



CLUSTERS IN THE CARIBBEAN:

Understanding their Characteristics, Defining Policies
for their Development

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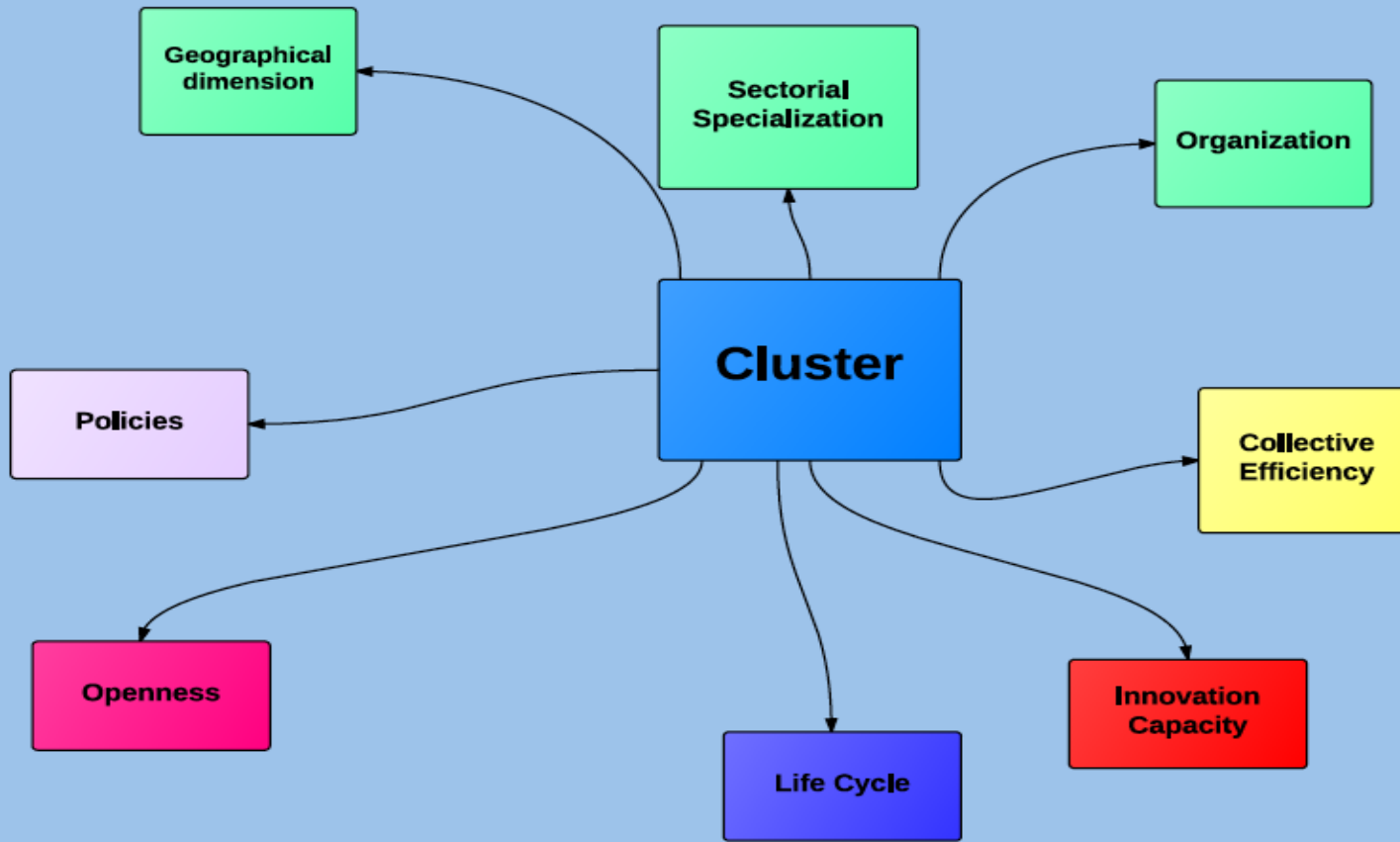
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The universe of the study

- 32 Caribbean clusters;
- Sectors: natural resources based industries, comprising agriculture, agro-processing, forestry, aquaculture and energy; manufacturing; and services, embracing tourism and creative industries;
- Countries: Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, St-Lucia, St-Vincent & Grenadines, Suriname, Trinidad and Tobago.

