

**Impact of Monitoring & Evaluation for
Developing of Sustainable Telecenter
Networks**

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ABSTRACT

E3 Telecenter Network Evaluation helped improving sustainability of 60 Nenasala Telecenter Network in Uva Province of Sri Lanka. E-3 evaluates Telecenter sustainability, monitoring four key areas in quantitative measures to output detailed views to evaluate their performance, issues, and the improvements made resulting from capacity building. The M & E process initiated Telecenter, zonal, district and provincial network actions to address issues with Regional Impact Team technical support, deployment of content & services, capacity

building and training. The model provided indicators on the effectiveness of strategies, recommendations for program and policy changes to improve sustainability of the Uva Nenasala Network.

The M & E carried out during 9 months to monitor network participation, availability of resources and services, Telecenter quality and served quantity. Periodic monitoring helped assessing the changes in performance to evaluate the direction of Telecenters towards the goal of sustainability.

The indicators for the monitoring developed studying sustained Telecenters as a learning model. Performance was ranked as a sustainability index to evaluate each Telecenter, zone, district, province and cluster groups.

M & E findings led RIT actions to improve their capacity with knowledge, content, leadership

skills, community involvement, networking, promotion, advocacy and technical support to improve performance for sustainability.

M & E process resulted improvement of Uva Nenasala network sustainability from 28% in June 2008 to 45% by December 2008 including continuing performance improvements by 78% of Nenasala. The feedback from community, increased Nenasala and network activities, improved Nenasala usage and revenue, local, regional, national and international advancements made by Uva Nenasala operators became evidences of the impact of M & E process and demonstrate the effectiveness of the E3 approach for developing Telecenter Network sustainability.

The conclusions made are that M & E is a key activity in developing sustainability of Telecenter Networks, require continues needs assessment, Involving evaluated community and parallel capacity building. Network

participation, available services, local content,
quality and quantity of people served impact

Telecenter sustainability and the E3 M & E
model can be effectively used to develop
sustainability of Telecenter Networks.

ICT training, local content for E Learning,
internet access, EVS and value added services
are found as key services to sustain Nenasala.

INTRODUCTION

This paper presents E3 M & E process and its impact in developing Telecenter network sustainability, is based on the E3 research project that help sustain 60 Nenasala Telecenter Network in Uva province, Sri Lanka.

Telecenter is a place for community to access information, communication, technologies and services for the advancement and socio-economic well being of the society. "Nenasala" is the generic local brand name of 577 Telecenter Network of Sri Lanka, owned by the community, setup by Information and Communication Technology Agency (ICTA), under e Sri Lanka project.

Sustainability of a Telecenter is "Capacity to generate enough revenue from ICT enabled services to ensure continues existence in the community, fulfilling the socio-economic well being of the society" (Niranjan M, Telecenter

Sustainability Network, 2008).

Nenasala are quite common in infrastructure but unique by location, served community, leadership and skills The Uva Nenasala Network is formed to share information, knowledge, resources , collaboration and for advocacy.

E3 framework

E3 Telecenter Sustainability Network enables e learning, e business and e leadership through multi-stake holder partnerships, based on a development plan, assessed needs and uses local language content and culture as the foundation.

See Figure 1.0

Project E3

Project E3 was initiated by Shilpa Sayura Foundation (<http://www.shilpasayura.org>) and efusion pvt ltd, in June 2008, on an assignment given by ICTA, to help sustain Uva Nenasala

Network, which had faced serious sustainability issues.

Material and Methods

The M & E process designed with needs assessment, technical support, content and services, training and capacity building involving expert assistance, with periodic reporting.

The research referenced a report on Telecenter Evaluation in Indonesia, The African Telecenter Cookbook, Making the Connection: Scaling Telecenters for development, e fusion proposal for RIT assignment, public demographics, government documents, telecentre.org discussions and related web sites.

The M & E designed like a spin, to improve the model using research findings, involved Nenasala operators to create local ownership, facilitated them for feed back to endorse

network development activities.

Sustainability Index

Sustainability Index is a Telecenter ranking system designed using a learning model of performing Nenasala, defined with set of indicators for to evaluate Telecenter, zone, district and province network sustainability. Achieving sustainable Index of 6 considered as a proof of sustainability as shown below. See figure 2.0

- 1- Telecenter is operational
- 2- Has communications capacity
- 3- Has self managing capacity
- 4- Has Technology skills needed
- 5- Community development capacity
- 6- Financially breaking even
- 7- Zonal network Leadership
- 8- Regional network leadership
- 9- National network leadership
- 10-Global network leadership

The ranking system applied to evaluate Telecenter on set of indicators monitored monthly to determine the direction of Telecenters and Network towards sustainability.

The Uva province situated south east of Sri Lanka, challenged with transportation, communications, and highest poverty recording lowest education results. The 60 Nenasala are distributed across region with 33 in Badulla and 27 in Monaragala districts. See figure 3.0

After establishing guidelines and priorities with ICTA, 52 Nenasala were visited and data collected, organized a series of 5 zonal workshops for needs assessment, M & E awareness and communications training. The workshops helped finding solutions to problems mapping available resources, and establishing a network for collaboration. A survey was carried out using questioner for Nenasala operators and users and interviewed

Nenasala Owners, Nenasala operators, users, concerned community leaders and the public officials. An online forum was established for network communications, feedback and support. Nenasala were studied to find out their strengths, weaknesses, issues, skills, operations, services and network potential.

