

## Technical Module – Clusters (applicable to Lot 1a and Lot 1b)

Reflecting back on the Concept Note preparation stage of the SME Competitive Grant Scheme (SCGS); the INSPIRED TEAM has concluded that full SCGS applications which contain a stronger Cluster orientation will have an enhanced potential of being awarded a SCGS Grant. With this in mind, the INSPIRED Team has prepared the following Cluster related tutorial intended to assist and guide applicants preparing full SCGS applications.

Ten subject area headings related to Clusters have been identified by the INSPIRED Team as important subject areas for study and reflection by submitters of SCGS Concept Notes who are, in turn, invited to submit full SCGS applications. There is a brief commentary following each heading, intended to stimulate discussion. In addition, there are two reference articles attached, which are referenced within topic areas. These documents are intended to be read and studied completely by SCGS applicants:

“Clusters and the New Economics of Competition”, Michael Porter, 1998<sup>1</sup>

The Concept of Clusters and Cluster Policies - Europe INNOVA / PRO INNO - and Their Role for Competitiveness and Innovation: Main Statistical Results and Lessons Learned.” Europe paper N° 9, 2008<sup>2</sup>

### A. Clusters and the SCGS

Participants of the Bangladesh INSPIRED TEAM workshop held December and the subsequent Help Desk established in January will recall the ‘spotlight’ on Section 1.2 (**Objectives of the Programme and Priority Issues**) of the SCGS Guidelines and in particular the following statement:

“The **specific objective** is to support **clusters** within the priority sectors that have high growth potential”.

Those of you who participated in the preparation of Concept Notes will recall that the SCGS Guidelines, in respect of Lot 1, stipulated:

“Support to cluster and value chain development projects that clearly seek the increase in SME competitiveness in priority sectors agreed between the EC and the GoB and in two stages of the cluster/value chain life cycle: (a) Early Growth and (b) Intensive growth and consolidation.”

Section 1.3 of the Guidelines also stresses “**support to cluster and value chain development**” in respect of Lot 1 awards.

Within Section 1.1 of the SCGS Guidelines Clusters are defined as follows:

“A cluster is a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities. Because of the shared proximity – both in terms of geography and of activities - cluster constituents enjoy the economic benefits of several types of positive location-specific externalities. These externalities include access to specialised human resources and suppliers, knowledge spill-

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<sup>1</sup> <http://hbr.org/1998/11/clusters-and-the-new-economics-of-competition>

<sup>2</sup> [http://ec.europa.eu/enterprise/policies/innovation/files/clusters-working-document-sec-2008-2635\\_en.pdf](http://ec.europa.eu/enterprise/policies/innovation/files/clusters-working-document-sec-2008-2635_en.pdf)

overs, pressure for higher performance in head-to-head competition and learning from the close interaction with specialised customers and suppliers.”

**Note: Although there are numerous definitions of Clusters, several of which we will explore in this tutorial; for preparers of full SCGS applications, the definition above from the Guidelines should be the only version considered.**

The rationale for putting a focus on Clusters through the SCGS scheme is:

“Cluster development is seen as a way of addressing the problems faced by the SME sector in Bangladesh and rapidly increasing cluster competitiveness. Cluster development is also defined as a priority area in the 2005 national SME policy of Bangladesh. No comprehensive cluster mapping has been undertaken in Bangladesh, although some work has been undertaken on a limited number of sectors.

The competitive advantages of clusters can be seen in three broad areas:

- Scale economies and efficiency of local enterprises are increased, due to:
  - Shared use/purchase of equipment, facilities, human resources, specialization in complementary production stages, better access to investments, information, technology and support institutions, better access to staff and the labour market (especially for professional/qualified staff), better access to suppliers, easier and faster co-ordination of linked enterprises, and promoting improvement of the management of the business cycle and processes.
- Innovative abilities of enterprises are increased, accelerating the level of growth of their efficiency, due to:
  - The inclusion of specialised buyers into the cluster, the inclusion of knowledge agents, faster and constant exchange of information on new technologies, constituent parts, machinery, markets, services etc., joint work of suppliers and buyers, increasing the level of buyer satisfaction;
- The creation of new enterprises is stimulated, which additionally increases innovation and efficiency and enhances the scope of the cluster, due to:
  - Lower admission barriers, availability of funds, skills, knowledge, investments, favourable disposition of financial institutions and investors, and the possibility to constantly follow business opportunities.”

