

Knowledge to Innovation : the role of informal knowledge

Sujata Gamage, LIRNEasia
December 10, 2009



Formalization of knowledge, innovation and knowledge to innovation

Innovation is part of the human condition. At work or play we constantly try to make things easier for ourselves.

It used to be that we create knowledge as we tried to do things better, unknowingly, so to speak

Then came universities, research institutes, extension services and a host of other supporting organizations and activities



Did we go too far?

- An innovation system is made up of institutions that create, store and transfer the knowledge, skills and artifacts which define new technologies.” (Metcalfe, 1995)



Innovation System – Actors

(NSF, Sri Lanka)

- ❑ Government/ Central & Provincial – Policy framework
- ❑ Universities - Research
- ❑ R&D institutes –Research & extension
- ❑ S&T institutes – Supporting services
- ❑ Other govt. departments - Supporting services
- ❑ IPR – Technology transfer
- ❑ NGOs – Participatory approach
- ❑ Private sector - Marketing
- ❑ Banks – Venture capital
- ❑ Donor agencies - Funding
- ❑ Legal firms/Lawyers – legal aspects
- ❑ Society - Beneficiary



Corrections in progress

❑ INNOVATION SURVEYS:

The most important links and collaborations for businesses are with other enterprises, including customers, suppliers and even competitors (HSRC, 2009).

❑ KIBS LITERATURE

Soft' sources such as suppliers and customers and skilled personnel or consultants recruited are critical for innovation in knowledge intensive business services (KIBS) (from Tether, 2004; Freel, 2006 in the KIBS literature)

❑ WORLD BANK:

Research is an important source of knowledge for innovation, but it serves principally as a complement to other knowledge and other activities. Many countries have an urgent need to develop the other elements of the innovation system, particularly more extensive patterns of interaction and the attitudes and practices that support interaction. Once research is better integrated into this wider set of activities, it will become clearer where research capacity is limiting and where it needs strengthening [WB, 2006]

Mode -1 v. Mode -2

- Knowledge produced outside of formal knowledge institutions in the context of work (or mode-2 knowledge) will be more important
 - Gibbons, et al. 1994
 - Novotny, Scott and Gibbons, 2006



ICT enabled connectivity makes mode-2
all the more real



Solid Waste Sector as Case Study



Survey of Solid Waste Managers in 325 LAs in Sri Lanka

□ SOURCES OF KNOWLEDGE

Who did you contact in the last 12 months to get the information/knowledge you needed

□ SUCCESS

What percent of your waste is separated and processed prior to dumping



Results

	ALL
Connected/'Successful'	18%
Connected/Not 'Successful'	40%
Not connected /Not 'Successful'	42%
	106



