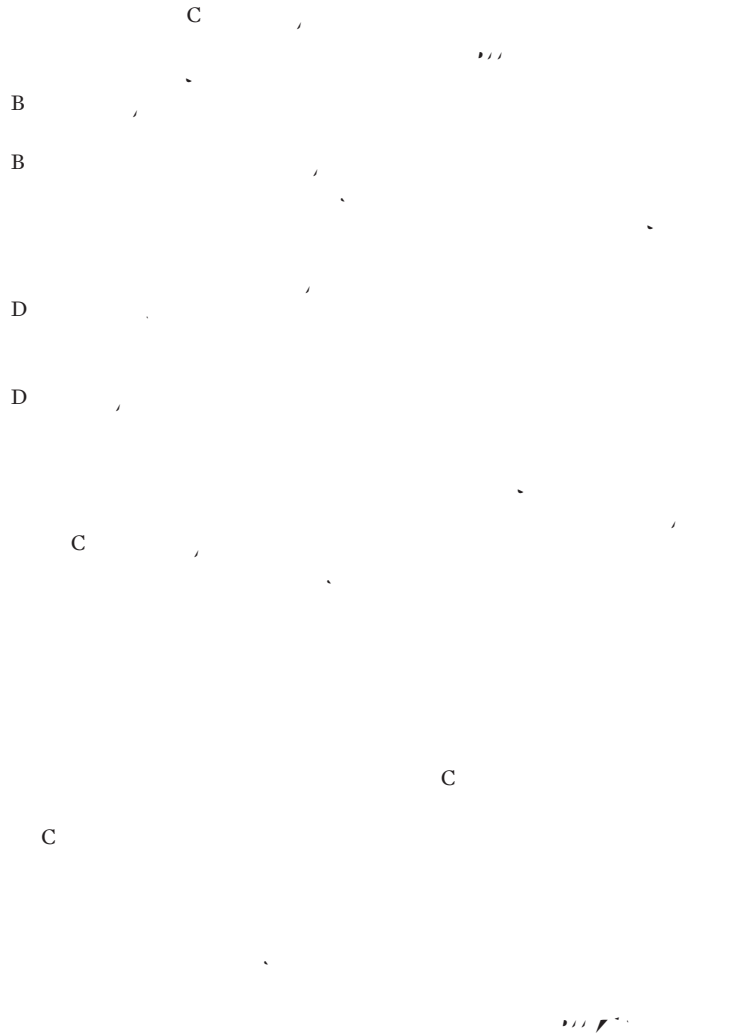
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