For those engaged in the preparation of SCGS applications, the Guidelines go on to state:

“There are no cluster associations in Bangladesh, only national trade bodies and local chambers of commerce which offer membership to companies in a cluster and may have cluster working groups. However, individual companies in a cluster may not always be members of the same trade body, as there can be more than one trade body representing a sector or sub-sector. Most national trade bodies are located in Dhaka, whereas many of the clusters operate in towns and cities outside of Dhaka, with minimal regional representation. Many of these business intermediary organisations are small and poorly funded, thus restricting their effectiveness to promote cluster development and coherence.”

The SCGS Guidelines define, as one of the eligibility criteria for a SCGS grant applicant under Lot 1a to comprise a minimum of 20 Cluster enterprises (Associates) that have existed, as a Cluster, for up to 5 years. In respect of Lot 1b, this criterion is extended to require a minimum of 50 Cluster enterprises (Associates) that have existed as a Cluster for more than 5 years. Further, all applicants who seek a grant via Lot 1 must be engaged one of the priority sectors as noted in Section 1.2 of the Guidelines: **agro-processing, natural fibres, leather, plastics, light engineering, electronics, furniture, textiles/crafts.**

Finally Section 2.1.3 identifies a lengthy listing of “Eligible actions for which an application maybe made”. The significant issue here is that in both the “*early growth*” and “*intensive growth and consolidation*” stages there are a very heavy emphasis on either cluster development and/or actions to be carried out by clusters. Somehow you must be able to demonstrate this in your proposal.

### **B. Clusters within the Context of Bangladesh**

As stated in the Guidelines, “There are no cluster associations in Bangladesh”. Nor has there been any “comprehensive cluster mapping”. However, since the Guidelines clearly have Clusters at the forefront of the entire SCGS; how should applicants proceed in preparing full SCGS applications as related to Clusters?

During the SCGS Concept Note preparation period, to ensure applicants met the qualifications as stated within the Guidelines; the Bangladesh INSPIRED Team suggested a very linear or horizontal perspective to ensure SCGS applicants met the Cluster requirements as stated within the SCGS Guidelines. Applicants were encouraged to be prepared to produce documentation evidencing that the required number of cluster enterprises (Associates) had the appropriate historical connection. However, as Concept Notes are ‘fleshed out’ into full SCGS Lot 1 applications, applicants are encouraged to utilise the SCGS to facilitate the evolvement of sector Clusters more in line with the generally accepted global definition. This is not to suggest that applicants who are invited to submit full SCGS applications should vary from “The elements assessed on the basis of the concept note”. The Guidelines specifically prohibit any amendments/changes to the issues upon which the Concept Note was evaluated. However, most if not all applicants, subsequent to further ‘homework’ on their specific ‘Clusters’ should seek out opportunities to enhance the impact actions could have on the development of their ‘Cluster’ within the framework of ‘short listed’ Concept Notes.

### **C. Clusters – A Global Perspective**

As noted earlier, the Guidelines define a cluster as “a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities”. This definition is taken almost verbatim from the writings of Michael Porter, a Harvard scholar considered to be the ‘father’ of the modern Cluster theory.

However, in an insightful article titled “**Clusters and the New Economics of Competition**” published some years ago in the Harvard Business Review (attached), Porter provides a more comprehensive explanation of clusters which should be ‘food for thought’ for anyone preparing a full SCGS application. In this article, the author makes the case that a cluster is not simply a group of enterprises within a limited geographic area engaged in a similar enterprise; but also may include ‘players’ up and down the value chain which interact closely to achieve improved skills, technologies or common inputs. Non-commercial institutions and organizations such as governmental agencies, universities, think tanks, trade associations, and vocational training providers can also be key cluster members. Whilst ‘clusters’, in Bangladesh, may not yet recognise this as a fact it does take place without any ‘formal’ acknowledgement. For example companies in the ‘cluster’ all have suppliers; in many cases the suppliers will be common in that they supply the same items and/or articles to more than one company in the cluster.

As Porter points out, “*A cluster, then, is an alternative way of organizing the value chain*”.