The needs assessment carried out, described Telecenters models, key issues, needs advocacy, content & services and training see. See figure 4.0

The E3 M & E model captured individual Telecenter, zonal and regional needs from the needs assessment, uses SWOT analysis to develop an adoptable Telecenter model on local needs. The M & E and capacity building was a parallel process.

The regional think tank involved Nenasala in developing following key network strategies.

1. Networking with business and government

See Figure 6.0

2. Professionalize Telecenter Operators

3. Implement local language E learning

4. Portal for Telecenters

5. Developing Local language content

6. Developing Network Projects

7. Reaching Youth and Women

8. Aligning with National objectives

E 3 Telecenter Evaluation

Telecenters were visited or met at least once a month, collected performance data, zonal and regional workshops assisted assessing the network capacity. M & E found that following key areas have significant effect on Nenasala performance.

Network participation

Help increase knowledge and access to resources, leadership. Measured on number

of workshops participated, meetings attended, visits made, calls received, forum posts like characteristics.

Availability of resources and services

Internet access, functioning hardware, E

Learning content, mobile reloads,

photocopying, DTP, photography, EVS

increase Nenasala capacity for services.

Bandarawela, Koslanda, Glenore and

Haldummulla Nenasala involved in BPO to

make adequate revenue. Communication, DTP

like services has helped Monaragoala,

Sevanagala, Kariwila, Detagamuwa, Bibile

performance. ICT Literacy found as the key

revenue service in Nenasala.

Quality

Quality of Telecenter assessed using

characteristics of internet speed, hardware

quality, technology, and community, leadership

and management skills. Badulla, Haldummulla,

Bibile, Monaragala, Kataragama, Sewanagala,

Mapakadawewa, Talakumbura Telecenters are best examples for quality and leadership.

Quantity of people served

Quantity of people served effect Nenasala sustainability both in social and financial **aspect**. The Telecenters situated at population centers had an automatic advantage for quantity. In comparison rural Nenasala like Kandiyapitawewa, Etampitiya and Talakumbura increased served quantity through service innovation.

Each Characteristic measured or accessed in M & E as Quantity by number, availability as yes or no and by grading 1 to 10. see table 1.0

Data Analysis

E3 evolution matrix detailed views on Telecenter performance allowing comparative studies to contrast performance of Telecenters, zones, districts in the province.

As assessed in 2008 June 60 Nenasala Tele centers were distributed among 12 private owners, 9 NGOs, 29 Temples, and 10 CBOs, had operated average 27 months, 20% had a photocopier, 50% did not have a fax machine, 60% did not had a scanner, 24 centers had 2PCs and only 45% had Internet connectivity.

The content & services density was found too low in the region. Deployment of Shilpa

Sayura E Learning, Azeem Prem Jee Tamil content improved Nenasala usage by youth.

Interviews found that Agriculture content was appreciated by adult community, but reluctant to use computers. Other areas haven't shown significant improvement due to lack of capital investment by Nenasala.

Nenasala ranked on sustainability index categorized Nenasala as excellent (6), fair (4) and poor (below 4). Ranking helped Nenasala motivation to improve towards higher ranking.

The poorly performing Nenasala supported with special activities; higher ranked Nenasala was guided to achieve higher goals. The Cluster, District and Provincial Ranks obtained by averaging. The changes in standard deviation displayed continues improvement.

Although the rank was low in some Nenasala like Talakumbura and Mahiyanganya performed well in social purpose.

All higher ranked Nenasala had EVS, internet, value added services and experience operating more than 3 years.

Majority of lower ranked Nenasala like Balagolla, Siyambanduwa, Wekumbura did not had internet access or EVS.

One common attribute of 11 lowest ranked Nenasala like Divurumpola, Olagangala, Buddhapriya, Kabillegama lacked network participation, management and leadership skills, lack of content and services, yet 40% of them had internet, under utilized and lacked a capable operator.

Due to poor record keeping data collection faced difficulties. Nenasala need improvement in financial and usage records. Considering ownership clusters 25% of the temples, 33% of the NGOs and 9% of the private owned

Presence of a capable operator, Network participation, management leadership, useful content and services were some common characteristics of fair and well performing Nenasala. Privately held Nenasala had the advantage in capital investment for value added services, EVS, technical capacity and internet connectivity. Their location in populated area definitely helped financial performance.

Wellawaya, Glenore and Welimada which were financially sustainable did not take part in network activities, capacity building and training. The M & E didn't indicate their performance improvement during the period.

Hingurukaduwa , Kandiyapitawewa, Monaragala, Bibile, Haldummulla, Bandarawela, Badulla which had been sustainable improved with M & E capacity building, gaining national recognition, winning e-

SDI grants and improving on revenue and services.

One of the best methods of evaluating the impact of the M & E was live feedback of the Nenasala operators, they are found in <http://www.youtube.com/shilpasayura>.

Based on findings of M & E it could be said that EVS, internet access, content and value added services, network participation, and management leadership impact the sustainability of the Telecenters.

42 Nenasala using Shilpa Sayura had average 62% Network participation, 26% EVS, 65% internet, Sustainability index of 5.0.

Among 17 Nenasala who had not implemented Shilpa Sayura had average 1.3% Network participation, 20% EVS, 59% internet, Sustainability index of 3.7. This group consist only one well performing and 2 fair forming Nenasala.

In the 31 Nenasala with average sustainability index of 5.8 and had 55% network participation, 81% used Shilpa Sayura, EVS was 45% and had internet connectivity for 92%.