The Definition of Clusters



The main findings (1)

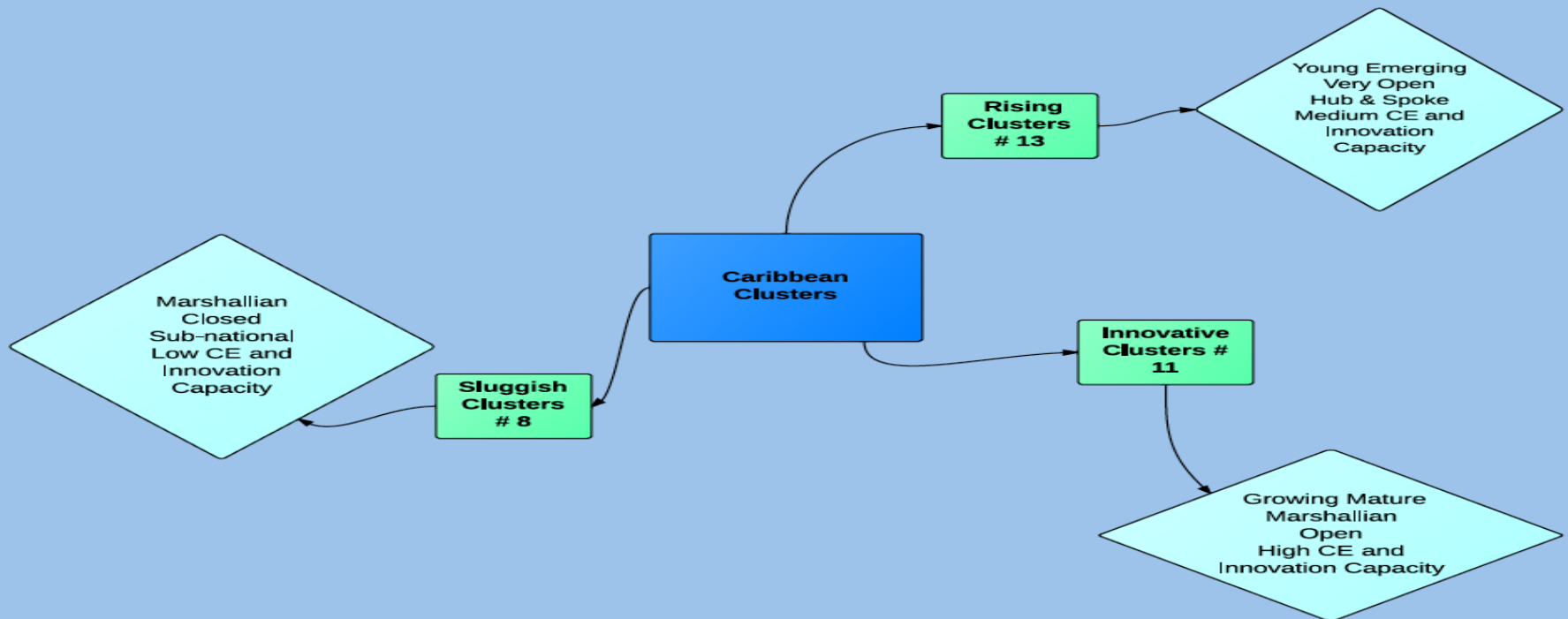
- *Sectorial dimension*: predominance of the **tertiary industry** (tourism, creative industries, business and financial services) and **exploitation of natural resources**, with only two clusters exclusively specialized in manufacturing;
- *Geographical dimension*: half of the clusters are **national**. The *local* dimension is predominant in agricultural clusters and in tourism. *Urban* clusters are in the service industry. Only 4 *inter-Caribbean* clusters;
- *Organizational structure*: Many, very diverse, **Marshallian clusters**. 5 *H&S* clusters in which a multinational is the hub. Only one cluster has been classified as *survival*.