Within the USA, Silicon Valley in Central California, where service suppliers, hardware and software producers, venture capitalists and think tanks all ‘feed...as well as feed off’ one another in the shadow of Apple, Google, Hewlett Packard and the other globally known giants within the technology sector are considered to be the quintessential Cluster. Yet another classic example is Hollywood, California.

Here all the 'players' were huddled together within a small geographic area and through common needs developed into the major 'cinematic' centre.

However, more appropriate as a relevant cluster example for many of the "priority sectors" in Bangladesh targeted by the SCGS is the example Porter points to in Northern California. The California Wine Cluster includes 680 commercial wineries. But, as noted within the "**Anatomy of the California Wine Cluster**" inserted within the "Clusters and the New Economics of Competition" document; there is a long list of key business factors which contribute to the success of this sector, including thousands of grape growers and "*a host of local institutions*".

The Italian Leather Fashion Cluster which Porter points to is another example which has relevancy to Cluster development within Bangladesh and not just for the leather sector.

### **D. Clusters – Competition and Cooperation**

Porter makes the case that although members within a cluster are each 'battling' for clients; such competition leads to a stronger cluster and to increased vertical cooperation. As noted earlier, "*a cluster is an alternative way of organizing the value chain.*" SCGS applicants and consultants assisting applicants in preparation of full SCGS applications are encouraged to review the sector value chain and business feasibility studies published on the Bangladesh INSPIRED website with a focus on enhancing cluster development in terms of healthy competition and better cooperation, all of which will lead to greater success and sustainability within the "priority" sectors. Throughout this article, Porter points to numerous examples where even direct competitors within a cluster can benefit and achieve greater productivity, efficiencies and competitive advantages over other global competitors by sharing in such key areas as technology, group purchasing of inputs, shared transport and even sales.

### **E. Clusters and Productivity**

Improved productivity is typically a result of competition within a cluster; especially when there is good cooperation up and down the value chain. The sector value chain and business feasibility reports posted on the Bangladesh INSPIRED website provide numerous recommendations which if implemented will result in more productive and sustainable clusters. As Concept Notes were developed during December and January, many applicants reportedly intended to put a focus on training, a logical and important cluster activity. If training was an activity mentioned within a successful Concept Note; full SCGS applications will be well received if there is training involving the entire cluster when developing the Logical Framework and in turn the narrative description and action plan.

Porter also makes note of several other aspects which are important when considering healthy competition and constructive cooperation within a cluster:

- Suppliers of inputs
- Access to specialized information
- Activities which complement various members of a cluster
- Access to Institutions and Public Goods
- Better Motivation and Measurement

*"A Cluster allows each member to benefit as if it had greater scale or as if it had joined with others without sacrificing its flexibility."*

*Michael Porter, 1998*

## F. Clusters and Innovation

As evidenced by the very public battles between Google and Microsoft or smart phone giants, Apple and Samsung; nothing leads to innovation like competition within a sector. And for those 'players' who fail to keep moving forward with marketable innovations such as we have seen in recent years with Research in Motion – RIM (Blackberry); the results can be devastating. However, as again with RIM as an example, stiff competition can provide a well needed 'wakeup call' to a firm rolling along on past successes; as we see with RIM currently making a valiant effort to 'get back in the game'.

The auto industry within the USA has suffered due to lack of innovation at numerous points over the past decades while other global auto makers galloped along to successes. However, in recent years, after being humbled in the marketplace by consumers showing preference to Japanese and Korean auto makers; the "big three" (GM, Ford and Chrysler) have by necessity made a huge turnaround in innovation; the auto cluster around Detroit including suppliers, designer, educational institutions; as well as manufacturers have worked cooperatively to bring the industry back on track.

Once again, I would encourage anyone working on a full SCGS application to look at the sector value chain and business feasibility studies posted on the INSPIRED website for innovative ideas which might be incorporated into the expansion of Concept Notes into full SCGS applications.

Business operations within Bangladesh may not always have ready access to low cost inputs, dependable energy and efficient transport. Therefore, constructive and creative innovative thinking as to the advantages which do exist within Bangladeshi cluster can result in more profitable and sustainable 'priority' sectors.

*"Companies within clusters usually have a better window on the market than isolated competitors."*  
Michael Porter, 1998

## G. Clusters and New Business Formation

Many activities incorporated in Concept Notes, and reviewed by the Bangladesh INSPIRED team, indicated new business formation as an 'output'. As full SCGS applications are developed, much additional thought must go into exactly how these phenomena will actually be manifested.