These findings indicate that network participation, Shilpa Sayura, Internet connectivity and EVS have significant impact on Nenasala Sustainability. It also show that the ownership model does not directly impact performance but Nenasala with higher sustainability index had better leadership skills compared to the ones with poor performance. 81% of sustainable Nenasala providing Shipa Sayura display that e Learning service has an impact on performance.

Constraints

One constraint of the RIT assignment was that RIT role limited evaluation, advising and training and lacked resources to assist Nenasala, restricted implementing network services such as e business and developing of

relevant content for network and community needs. Therefore initiatives need to be made to secure funding and resources forming E 3 project.

Training issues

It was found that Nenasala require a capable operator to absorb training and technical skills.

Handling different skill levels posed a challenged but solved by clustering training into advanced, intermediate and beginner segments.

7 month M & E results indicate mean sustainability index improvement of Uva Telecenter Network from 2.8 in June 2008 to 4.6 by December 2008 displaying an increase of 100% and 78% of Nenasala improving Continuing basis is an indications of the impact of the M & E process.

The E3 M & E helped evaluation of Nenasala, identifying Nenasala issues, directing network actions to solve problems and evaluation of the

effect of training, capacity building, content and services deployment, technical support and advocacy that impact each Telecenter, Telecenter Operators and the network.

Conclusions

M & E is a key activity to improve the sustainability of Telecenters, in which continues needs assessment and involvement of the evaluated community help improve M & E process and the network performance.

Network participation, availability of internet access, local language educational content, and value added services, management leadership and quantity of people served are key characteristics of a sustainable Telecenter Network.

E-3 M & E model that asses Telecenter as well as zonal, regional and cluster networks to initiate network service, support, content and

training actions can be effectively used to improve Telecenter networks sustainability.