The main findings (2)

- **Collective Efficiency**
 - External economies (input availability, information sharing and market access);
 - Joint action (cooperation in logistics, high trust; cooperation is pushed by environmental concerns);
- **Innovation capacity** (extra knowledge sources through hub companies, business association and input suppliers; labor mobility);
- **Openness** (local presence of MNCs and/or GVC; regional markets);
- **Cluster policies** (some spontaneous clusters, a variety of existing cluster policies in the inception and development phases).

A typology of clusters

- Through cluster analysis – a multivariate statistical technique - we have identified three groups of clusters with similar characteristics.

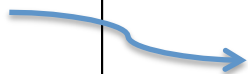


Some evidence about the 3 groups

- *The **Rising Clusters*** and the **Innovative Clusters** share some common key features:
 - They have **external channels** (i.e. via MNCs or GVCs), through which they tap into knowledge and technologies and connect with foreign markets;
 - Their degree of **collective efficiency is high** (e.g. specialized labor market; collective projects for sharing transportation costs, adopting international standards, introducing environmental best practices or jointly selling products in the international markets);
- **Innovative Clusters** display a **much higher innovative capacity** as compared to **Rising Clusters**, which tend to be **younger** and therefore have accumulated lower technological capabilities;
- **Sluggish Clusters** are rather **closed**, often lack connections to external channels and access to international markets. Many of them show a **low degree of collective efficiency** and **poor innovative capacity**.

3 groups of clusters: their features

Type of Cluster (# total)	Names and # of the clusters	Geographical Dimension (# of clusters)	Organizational Structure (# of clusters)	Collective Efficiency (Average Value)		Innovation Capacity (Average Value)	Openness (Average Value)	Stage of Life Cycle (# of clusters)	Policy (# of clusters)
				EE	JA				
Rising Clusters (13)	1.Guyana (Non-Trad Agr) 2.Grenada (Nutmeg) 5.Guyana (Coc Water) 10.Jamaica (Orn. Fish) 14.Inter-Carib (Rum) 15.Guyana (Fishing) 16Guyana (Birding) 19.Jamaica (Treas B.) 20Grenada (Geo-tour) 21.Suriname (Up S R) 22.Inter-Carib (Animat) 23.Barbados (Multimed) 32Inter-Carib (Mar. serv)	Local 3 Urban 1 National 5 Inter-Car 3 Local/Inter-C 1	Marshallian 8 Hub & Spoke 5 Survival 0	2.38	3.77	2.46	3.46	Emergence 6 Growth 6 Sustainment 1 Decline 0	Spontaneous 2 Pol for Incep 3 Pol for Dev 5 Pol for Inc & Dev 0 Spont. + Pol for Dev 3
Sluggish Clusters (8)	3.T&T (Agro products in Felicity) 4.T&T (Agro products in Jerningham) 7.Guyana (For & Wood) 13.Guyana (Gold Jew) 17.T&T (Tourism in Carapichaima) 18.T&T (Tourism) 25.T&T (Pottery) 26.T&T (Retail)	Local 4 Urban 1 National 3 Inter-Car 0 Local/Inter-C 0	Marshallian 7 Hub & Spoke 0 Survival 1	2.50	2.50	1.75	1.38	Emergence 1 Growth 3 Sustainment 3 Decline 1	Spontaneous 3 Pol for Incep 1 Pol for Dev 3 Pol for Inc & Dev 1 Spont. + Pol for Dev 0
Innovative Clusters (11)	6.T&T (Food sustain.) 8.Guyana (Aquacult.) 9.Belize (Shrimp) 11.T&T (Oil) 12.T&T (Point Lisas I E) 24.T&T (Music, Film, etc) 26.T&T (Mar. Serv.) 27.T&T (Financ. Serv.) 28.T&T (Business Serv) 30.Jamaica (ICT/Bus) 31.Jamaica (Print & Pack)	Local 1 Urban 2 National 8 Inter-Car 0 Local/Inter-C 0	Marshallian 11 Hub & Spoke 0 Survival 0	4.45	3.91	4.27	3.09	Emergence 0 Growth 9 Sustainment 2 Decline 0	Spontaneous 1 Pol for Incep 0 Pol for Dev 5 Pol for Inc & Dev 2 Spont. + Pol for Dev 3