Porter makes the case that "*clusters are conducive to new business formation for a variety of reasons*":

- Perceived gaps in products or services
- Barriers to entry are lower
- Assets, skills, inputs, staff readily available
- Local bankers and investors are familiar with the cluster
- Local relationships exist

SCGS applicants need to reflect not only as to what is wrong within a sector resulting in constraints for cluster participants, but reflect upon what is working for the entire cluster which can be enhanced within the scope of the Concept Note and in turn the full SCGS application.

*"Insights and skills from various fields merge, sparking new business."*  
Michael Porter, 1998

## H. Cluster Development (Birth, Evolution and Decline)

Among the 'priority' sectors identified by the SCGS Guidelines, the Light Engineering sector in Dhaka is a classic example which has grown out of local demand. The SCGS Guidelines reference a study which found 24 mature and potential Clusters within this sector (Section 1.1). Other 'priority' sectors may have evolved due to other factors such as the low cost of labour, export opportunities, economic inputs or logistical advantage. Porter provides numerous examples of catalysts which stimulated the growth of clusters. However, regardless of the why or how of cluster development; *"once a cluster begins to form, a self-reinforcing cycle promotes its growth"*.

*"A growing cluster signals opportunity, and its success stories help attract the best talent."*  
Michael Porter, 1998

Porter points to a number of successful clusters which seemingly evolved via chance, all of which may be 'food for thought' in drafting the SCGS applications. His contention that an emerging cluster signals opportunity and attracts the best talent is worth reflection within the 'priority sectors' in Bangladesh. Human resources are one of the key elements of sustainable growth within the "priority sectors". Growing successful clusters will attract 'the best'.

The city of Manaus, Brazil sits 1000 miles up the Amazon River from the Atlantic Ocean. The city and surrounding area are only accessible by air or river traffic. No roads lead to or from Manaus to the rest of Brazil or the outside world. When natural rubber production, which was the economic engine of the area around Manaus declined; the Government of Brazil established the Manaus area as a free trade zone. As a result, a cluster made up of international giants such as Phillips, Microsoft and IBM set up operations. In turn, now the best and brightest of the graduating university classes in San Paulo and Rio flock to Manaus. This quote from Porter is worth repeating

*"A growing cluster signals opportunity, and its success stories help attract the best talent."*  
Michael Porter, 1998

Decline of a cluster, as Porter explains, is typically related to a resistance to change or "Rigidity". This has been especially true in recent years with the fast changing pace brought on by the internet, rapid transportation and a very competitive consumer oriented, global economy. "Rigidity" is reflected with the decline of many business operations due to the 'brick and mortar syndrome'. The rapid pace of change in the global economy often requires periodic change to major facilities. Many business managers have difficulty letting go of old inefficient facilities and put their operations into decline as a result. Porter's excellent example of the "Groupthink" problem in the USA auto industry of the 1970's is another problem which can lead to the decline of a Cluster. An unhealthy corporate culture is another potential 'disease' which can lead to decline. This factor is especially true for young ventures which start off with poor policies that, over time, bring down what could have been a successful and sustainable business enterprise.

## I. Clusters and the European Union (EU)

As the SCGS is funded by the EU and is being implemented via EU rules and regulations, applicants preparing SCGS applications are well advised to consider Clusters from an EU perspective. In 2008, the EU staff published **"The Concept of Clusters and Cluster Policies - Europe INNOVA / PRO INNO and Their Role for Competitiveness and Innovation: Main Statistical Results and Lessons Learned"** (attached). Although there are many Cluster related documents which have been published by the EU; this particular publication is insightful for numerous reasons and is worth careful study. Of particular importance for SCGS applicants will be to look within this document for relevancy to the Bangladeshi experience.