Sources of Knowledge

(19 `successful LAs

	Number	%
Gov+	2	11%
Peer+	10	53%
Other	7	37%

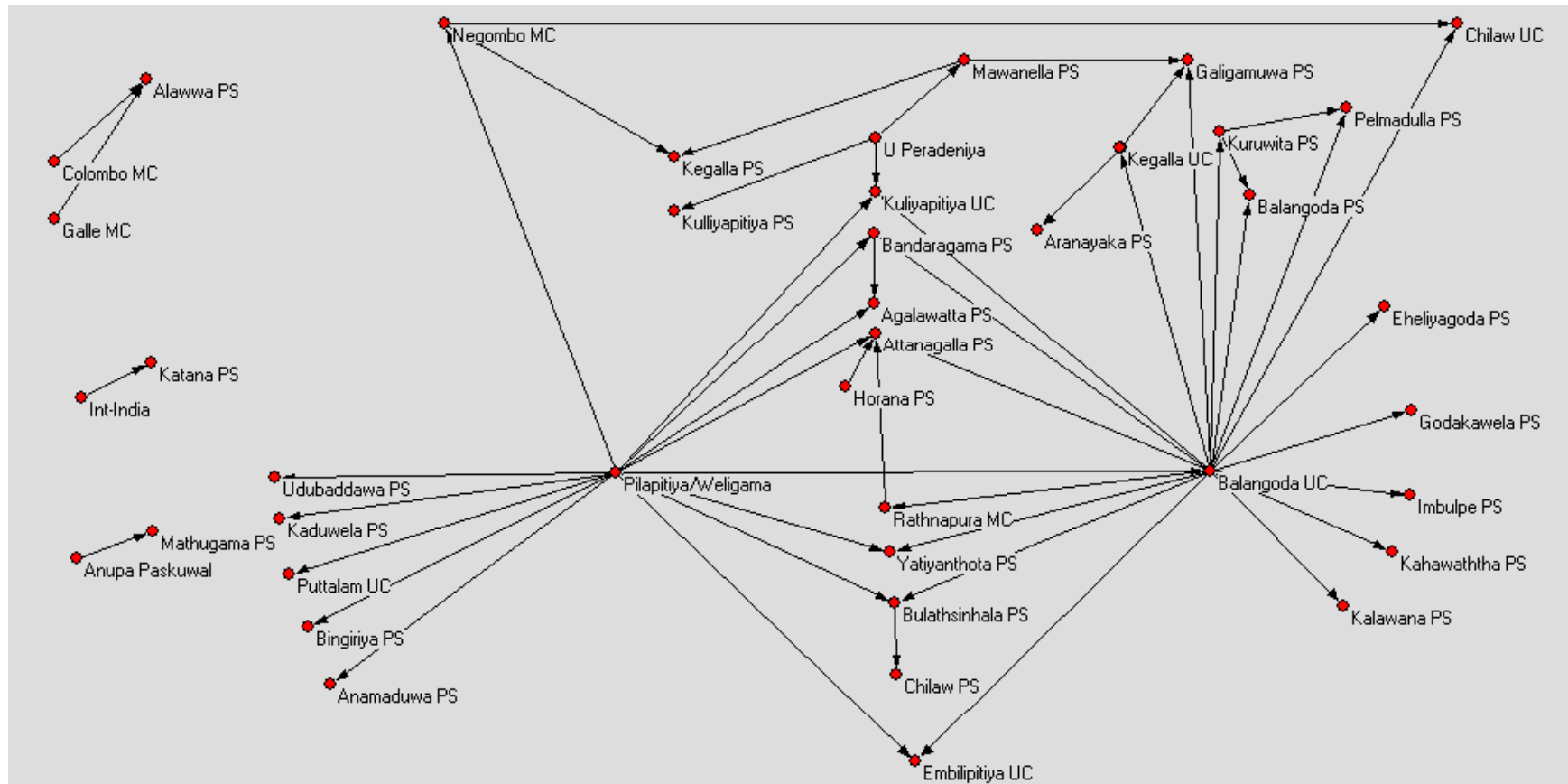
- PEER: Anupa Pasqual, Balangoda UC, Bandaragama PS, Bulathsinhala PS, Kuruwita PS, Mawanella PS, Negombo MC, Rathnapura MC, Weligama UC
- OTHER: Unnamed Expert-India; Pilapitiya-Expert Sri Lanka (4), Basnayake- Pofessor, U Perdeniya (on volunteer basis or as consultants)
-