Acknowledgments

References

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Figure 1.0

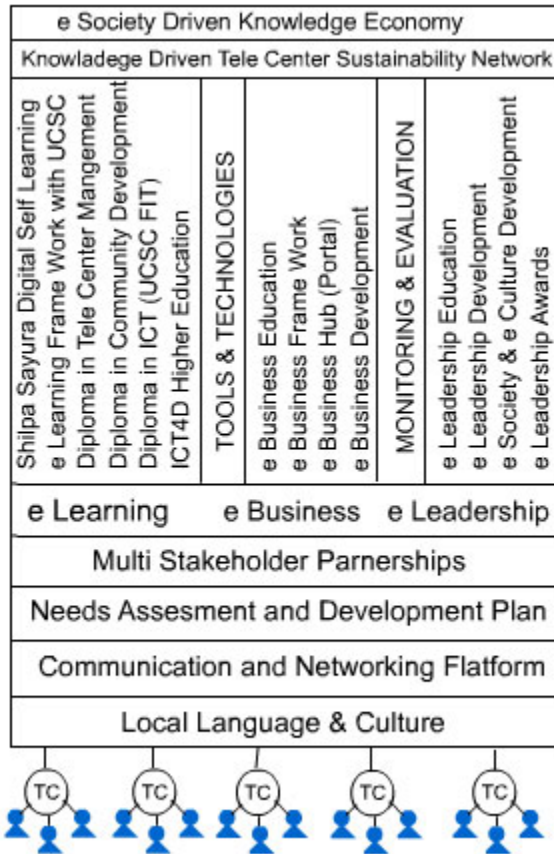


figure 2.0

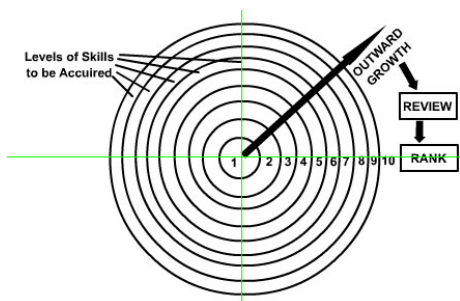


figure 3.0

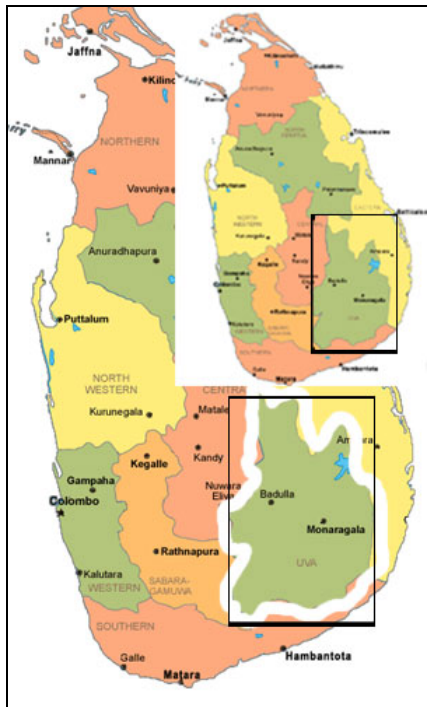


Figure 4.0

The E3 M & E Process

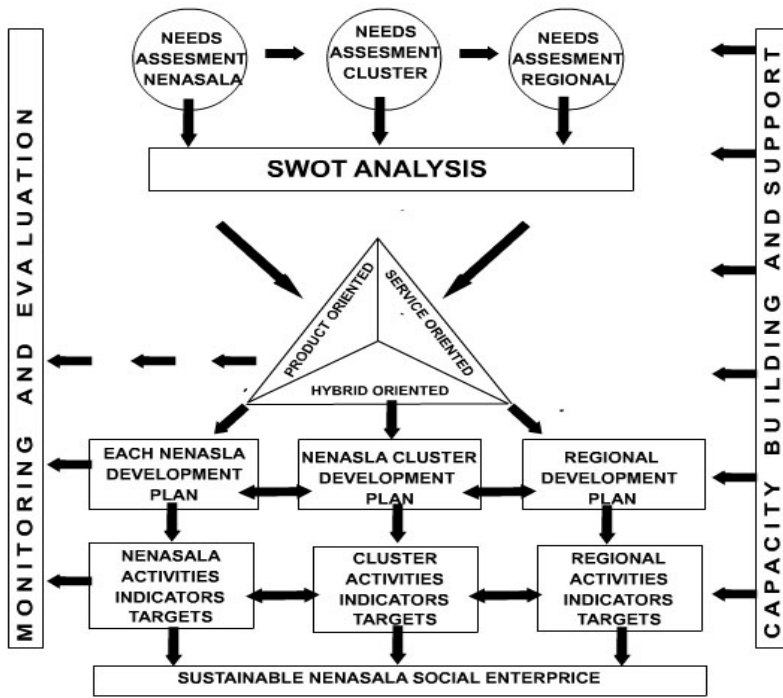


figure 5.0.

Table 1.0

Participation

Meetings	Quantity
Visits	Quantity
Calls	Quantity
Workshops	Quantity
Visted	Quantity
National	Quantity
Global	Quantity

Availability

Hardware	Yes/No
Internet	Yes/No
Shilpa Sayura	Yes/No
Agriculture Content	Yes/No
Tamil Content	Yes/No
Seminars	Yes/No
Mobile Reload	Yes/No
DTP	Yes/No
Photocopy	Yes/No
BPO	Yes/No
EVS	Yes/No

Quality

Technology Skills Grade 1-10

Management Skills Grade 1-10

Community

Activities Grade 1-10

Leadership Skills Grade 1-10

Service Quality Grade 1-10

Quantity

ICT Revenue Quantity

Non ICT revenue Quantity

Total revenue Quantity

No People Served Quantity

Cost Quantity

Table 2.0

Content and Services at Nenasala June 2008

C & S	Badulla		Monaragala		Uva		Density
	No	%	No	%	Total No	%	
Internet	13	41.9	16	51.6	29.0	48.3	Low
Mobile Services	5	16.1	7	22.6	12.0	20.0	Very Low
DTP	12	38.7	10	32.3	22.0	36.7	Low

Photo Copying	5	16.1	7	22.6	12.0	20.0	Very Low
Printing	0	0.0	4	12.9	4.0	6.7	Very Low
Photography	0	0.0	4	12.9	4.0	6.7	Very Low
BPO	3	9.7	0	0.0	3.0	5.0	Very Low
EVS	7	22.6	8	25.8	15.0	25.0	Low

Content & Services at Nenasala December

2008

C & S	Badulla		Monaragala		Uva		Density
	No	%	No	%	Total No	%	
Internet	19.5	63	20.5	71	40	67	Low
Shilpa Sayura	28	90	2	79	51	85	High
Community content	23	70	20	70	43	70	High
Azeem Prem Jee	29	94	24	83	53	88	High
Mobile Services	5	16.1	7	22.6	12.0	20.0	Very Low
DTP	12	38.7	10	32.3	22.0	36.7	Low
Photo Copying	5	16.1	7	22.6	12.0	20.0	Very Low
Printing	0	0.0	4	12.9	4.0	6.7	Very Low
Photography	0	0.0	4	12.9	4.0	6.7	Very Low
BPO	3	9.7	0	0.0	3.0	5.0	Very Low

EVS	7	22.6	8	25.8	15.0	25.0	Low
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E3 framework

Figure 6.0



Niranjan Meegamma is an award winning innovator in ICT4D, a pioneer in Sri Lanka ICT development, with strong experience in local language technologies, local content, e learning development and grass root Telecenter development and online community building is a Member of ICTA E-Society focus group, Sinhala Unicode Group, Founder of E fusion pvt Id and the designer of Shilpa Sayura Project which won I4D 2007, GKP 2007, Diskobolos 2008 and Stockholm Challenge 2008 Global awards. Niranjan is the Team Leader for Uva Province Regional Impact Team for Nenasala Development assigned by ICTA.

List of Issues

Infrastructure

Lack of internet access

Poor hardware maintenance

The lack of regular maintenance

Lack of technical support

Frequent electrical breakdowns

Lack of assistance to upscale

Policy

Local government can make use of Nenasala to improve their presence in community.

Local and National governments need to create an enabling environment for Nenasala to evolve.

Leadership

Lack of a clear mission and objectives

Lack of governance structure

Lack of Leadership

Lack of community participation

Lack of network collaboration

Lack social actions

Operation

Lack of record keeping

Lack of service innovation

Under paid staff

Lack of marketing to improve visibility

Lack of professional advice

Lack of partnerships

Lack of investments

Lack of operational strategy

Content and services

Lack of content and services awareness

Lack of locally relevant services

Lack of locally relevant content

Lack of new services

Lack of content for youth and women

Lack of government services

Operators

Lack of knowledge and skills

Lack management skills

Lack community development skills

Lack of technology skills

Lack of communication skills

Lack of English knowledge

Lack of ICT4D knowledge

Lack of TC operation knowledge

Lack of communication skills

Lack of leadership skills

Lack of qualifications

Zonal and Regional

Lack of inter Nenasala corporation

Lack of Networking among operators

Lack of Zonal and regional training facilities

Lack of knowledge and resources sharing

Lack of government and business relationships

Lack of a regional business portal

Non ICT bases services

Marketing local commodities

Agency for man power services

Community library and meeting place

Banking services agency

Insurance agency

Health development

Facilitator for Government services

Social and Business Networking

ICT Based services

Content creation services

Media and News services

Publishing on internet

Operation of a local portal

Teaching school ICT curriculum

Implementing e-learning

Mobile phone repairing

Above services aimed at fulfilling both social and financial needs of Nenasala, hence require Nenasala to establish a governing structure and acquire legal status.