Numerous statements of fact jump out of this report which may be applicable to the expansion of SCGS Concept Notes into full SCGS applications, such as:

- “Clusters facilitate both intense competition and close cooperation, sometimes described as **“co-opetition”**. Geographical proximity is believed to facilitate the flows of tacit knowledge and the unplanned interactions that are critical parts of the innovation process. This flow relies upon the willingness of firms to inform others about their knowledge, which depends upon the trust established between actors.”
- “Clusters are characterised by a certain dynamic social and organisational element, the so-called **“institutional fix” or social glue** that holds the different interlinked innovation actors – such as universities, businesses and public authorities – together and facilitates intense interaction and cooperation amongst them. Over time, clusters tend to develop a set of idiosyncratic norms, institutions, personal networks, and trust.”
- “The – often unplanned – **intense formal and informal contacts and exchange of business information, know-how, and technical expertise** within clusters can lead to technological spill-overs and the development of new and often unexpected ideas and new creative designs, products, services and business concepts that improve the innovation performance of businesses.”
- **“Clusters are not stable over time but change continuously”**.
- **“The continuous success of clusters depends on their capability to change and to adapt.”**
- “The most important **“prerequisites” for the emergence of clusters** are qualified labour and strong networks between actors”.

The SCGS Guidelines require an applicant to be an organization but in contrast goes on to state - *“There are no cluster associations in Bangladesh”*. **Chapter 4 “Cluster Initiatives and Cluster Organisations in Europe”** of the attached EU report should be studied prior to developing SCGS applications. With over 500 cluster organisations existing throughout the EU this chapter provides a valuable insight how these organisations:

- Facilitated the further growth of a cluster
- Improved the competitiveness of their cluster
- Determine the success of a cluster initiative

### **J. Clusters and Government**

As Porter explains, when government policies suspend competition or establish restrictive regulatory procedures, decline of a cluster will occur. The sector reports posted on the Bangladesh INSPIRED website list numerous issues related to government actions, or inactions, having a negative impact on the economic success of the “priority” sectors. Changing government policies is an important role for Clusters which could be an output identified within SCGS applications.

Porter draws special attention to typical ‘good and bad’ governmental actions observed within developing countries in the section titled “Clusters, Geography and Economic Development”. Here he describes the typical errors made by governments in developing nations (as well as developed nations) which inhibit business and cluster development; while also pointing out the correct moves and policies which governments should employ to stimulate economic activity.

Porter also addresses the role and responsibilities of governments, in respect of clusters, highlighting the 'ills' of "Industrial Policy". Of particular relevancy to Bangladesh are actions and policies by Government which upgrade clusters, do not favour certain clusters over others and do not attempt to create new clusters.

*"Businesses, government and institutions all have a stake – and a role to play"*

*"Clusters reveal the mutual dependence and collective responsibility of all these entities for creating conditions for **productive competition**".*

*Michael Porter, 1998*

Within the attached document "**The Concept of Clusters and Cluster Policies and The Role for Competitiveness and Innovation: Main Statistical Results and Lessons Learned**" there is considerable discussion relative to governmental policies "*strengthening existing clusters or facilitating the emergence of new ones*". Within the EU, numerous examples are cited providing well documented proof as to how governmental policies must be tailored to fit particular types of Clusters; rather than a "one size fits all" philosophy. "*For policy makers, the cluster approach responds to the need to follow a modern, multi-actor and cooperative approach ("triple helix") which favours innovation and helps enterprises to better face global competition.*"

The actual positive impact of governmental policies related to Clusters remains an open question, as stated within this EU report "*It is difficult to measure the impact of cluster policies and programmes as most of their effects are only indirect and affected by many other factors. This makes it very difficult to establish clear causal links between cluster policies and programmes and their potential impact.*"

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As noted earlier in this tutorial, the 2005 National SME Policy of Bangladesh<sup>3</sup> ([SME Policy Strategies - 2005](#)) defines Cluster development as a priority area. While current governmental policy related to Clusters may not be a direct factor to be incorporated within a full SCGS application; this is a subject area to be considered within action plans and activities for applicants who are awarded grants.

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<sup>3</sup> <http://www.smef.org.bd/>

## Grant Aid Tutorial Questions

Consultant:

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**Technical Module – Cluster Development- Actions to facilitate development and meet SCGS objectives (applicable to Lot 1a and Lot 1b).**

Bearing in mind the importance the SCGS guidelines places on 'cluster' development and the current environment in Bangladesh in respect of the status of 'clusters' can you explain, on not more than two pages, what factors you should incorporate in your proposal to indicate that action(s) proposed will facilitate the development of your specific 'cluster' into a structure/format/environment displaying the characteristics and dynamics corresponding to the more formally recognised definition (Porter's definition) of 'clusters'?

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