Informal Innovation System Indicators
– a Note based on selected SE-Asian Case Studies

Roundtable Meeting for the Preparation of Science, Technology, Innovation and Global Assessment Programme (STIGAP)

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Innovation is being considered increasingly as an essential component for the competitiveness of organisations, business or otherwise.

Innovation – can be seen as the ability to combine, recombine and commercialize knowledge – is not limited to developed countries or to “high tech” industries.

Hence it is considered essential, not only for developed but also developing countries, to foster innovation, especially at the firm level, since firms (not countries) are the ones that have to compete internationally (Patarapong 2007).
Social Responsibility (CSR, CR etc)/Sustainable Decisions (3-Bottomline) practices are not just what firms/orgn’s do with profits made but how the profits are made.

Innovation:
Formal and Informal in products or processes (changing Value chain), Social Innovations, etc.
Context of Malaysia

- National Innovation Plan
  - New economic plan bases growth on “innovation” of two types
    - S&T Driven Innovation – where knowledge from S&T institutions will be commercialised
    - Market led innovation – where “markets” are identified by entrepreneurs – who will helped in acquiring needed S&T/Knowledge

- Constant discussion of drop in ‘innovation ratings’
  - But Indicators are still focused on R&D and related variables

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Anecdotal evidence indicates quite a few firms that have emerged that are considered “innovative” and going international eg. Air Asia, Nirvana, Digi, F&B Sector firms, etc.

For this presentation 3 Cases chosen - a hotel, a jeweller and a health services provider

Main aim is to gain an understanding if there could be “other indicators of innovation”?
Overview of the Case Firms

**F-Hotel** — A 117 room resort in the island of Langkawi, Malaysia. Owner buys a budget and transforms it

**John Hardy** — a high-end jeweler firm — operations in Bali Indonesia — markets worldwide

**Pahang Bio-Science** — Malaysia — an new firm in the health sector in Malaysia — starting with stem cell technology — intends to include local knowledge
Roles of different players in F Hotel - Malaysia

Engaging in and with Local community – Maintain marshes in community, Engaging with local schools tc

Links with business associations

Use of indigenous/family knowledge in use of plants/herbs in operations of hotel

Founder teaches in and draws knowledge from local universities

Eco Conscious customers

Information Dissemination to Society through schools and associations

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Benefits of informal innovation in F–Hotel - Malaysia

Better pay for human resources – lower attrition, more involvement in sustaining green effort

“Green” or “Eco friendly” efforts

Use of indigenous/family knowledge in use of plants/herbs in operations of hotel

Better Positioning of the Hotel brand
Interesting options in cuisine

Green customers – Pay higher Price

Information Dissemination to Society through schools and associations

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Roles of different players JH

- Engaging in and with Local community Assn – Participating in local rituals, Bamboo Planting, Farming, etc
- Local talent base – Balinese (Artisans)
- Green Infrastructures - Local Materials, Local architecture, low energy usage
- US based NGO for knowledge related to energy conservation in marketing activities
- Green Consumers
- Market Own Outlet and Dept Stores
- Information Dissemination to Society + Set up Green School

John Hardy Jewellery - produced and marketed with minimum damage environment and disruption of social ways

Roles of different players in Pahang Bio Science

- Malaysian Universities/Scientist Community
- Local Community – Farmers, etc Suppliers and Consumers of knowledge
- Supplier Industry/Rabbit Farms etc
- Pahang Bio Science/Projectin Charge Mediator, Funds Raiser, etc
- State Govt - Funding, Legitimacy, Mediate with Other Agencies, Provide Resources
- Final Market
- Market/health Resorts, etc
- Information Dissemination to Society

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Some aspects that can be considered as first level indicators of innovation in these cases – one of them that is underlying all the three cases is the “entrepreneurial intent” (also mentioned in Oslo manual) - in this case it’s the seeking economic profit along with social and environmental benefits.

This intent seems to be critical and can be seen as an aspect of indicating innovation.

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There are a few “Input” Indicators of the informal innovation systems

- actors with of Indigenous Knowledge (Farmers, tribal/aborigines etc.,) / utilisation of indigenous knowledge (or also known as wisdom of elders in Asia).

Extent to which the organisations are embedded in the community,

their linkages to community organisations and linkages to non-government organisations as sources of informal knowledge, regarding markets or regarding inputs to the operations, are evident in the three cases.
Another indicator is the use of information and communication technologies (ICT) - given the location of the case organisations be it rural or far away from markets

– in the case of the John Hardy, ICTs have been used to bridge the distance between markets and the organisation and also among members of the organisation.

- the Pahang Bio Science organisation is also considering ICT to inter-connect the different actors in the community and in the cluster it plans to develop – these include farmers, aborigines in the forests surrounding the organisations activities etc.

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It is also possible to glean out some output / resultant benefits as indicators in these informal innovation systems.

Examples from the cases of JH and F-Hotel – higher levels of (inclusive) employment.

Local artisans who have highly specialised skills, managerial talent, and lower level skilled human resources also in their peripheral activities.
It is also possible to glean out some output indicators in these informal innovation systems.

Another human resource related indicators is higher levels of pay and higher levels of retaining human resources.

There is also greater commitment among the human resources in the first two cases.

There is also a possibility for branding to target high end markets and seek higher profits/profit margins.
In the three cases – the key persons be it the CEO / owner also mention the importance of diffusion of the Innovation or the benefits of innovation to broader society / community.

This can be seen as another indicator – of an informal or formal innovation system.
It can be seen that both external and internal factors have been important for innovation. External factors can be formal institutions or informal actors.

\[\text{- interaction between the org’n and the informal actors has been critical for the novel ideas to become innovation and hence the need for the indicators of informal innovations – particularly in developing economies with not so strong S&T infrastructure. Also in the three cases finance was never discussed an important issue compared to sources of knowledge and access to sources of knowledge.}\]

For government policy analysts the results seem to suggest the need to move away from direct support programs centred around finance or grant to other support programs.

The informal innovation system seems to be an important aspect to help in developing innovation with economic, social and environmental benefits. For managers the cases indicate that...

These organisations need to be sensitive to signals from the market – and being linked to users and communities or community organisations can help to sensitise the organisations.

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Thank you and await your feedback

Thanks to all at UNESCO