5. Communication, intervention and advocacy with service providers for quality service

delivery.

Participation

Workshops Quantity

Availability

Hardware Yes/No

Internet Yes/No

Shilpa Sayura Yes/No

Mobile Reload Yes/No

DTP Yes/No

BPO Yes/No

EVS Yes/No

Quality

Technology Skills Graded 1-10

Management Skills Graded 1-10

Community

Activities Graded 1-10

Leadership Skills Graded 1-10

Quantity

Total revenue Quantity

Number People

Served

Quantity

Total Cost

Quantity

No	Nenasala	SI	WS	HW	INT	SS	Mob	DTP	PCP	BPO	EVS	EXP	PCs	
	Maduruketiya	4	3	1	1	1	0	0	0	0	1	45	4	
8	Koslanda	5	1	1	1	0	0	0	0	1	1	47	4	
14	Glenanore	5	1	1	1	1	0	1	0	1	1	47	4	
38	Unavatuna	5	2	1	1	1	1	0	0	0	1	45	4	
58	Wellawaya	5	0	1	1	0	0	1	0	0	1	44	4	
6	Heeloya	6	1	1	1	1	1	1	0	0	1	47	4	
3	Bandarawela	7	3	1	1	1	0	1	1	1	1	47	4	
47	Monaragala	7	3	1	1	0	1	0	0	0	1	45	4	
50	Sevanagala	7	0	1	1	0	1	1	0	0	1	44	4	
	Average	5.5	1.6	1	1	0.6	0.4	0.5	0.2	0.3	1	2.2	5.5	45.3

90% of Nenasala are sustainable. Require increasing value added services, network participation and useful content for communities, benefited with EVS program and having four computers, internet access, technical knowledge and 30% are involved in BPO.

Some characteristics of Temple owned

Nenasala

No	Nenasala	SI	WS	HW	INT	SS	EVS	PCs
57	Wedihiti Kanda	0	0	1	0	0	0	2
5	Warakadanda	2	1	1	0	1	0	2
22	Olangangala	2	0	1	0	0	0	3
2	Bhuddhappriya	3	2	1	1	1	0	2
31	Nugathalawa	3	2	1	1	1	0	3
45	Therulla	3	2	1	0	1	0	3
49	Yalkubura	3	0	1	1	1	0	2
7	Giradurukotte	4	4	1	1	1	0	3
12	Hali-Ela	4	4	1	0	1	0	2
15	Andwulpotha	4	4	1	0	1	0	3
24	Abagahawatte	4	2	1	0	1	0	3
29	Kandegedara	4	5	1	0	1	0	2
33	Wekumbura	4	6	1	0	1	0	3
40	Kataragama Dv	4	3	1	1	0	0	2
44	Kandawinna	4	2	1	0	1	0	3
52	Siyabalanduwa	4	5	1	0	1	0	2
4	Thalakumbura	5	6	1	1	1	0	2
18	Keselpotha	5	3	1	1	1	0	3
20	Narangala	5	3	1	1	1	0	3

26	Bogahakumbura	5	4	1	1	1	0	3
27	Gavarammana	5	2	1	1	1	0	3
36	Nagala	5	4	1	1	1	0	2
55	Balaharuwa	5	4	1	1	1	0	4
21	Mapakadawewa	6	5	1	1	1	1	3
37	Diyakobala	6	0	1	0	1	0	2
	Katharagama							
43	Kv	6	1	1	1	1	0	6
9	Haldummulla	7	4	1	1	1	1	2
35	Bibile	7	4	1	1	1	0	2
		4.3	2.9	1.0	0.6	0.9	0.1	2.7

Displays high degree of network participation,
 provide educational content for communities,
 lack value added services, only 60% has
 internet access, 46% has only two computers,
 1 Nenasala involved in BPO. 44% sustainable
 and one center closed.

Some characteristics of CBO owned Nenasala

No	Nenasala	SI	WS	HW	INT	SS	MOB	DTP	BPO	EVS	MM	PCs
11	Perahettiya	4	1	1	0	1	0	0	0	0	24	3

16	Lunugala	4	4	1	0	1	1	1	0	0	23	3
19	Meegahakiula	4	6	1	0	1	0	1	0	0	23	3
25	Maspana	4	2	1	0	1	0	0	0	0	24	3
28	Kebellegama	4	2	1	0	1	0	0	0	0	24	3
30	Welimada	3	1	1	1	0	0	1	0	0	47	4
51	Mahagama	6	3	1	0	1	1	1	0	0	44	4
53	Ethimale	4	2	1	0	1	0	1	0	0	36	2
56	Punsisigama	5	4	1	1	1	0	1	0	0	19	4
59	Sooriya Ara	4	2	1	1	1	0	0	0	0	16	3
		4.2	2.7	1	0.30	0.9	0.2	0.6	0	0	28	3.2

Display average network participation; provide educational content for communities, lack value added services, only 30% has internet access, one has only two computers, not involved in BPO, 20% sustainable.

