Innovation Benchmarks, Assessments, and Learning

Dr Sandra M E Wint

Growing the Caribbean Innovation Economy

US National Academy of Sciences

15 September 2016

National Academy of Sciences

2101 Constitution Avenue, NW

Washington, DC

Current STI Situation

- Uneven development of STI frameworks

- Uneven quality standards, regulations and management

- Uneven emphasis on promoting and enabling opportunities for innovation

- Token interest expressed by public and private sectors

- Paucity of concrete examples showcasing the importance of scientific application as an underpinning for sustained economic development

- Intellectual property protection systems - uneven across the region

Current STI Situation

- Lacks regional effort to create a coordinated and cohesive mechanism that develops and retains institutional learning and knowledge as part of regional capacity building

- Commitment to address the impacts of Climate Change and other environmental treaties in development policies and programmes - uneven (externally driven in many instances through multilateral agency projects)

- Creative energies of informal and indigenous sectors largely untapped

- Overdependence on tourism

Inhibiting Factors

- Implementation gaps - public policy, public R&D priorities, investment climate, commercial potential or social benefit

- Lack of integration of key institutions - critical to the practical operation of a functional knowledge economy – long history of operating as silos (government, academia, R&D, finance, insurance, etc)

- Lack of awareness among institutions of scientific insights that have the potential for new commercial opportunities

- Sustained financial support

- Weak knowledge networks

- Brain drain

- Risk averse mindset is common

- Cultural nuances

Grand Anse Plan of Action

- *Grand Anse Declaration* recommended:

  The establishment of a regional implementation structure and effective mechanism for Research, Science, Technology, Innovation, Entrepreneurship and Development, under the auspices of the CARICOM Secretariat and the guidance and coordination of the CARICOM Science, Technology and Innovation Committee (CSTIC).

Current goals

- Ascertain state of STI in each member state
- Create or update national STI policies
- Increase public funding of R&D to 0.5% of GDP
- Increase regional information flow
- Embed science across the education system
- Develop appropriate science curriculum – pre & primary school levels
- Improve financing and funding mechanisms

Grand Anse Plan of Action

Implementation Strategy

- Each goal has an assigned "Champion" and proposed deadlines for implementation.

  We should have strategic plans, activities and monitoring schedules attached to each goal, which will enable us to assess success:

  - identify hindrances to implementation

  - ability to respond to unforeseen issues

  - evidence of knowledge transfer and institutional learning.

Innovation Benchmarks

- What are we as a region trying to achieve?

    - Goals articulated in regional and national policies and programmes should converge and reinforce each other.

    We need to benchmark innovation using criteria that are reflective of our regional realities in order to fully embrace the breadth of our abilities to generate ideas that have commercial and social benefits.

Innovation Benchmarks

Ideas –many of our ideas are likely to have their genesis outside of the formal system (policy bodies, R&D institutions, businesses)

Creativity abounds in:

➤Culture – music, carnival, dance, religion, culinary heritage, fashion, indigenous art, sport

➤Traditional medicine – use of herbs and natural ingredients

➤Money management – partner groups, bartering

➤Cottage craft – sewing, baking, preserving, repairing, recycling

Some limitations of current indicators

- Measuring innovation in the informal sector-

    We need to capture the creativity, know-how and learning, and assign values that are compatible with and capable of being incorporated into models that can contribute to policy and programme development.

Some limitations of current indicators

- Economies that are mainly agrarian:

    We need to identify and measure innovation across the range of production, reaping, storage, marketing and value-added measures employed across the sector.

- Traditional/local knowledge that form the platform for developing novel foods, medicines and materials:

    We need to identify and capture ideas that have potential for innovative products or processes that reside in communities across the Region.

An Effective Innovation System

- Clear understanding of which metrics are crucial to regional development planning processes

- Should be compatible with region specific issues, criteria, idiosyncrasies, cultural sensitivities

- Understands and accommodates national priorities

- Allows full participation by all member countries

- Enables opportunities to be identified and exploited effectively by maintaining the necessary policies, institutions, competencies, financial resources and access to markets

- Provides an efficient and effective system for incorporating external knowledge, generating local knowledge, encouraging institutional learning and knowledge retention

- Should give a more clear-cut picture of how capable the informal sector is to evolve and cope with changing conditions – environmental, economic and social.

Bespoke Indicator Framework

- Define success and failure against region specific criteria that may not yet have been defined in measurable terms

- Develop new indicators framed by our realities – cultural, economic and social norms to fill the gaps in the existing evaluation system

Fit for purpose

Bespoke Indicator Framework

- Develop measurements, both quantitative and qualitative, to give clear and unambiguous insight into the Region's characteristics.

- Develop mechanisms that enable this insight to

  - underpin national and regional policymaking,

  - define R&D priorities,

  - enhance entrepreneurial opportunities,

  - social wellbeing and

  - meet imperatives of the Sustainable Development Goals.

Completing the Innovation Circle - Learning

- Develop public and private sector partnerships that
  - enable information sharing – ideas, data, analyses, results, success and failure stories;
  - access to resources- R&D facilities and personnel;
  - Fora for problem solving

- Create avenues for the Diaspora to add their knowledge to the system

- Develop means of managing knowledge – identifying, codifying, use

Completing the Innovation Circle - Learning

- Enable all stakeholders to have access to information and develop channels to incorporate information residing in various bodies into a regional knowledge base.

- Devise a reflective monitoring mechanism:

  to identify best practice, mistakes, successes,

  to inform ongoing adjustment of the system,

  to enable its responsiveness and evolution to cope with changing needs and demands.

CaribSTIP

A community for Caribbean Science, Technology and Innovation Policy

CaribSTIP was created as a platform to encourage and energise discourse among all who are concerned with developing national and regional capability frameworks for the development of Caribbean Science, Technology and Innovation. CaribSTIP provides a space to share information, discuss ideas and generate creative and plausible recommendations that can be put forward to the relevant bodies as a contribution to the debates on how best to develop as a progressive region able to provide an enviable standard of living for our citizens while providing the best stewardship for this part of the planet that we call home.

Visit the country pages for brief overviews and a compendium of regional S&T bodies including their speciality areas.

Join us for lively and insightful discussion in our forum at **talk.CaribSTIP**!

https://caribstip.com/

A regional online platform to:

-Bring together science, technology and innovation related resources across the region

-Be a source of information on regional and national developments, programmes and projects, reports, capabilities …

-Provide a platform for ongoing interaction among regional players – debate issues, discussion/work groups

-Highlight success stories