Policy design should consider differences among clusters

- In ***Rising Clusters*** policies should focus on:
 - fostering innovation, which is a weak area for this kind of clusters;
 - helping the transition of emerging clusters to a growth phase;
 - supporting the consolidation of leading actors;
- In ***Innovative Clusters*** policies should be:
 - very selective and sustain excellent and very ambitious projects;
 - competition for funding should be very tough and the support to winning projects should be generous;
- In ***Sluggish Clusters*** priorities should be:
 - strengthening trust and local joint action;
 - enhancing openness for accessing resources such as knowledge and technologies;
 - building up innovative capabilities.

Summing up the main findings

- ① Cluster activity is very intense in the region;
- ② The **Caribbean clusters are very diverse** on several key dimensions, as clearly shown with the identification of the three groups – *Rising*, *Innovative* and *Sluggish* Clusters;
- ③ **Supporting policies should therefore be differentiated** to address weaknesses and reinforce strengths;
- ④ In Caribbean clusters, **there are already a variety of supporting interventions**, some of which do represent good practice examples.

Are clusters relevant for the future development in the Caribbean? YES, for 5 reasons

- ① In clusters, **new promising industries** are flourishing thanks to a combination of private entrepreneurial spirits and good public policies. This represents **a signal that diversification, entrepreneurship and innovation are possible in the Caribbean region** when the private and the public sector can work well together;
- ② In these dynamic clusters, **new skilled jobs** could be created helping to address brain drain;
- ③ One of the biggest constraints to growth in the Caribbean region is the small size of the countries and the lack of economies of scale. Thanks to **external economies and joint actions**, clusters do address such limitations;
- ④ Clusters, through their **external connections** (i.e. multinationals, GVC) access knowledge and acquire capabilities needed for being competitive in the international markets;
- ⑤ Existing dynamic clusters do represent very good examples of what can be achieved at the collective level. The challenge ahead is **extending this approach within the region, maintaining an open eye for key external connections**.

Thank you

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PROJECTS IN EXECUTION: 91

PROJECTS IN PIPELINE: 14

RESPONDING TO 10 REGIONAL CHALLENGES:

By Numbers:

- ✓ 13 National Private Sector Development Strategies
- ✓ 22 PSD Institutions Strengthened
- ✓ 13 Multi-Donor Action Plans under Implementation / Projects Developed
- ✓ 22 Public-Private Dialogue Events
- ✓ 43 Cluster Competitiveness Improvement Plans and innovative Business Plans developed

Trade Facilitation/Export Diversification
Investment Promotion
Access to Finance
Logistics and Connectivity
Public-Private Dialogue

Environment/Conservation
Gender (Women/Youth)
Regional Integration
Small/Medium Enterprises
Business Climate Enhancement

29 PROJECTS HAVE REGIONAL SCOPE

15 COUNTRIES REPRESENTED



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The main findings in a table