Some characteristics of NGO owned Nenasala

No	Nenasala	SI	WS	HW	INT	SS	Mob	DTP	BPO	EVS	MM	PCs
1	Badulla Town	7	4	1	1	1	0	0	0	1	39	2
10	Etampitiya	7	6	1	1	1	1	1	0	0	23	3
13	Oodoowara	5	2	1	1	1	0	0	0	0	38	2

23	Sarania	3	3	1	0	1	0	0	0	0	22	3
32	Badalkumbura	3	2	1	0	1	0	0	0	0	21	3
34	Higurukaduwa	7	6	1	1	1	0	0	0	0	25	3
39	Pelwatte	5	5	1	1	1	0	1	0	1	26	3
42	Kariwila	6	1	1	1	1	1	0	0	1	43	4
46	Medagama	2	2	1	0	0	0	0	0	0	21	3
		5.0	3.4	1.0	0.7	0.9	0.2	0.2	0.0	0.3	28.7	2.9

Display good network participation; provide educational content for communities, lack value added services, 70% has internet access, one has only two computers, not involved in BPO. 30% has EVS, 67% sustainable.

Some characteristics with worst performing

Nenasala

No	Nenasala	SI	WS	INT	SS	MOB	PCs
57	Wedihiti Kanda	0 Temple	0	0	0	0	2
5	Warakadanda	2 Temple	1	0	1	0	2
22	Olangangala	2 Temple	0	0	0	0	3
46	Medagama	2 NGO	2	0	0	0	3
2	Bhuddhappriya	3 Temple	2	1	1	0	2
23	Sarania Estate	3 NGO	3	0	1	0	3
30	Welimada	3 Private	1	1	0	0	4
31	Nugathalawa	3 Temple	2	1	1	1	3
32	Badalkumbura	3 NGO	2	0	1	0	3
45	Therulla	3 Temple	2	0	1	0	3
49	Yalkubura	3 Temple	0	1	1	0	2
		2.5	1.4	0.4	0.6	0.1	2.7

No	Nenasala	Model	Location	SI	WS	INT	SS	EVS	PCs
4	Thalakumbura	Temple	Rural	5	6	1	1	0	2
8	Koslanda	Private	Urban	5	1	1	0	1	4
13	Oodoowara	NGO	Urban	5	2	1	1	0	2
14	Glenanore	Private	Rural	5	1	1	1	1	4
17	Mahiyanganaya	Temple	Urban	5	5	1	1	0	2
18	Keselpotha	Temple	Rural	5	3	1	1	0	3
20	Narangala	Temple	Rural	5	3	1	1	0	3
26	Bogahakumbura	Temple	Urban	5	4	1	1	0	3
27	Gavarammana	Temple	Urban	5	2	1	1	0	3
36	Nagala	Temple	Rural	5	4	1	1	0	2
38	Unavatuna	Private	Urban	5	2	1	1	1	4
39	Pelwatte	CBO	Urban	5	5	1	1	1	3
55	Balaharuwa	Temple	Rural	5	4	1	1	0	4
56	Punsisigama	CBO	Rural	5	4	1	1	0	4
58	Wellawaya	Private	City	5	0	1	0	1	4
60	Thanamalvila	CBO	Urban	5	5	1	1	0	4
6	Heeloya	Private	Rural	6	1	1	1	1	4
21	Mapakadawewa	Temple	Rural	6	5	1	1	1	3
37	Diyakobala	Temple	Rural	6	0	0	1	0	2
42	Kariwila	CBO	Urban	6	1	1	1	1	4

43	Katharagama Kv	Temple	Rural	6	1	1	1	0	6
51	Mahagama	CBO	Rural	6	3	0	1	0	4
1	Badulla Town	NGO	City	7	4	1	1	1	2
3	Bandarawela	Private	City	7	3	1	1	1	4
9	Haldummulla	Temple	Urban	7	4	1	1	1	2
10	Etampitiya	NGO	Rural	7	6	1	1	0	3
34	Higurukaduwa	NGO	Rural	7	6	1	1	0	3
35	Bibile	Temple	City	7	4	1	1	0	2
47	Monaragala	Private	City	7	3	1	0	1	4
50	Sevanagala	Private	City	7	0	1	0	1	4
54	Kandiyapitawewa	Private	Rural	7	5	0.5	1	1	4
				5.8	3.1	0.9	0.9	0.5	3.3

Niranjan Meegamma is an award winning innovator in ICT4D, a pioneer in Sri Lanka ICT development, with strong experience in local language technologies, local content, e learning development and grass root Telecenter development and online community building is a Member of ICTA E-Society focus group, Sinhala Unicode Group, Founder of E fusion PRIVATE Id and the designer of Shilpa Sayura Project which won I4D 2007, GKP 2007, Diskobolos 2008 and Stockholm Challenge 2008 Global awards. Niranjan is the Team Leader for Uva Province Regional Impact Team for Nenasala Development assigned by ICTA.

Properly managing TC networks requires structuring and planning. Network development yield good results by determining network

objectives, negotiating a shared sense of purpose, developing coordination, leadership and a management that suit local needs and provision of critical resources and tools for knowledge facilitation, capacity building and setting up basic norms and decision making processes for conflict resolution.

Understanding the operating region

Area Demographics, community description and vital statistics of the E3 research area

Badulla and Monaragala Districts Known as Uva – Wellassa, situated between central hills and south east coast, diverse in geography.

Access to the region is mainly by road from via Kandy from North and Ratnapura from West Hambantota by South.

Badulla is the most prominent city and Welimada, Bandarawela, Mahiyanganaya,

Bibile, Monaragala, Wellawaya and Kataragama are the other cities in the region.