Peers are an important source of knowledge



Connectedness of SW Managers in Sri Lanka

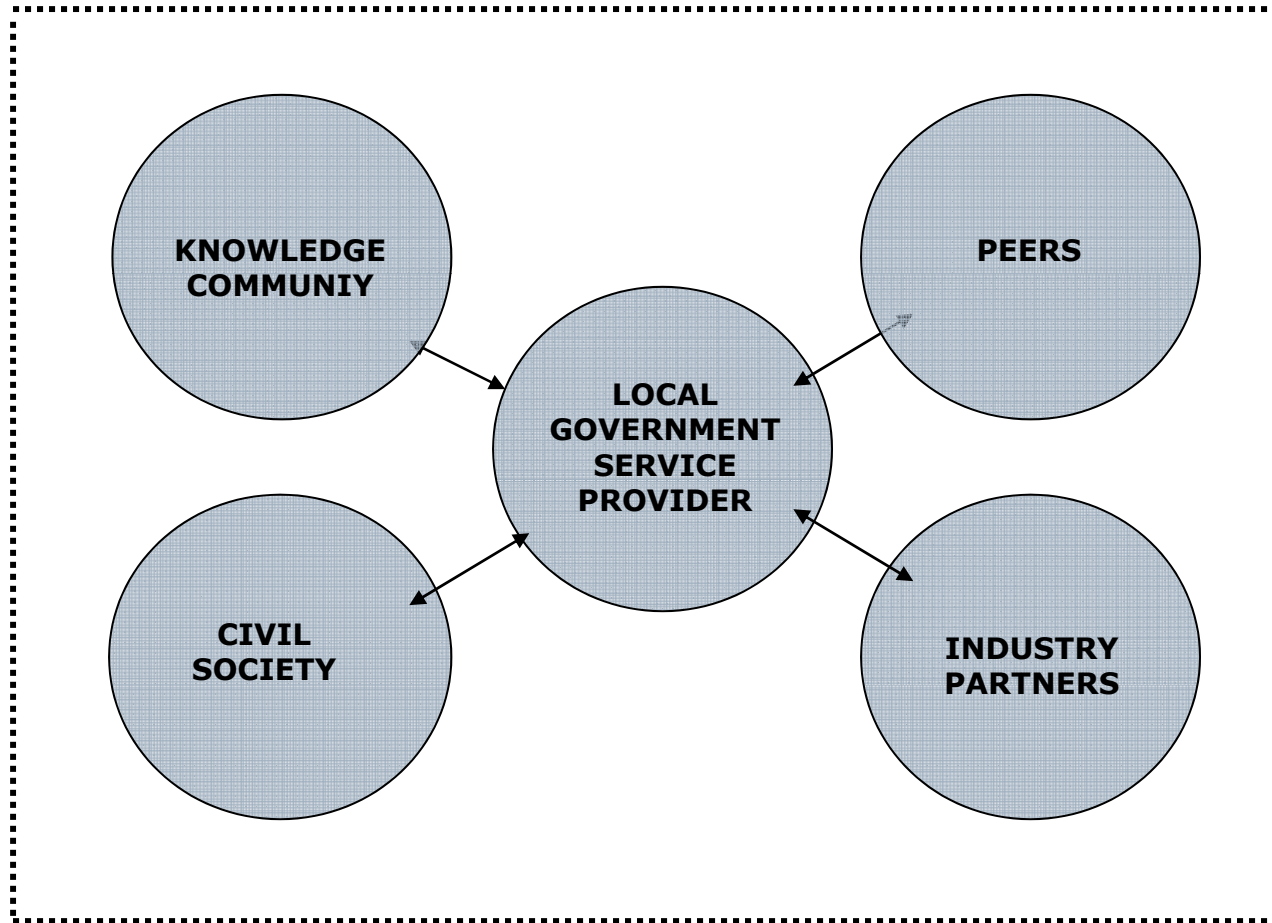
(Sabaragamuwa (29/29; Wayamba; 30/32; Western, 9/9)



Challenges for Policymakers

	SBRG	WYMB	WEST	ALL
Connected/'Successful'	17%	21%	17%	19
Connected/Not 'Successful'	41%	30%	NA	37
Not connected /Not 'Successful'	41%	41%	NA	50
	29	29	48	106

Viewing the Solid waste as a System with attention to mode-2



Dashed frame represents the enabling environment made up media and national regulatory framework



Testing Linkages (Jan 2008 – Dec 2009)

- Between each Local Authority and
 - Peer community
 - Knowledge community
 - Civil society
 - Industry



Results



Standards and Certificates



Training of trainers Curriculum writing



Training of trainers



40 personnel from 10 LAs at Balangoda UC Training Center



Visit by Balangoda UC to Vavuniya UC and IDP Camps



Conclusion

- Peer-2-peer linkages are productive and sustainable K2I processes
- Government agencies, universities and other formal knowledge actors should nurture these with creativity and humility



Future work

- Cost of linkages in solid waste sector
- Applications to other sectors



Cost?

Cost of linking v. Other imperatives

LINKING: USD 40,000 per province per year?

- Peer-2-Peer training
- Recognition of 'most improved' and 'worst' can be effective
- Internships/Mphil

OTHER IMPERATIVES: Equipment, Sanitary landfill?



Thank you