Clusters	Geographical Dimension	Cluster Organization	Collective efficiency		Innovation Capacity	Openness	Stage of the Life Cycle	Cluster Policy
			EE	JA				
NATURAL RESOURCE BASED								
Agriculture								
• Guyana (Non-traditional agriculture)	N	H&S	M	M/H	M	O	G	I
• Grenada (Nutmeg)	N	M	L/M	M	L/M	S-O	G	S
• T&T (Agro products in Felicity)	L	M	M	M/H	L/M	C	G	I/D
• T&T (Agro products in Jemingham)	L	M	M	L/M	L/M	C	G	I
Agro-processing								
• Guyana (Coconut Water)	L & I-C	H&S	M	H	L/M	O	G	D
• T&T (Food Sustainability)	N	M	H	H	M	C	G	D
Forestry								
• Guyana (Forestry and wood products)	N	M	L/M	L	M	O	G	D
Aquaculture								
• Guyana (Aquaculture)	N	M	M	M/H	M/H	C/O	G	I/D
• Belize (Shrimp)	N	M	H	M/H	M	S-O	G	D
• Jamaica (Ornamental Fish)	U	H&S	M	M/H	M	S-O	E	S/D
Energy								
• T&T (Oil and gas prod. and services)	N	M	H	H	H	O	S	S/D
• T&T (Point Lisas Industrial Estate)	L	M	H	M/H	M/H	O	G	I/D
MANUFACTURING								
• Guyana (Gold Jewelry)	N	M	M	L	L/M	C	S	S
• Various countries (Rum)	I-C	M	L/M	H	M	O	S	D
SERVICES								
Tourism								
• Guyana (Fishing in North Rupunini)	L	M	L	H	L	S-O	G	I
• Guyana (Birding)	N	M	M	M	M	O	E	I
• T&T (Tourism in Carapichaima)	L	M	L/M	L	L/M	C/O	E	D
• T&T (Tourism)	N	M	M	L/M	L	S-O	S	D
• Jamaica (Treasure beach)	L	M	L/M	M/H	L	S-O	E	S/D
• Grenada (Geo-tourism)	N	M	L	M	M	O	G	D
• Suriname (Upper Suriname River Area)	L	M	M	M	L/M	S-O	E	S/D
Creative Industries								
• Various countries (Animation industry)	I-C	M	L/M	M	L/G	C/O	E	D
• Barbados (Multimedia)	N	H&S	M	M/H	M/G	O	E	S
• T&T (Music, film, Carnaval etc.)	N	M	H	M	H	O	G	D
• T&T (Pottery)	L	S	L	M	L	C	D	S
Other Services								
• T&T (Maritime services)	N	M	M	H	H	S-O	G	D
• T&T (Financial services)	U	M	H	M/H	H	O	S	D
• T&T (Business services)	U	M	H	L/M	H	S-O	G	S
• T&T (Retail)	U	M	M	M/H	L	C	S	S
• Jamaica (ICT/business services)	N	M	H	M/H	M/H	S-O	G	S/D
• Jamaica (Printing and Packaging)	N	M	M	M	M/H	S-O	G	S/D
• Various countries (Maritime services)	I-C	H&S	M	M	M	O	G	D

How to measure the 6 cluster dimensions

Dimension	Measure	Synthetic indicator
Cluster structure		
i) Sectoral specialization	Qualitative	
ii) Geographical dimension	Qualitative	
iii) Organization	Qualitative	
Collective efficiency	Low, Low/Medium, Medium, Medium/High, High	Average Value
iv) External economies		
v) Joint Action		
Innovation Capacity	Low, Low/Medium, Medium, Medium/High, High	Average Value
vi) Knowledge base		
vii) Intra-cluster knowledge		
viii) Extra-cluster knowledge		
ix) Innovation System		
Openness		
Export orientation	Absent, Low, Growing, Medium, High	Closed, Closed-Opening, Semi-Open, Open
Multinationals	Yes, No	
Global Value Chains	Yes, No	
Stage of Life Cycle		
Size of clusters	# of actors involved	Emergence, Growth, Sustainment, Decline
System's characteristics	Degree of joint action (see CE)	
Existence of open networks and channels for accessing external knowledge	See Openness	