Uva – Wellassa is a historical settlement relating to ancient Sri Lanka, the region has produced most powerful Kings, and known for involving battles against invasions and against colonial rule, the most prominent is 1818 Uva – Wellassa uprising.

The economy is based on paddy, tea, vegetable, corn and spices growing agriculture, local tourism and supply of building raw materials. Although cool and misty in western parts, major part of the area is quite dry in weather, although water steams present, no major rivers flows through the region. Rain is the main water source, collected in tanks for agriculture based economy.

Education, Infrastructure, Economic, Transportation, Health etc. powers are governed by Provincial council, District secretary, 25 Pradeshiya sabhas, Divisional

secretaries and Govi janasewa offices responsible for village level development and welfare programs. Services of the central government ministries also served through this structure.

Key leaders in the province are Chief Minister and Ministers of central government. The chief priests of temples, district secretary, divisional secretaries and senior government officers who are involved with development programs. Leaders of village welfare associations, farmers, and youth and women societies are also important section of leaders in the community. There are active youth services organizations well distributed in the region mainly for culture and sports, is an important channel.

Civic participation in the governance mainly limited to electing political leaders and CBO activities, yet lack taking part in regional social actions. Community is concerned with national

socio-economic issues, with strong sense of conservativeness in culture.

Historically economy, infrastructure, health and education have been the major concerns of the community. Statistically highest poverty, lowest educational results, highest unemployment recorded in the area. Majority being farming families, low prices received for produce is a key concern.

The region lack internet facilities, mobile communication is limited. There are many villages without electricity. ICT penetration is highly limited. Although some schools have ICT labs, they lack teachers and ICT education. Many government offices use computer some internet and email. Banking and financing services, private sector business uses ICT.

Among the economic assets of region are agriculture produce and farmlands, raw material industries, lush green forests, Yala

national park, ancient shrines, and local
tourism. active human resource with cultural
bindings is the valuable assets in the
community.

Vital Statistics of the Badulla and Monaragala

Area

Population by district, sex and sex ratio

District	Total	Male	Female	Sex ratio
Badulla	779,983	387,583	392,400	98.8
Monaragala	397,375	202,816	194,559	104.2
Sri Lanka	18,797,257	359,148	438,109	99.2

District	Total	%	Urban		Rural		Estate	
			No	%	No	%	No	%
Badulla	779,983	100	51,653	6.6	567,178	72.7	61,269	20.7
Monaragala	397,375	100	-	-	388,226	97.7	9,149	2.3

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Ethnic Distribution

	Badulla (779,983)		Monaragal a (397,375)		Region (1,177,358)	
	No	%	No	%	No	%
Sinhala	564,752	72.4	375,691	94.5	940,441	79.88
Sri Lanka a Tamil	29,542	3.8	5,754	1.4	35,296	3.0
India Tamil	143,535	18.4	7,493	1.9	151,028	12.83
Sri Lanka a Moor	38,798	5.0	7,800	2.0	46,291	3.93
Burger	583	0.1	124	0.0	707	0.06

Mala y	1,813	0.2	127	0.0	834	0.0 7
Other	960	0.1	386	0.1	1346	0.1 1

Education Statistics

Students By Grade

Grade	1	2	3	4	5
Badulla	15,045	14,906	14,375	15,002	15,783
Monaragala	7,457	7,454	7,153	7,811	8,353
Uva	22,503	22,362	21,531	22,817	24,141
Sri Lanka	330,328	322,053	308,037	319,904	327,259
Uva %	6.81	6.94	6.99	7.13	7.38

11

Grade	6	7	8	9	10	11	(repeat)
Badulla	15,334	15,277	15,416	16,101	13,951	12,471	2,978
Monaragala	8,408	8,978	9,007	8,964	8,161	7,559	2,211
Uva	23,748	24,262	24,431	25,074	22,122	20,041	5,189
Sri Lanka	327,400	326,780	330,464	332,352	304,967	269,962	47,094
Uva %	7.25	7.42	7.39	7.54	7.25	7.42	11.02

A/L

2008

AL 2008 Repeat

Stream	Science	Art	Commerce	Science	Art	Commerce
Badulla	1,076	3,444	1,447	160	725	303

Monaragala	499	1,828	699	127	399	154
Uva	1,575	5,272	2,146	287	1,124	457
Sri Lanka	30,887	72,135	35,586	4,930	13,667	6,187
Uva %	5.10	7.31	6.03	5.82	8.22	7.39

Privena Schools

Level	Mulika	Maha	Viyayathana
Badulla	20	8	3
Monaragala	12	4	2
Uva	32	12	5
Sri Lanka	417	185	51
Uva %	7.67	6.49	9.80

GCE O/L Results

	1997	1998	1999	2000	2001
No.Sat GCE(O/L)					
School	323,267	353,372	346,796	349,464	347,315
% qualifying for					
GCE(A/L)	32.78	37.43	37.7	36.98	41.47
No.Sat GCE(O/L)					
ALL	501,505	509,499	532,448	471,309	456,829
% qualifying for					
GCE(A/L)	23.8	26	27.11	29.34	40.15

GCE A/L Results

No.Sat GCE(A/L) School	111,105	114,628	142,294	157,364	171,544
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No. qualifying to enter

University	60,267	59,796	63,673	80,411	86,656
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% qualifying to enter	54.24	52.17	44.75	51.1	50.52
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No. Applied for GCE(A/L)

ALL	173,253	179,832	195,368	214,189	229,689
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No.Sat GCE(A/L) ..	142,336	147,851	169,679	183,439	198,509
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No. qualifying to enter

university	73,574	73,347	73,542	91,589	98,329
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% qualifying to enter

University	51.69	49.61	43.35	49.93	49.53
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New admissions to

Universities	10,450	10,779	11,309	11,805	11,962
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Admissions as a % of

Eligible	15.49	15.67	16.17	16.08	16.26
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Graduate output

First Degree	6,738	7,834	8,232	9,374
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Postgraduate	1,508	1,685	1,520	2,169
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Poverty

Poverty

	Mean real monthly total expenditure per- capita	Poverty Head Count Index %	Number of poor persons 1000s	Contribution to total poverty
Badulla	4172	23.7	197	7
Monaragala	3340	33.2	150	5.3
Uva	3879	27	346	12.3
Sri Lanka	5436	15.2	2,805	100

Poverty gap

	Poverty gap Index	Mon. Shortfall Av	Contribution to total Short fall
Badulla	5.3	501	7.8
Monaragala	7.8	524	6.2
Uva	6.2	511	14.1
Sri Lanka	3.1	448	100

Poverty head count index

Definition

The poverty head count ratio is the proportion of the national population whose incomes are below the official threshold/s set by the national government.

	1990/91	1995/96	2002	2006/07
Badulla	31	41	37.3	23.7
Monaragala	33.7	56.2	37.2	33.2
Uva	31.9	46.7	37.2	27
Sri Lanka	26.1	28.8	22.7	15.2

Lands	Total Sq		Inland	
	Km	Land	Land	Water
Badulla	2,861	2,827		34
5,639	5,508	131		
Uva	8,500	8,335		165
Sri Lanka	65,610	62,705		2,905
	12.96	13.29		5.68

Badulla District	2,861	
	Land Sq	
DS Division	Km	%
Mahiyanganaya	601	21.01
Ridimaliyadda	431	15.06
Meegahakiula	105	3.67
Kandaketiya	157	5.49
Uva-		
Paranagama	138	4.82
Hali-Ela	165	5.77
Soranatota	79	2.76
Passara	136	4.75
Badulla	51	1.78
Ella	111	3.88
Bandarawela	71	2.48
Welimada	188	6.57
Haputale	72	2.52
Haldummulla	412	14.40
Lunugala	144	5.03

Moneragala

District	5,639	
DS Division	Land Sq	%

	Km	
Bibile	476	8.44
Madulla	708	12.56
Medagama	235	4.17
Badalkumbura	230	4.08
Moneragala	286	5.07
Siyambalanduwa	1,055	18.71
Buttala	711	12.61
Wellawaya	577	10.23
Katharagama	552	9.79
Thanamalvila	633	11.23
Sevanagala	176	3.12

Definition

The poverty head count ratio is the proportion of the national population whose incomes are below the official threshold/s set by the national government.

Sri Lanka	15.2
Western	8.2
Central	22.3
Southern	13.8

Eastern	10.8
North-western	14.6
North-central	14.2
Uva	27
Sabaragamuwa	24.2

Districts

Colombo	5.4
Gampaha	8.7
Kalutara	13
Kandy	17
Matale	18.9
Nuwara-eliya	33.8
Galle	13.7
Matara	14.7
Hambantota	12.7
Batticaloa	10.7
Ampara	10.9
Kurunegala	15.4
Puttalam	13.1
Anuradhapura	14.9
Polonnaruwa	12.7
Badulla	23.7

Moneragala	33.2
Ratnapura	26.6
Kegalle	2

Poverty Gap Index

Definition

Poverty gap ratio is the mean distance separating the population from the poverty line (with the non poor being given a distance of zero), expressed as a percentage of the poverty line.

Sri Lanka	3.1
Western	1.5
Central	4.6
Southern	2.6
Eastern	2.1
North-Western	2.9
North-Central	2.8
Uva	6.2
Sabaragamuwa	4.9

Cellular subscribers per 100 population - 2006

Mobile Phone

Sri Lanka 14.8

Province

Western 23.1

Central 12.2

Southern 12

Eastern 11.1

North-Western 14.2

North- Central 7.4

Uva 6

Sabaragamuwa 9.3

Unemployment Rate of Young People Aged

15-24

	1993			2006		
	Total	Male	Female	Total	Male	Female
Colombo	39.9	35.5	45.5	16.6	14.5	19.9
Gampaha	35.8	33.2	39.1	17.6	17	18.5
Kalutara	44.8	43.7	*	19.6	14.2	28.1
Kandy	44.9	30.1	62.1	27.6	25.6	31

Matale	26.9	*	41.2	18.5	11.8	29.3
N'Eliya	33.9	*	45.1	17.2	13.1	22.5
Galle	42	36.8	49.3	33	26.7	42.4
Matara	45.5	51.3	37.1	28.2	21.1	39.6
Hambatotota	38.2	38	38.4	28.1	22.3	37.3
Kurunegala	25.5	17.3	37.1	21.6	18.7	26
Puttalam	32.4	25.4	44.5	15.2	9.1	28.7
Anuradhapura	21.6	18.2	26.8	15.3	9.8	25.8
Polonnaruwa	17.7	*	*	25.2	*	35.9
Badulla	23.5	21.9	25.9	22.6	20.4	25.6
Moneragala	*	*	*	25.4	*	42.4
Ratnapura	39.5	38	41.5	25.2	20.1	34.5
Kegalle	39.1	34.8	44.3	22	15.6	32.2
Sri Lanka	34.9	29.9	42.2	21.6	17.5	28.2

Impact of Monitoring & Evaluation for
Developing of Sustainable Telecenter
Networks

