

Business Analysis of Sarvodaya Situational Reporting Procedures

“User Requirement Specifications”

to

Study the Feasibility of enabling Freedom Fone
for Emergency Data Exchange
(FF4EDXL)

Version 1.0

by

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SRI LANKA



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1 Introduction

Lanka Jathika Sarvodaya Shramada Sangamaya is a community-based organization active across 15000 villages in Sri Lanka. They frequently engage in disaster management activities such as the 2011 floods in the east, 2009 war in the north, so and so forth, in the past. The user requirements proposed in this document are to meet Sarvodaya's emergency information communication needs but generalizing it to cover a broader scope.

The purpose of this document is to document Sarvodaya's emergency information communication needs; specifically for alerting Community Emergency Response Team members and exchanging situational reports between the Sarvodaya disaster management unit; namely the Hazard Information Hub (HIH).

The process to understand the emergency communication business practices, the FF4EDXL project team conducted interviews and a survey. A workshop was conducted with Sarvodaya Provincial/District Coordinators and other Sarvodaya Executives. During this event the participants were introduced to FF4EDXL concepts. Then used that as a basis to engage them in focused group discussions to determine the ways and means by which they submit and receive information as well as the types of content that is exchanged for communicating the incident management information. The research team also analyzed some of the paper-based reports and information that was used in past disasters to communicate the situational information (see APPENDIX C for a few sample reports).

2 Existing Sarvodaya Situational Reporting

2.1 Overview

Following a disaster Sarvodaya community members (mainly victims or associates) call the Sarvodaya District Office or Head Office to report of incidents. The persons reporting the incidents are instructed to fax a summary through the District or Divisional office. Monthly summaries of operations and expenses are sent to the HIH through the post.

The Hazard Information Hub maintains a set of incident information reports: with the consolidated information of, mainly, resource requests. There is no standard incident reporting format, standard procedure for collecting situation information and processing them.

One key objective of Sarvodaya is to receive incident information from the field in a timely manner. These information (photos and stories) are published on their website. The intent is to make this information available to the donors and the media. This would assist Sarvodaya with receiving the much needed aid in providing relief operations to help the victims.

2.2 Reporting flow

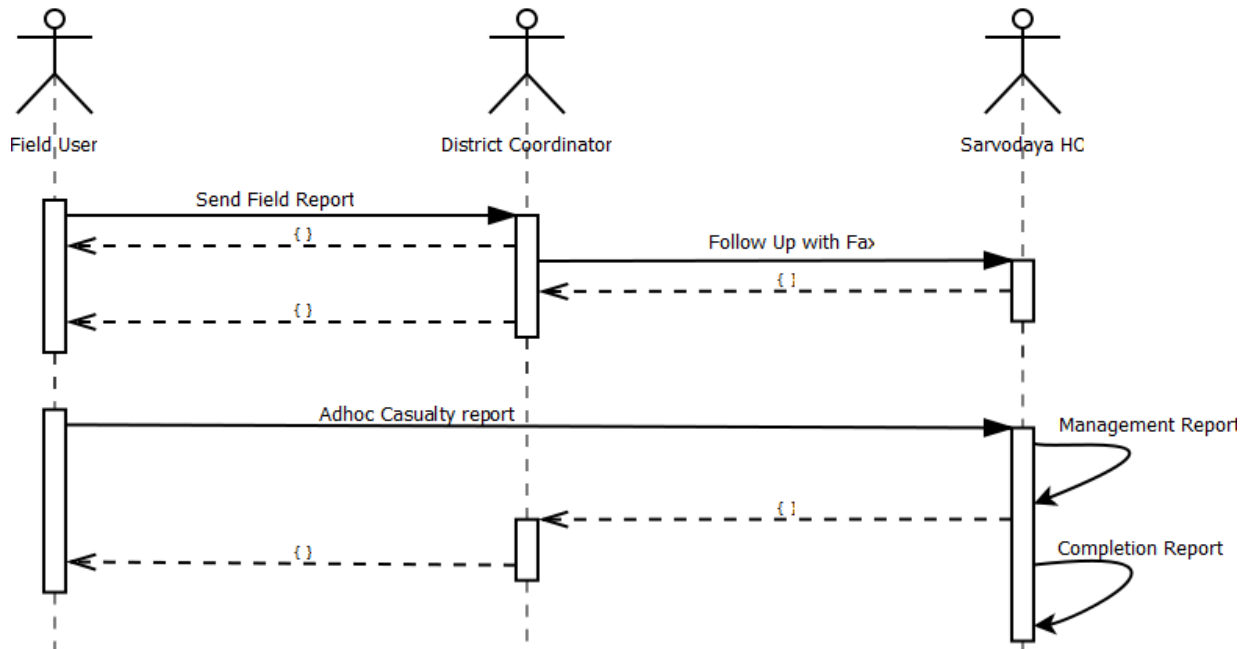


Figure 1: Sarvodaya situational reporting functions and actors

- Following a disaster incident, a field level Sarvodaya CERT will make a phone call to the District Coordinator to report the incident.
- District Coordinator will relay that information to the HIH along with the immediate needs, once again through a phone call
- Information received at the HIH is recorded on paper. That information is used to initiate mobilizing any response resources.
- Certain occasions, the district coordinator will follow up with a fax
- HIH will consolidate all reports received and develop a situational summary report to determine the resource and response requirements.
- Once the disaster response activities are over, each District Office will submit a completion report.

2.3 The real need

Government produces situational reports but there are major delays in publishing those information; also the information supplied are district level aggregates. Hence, Sarvodaya cannot utilize these information to determine the village level situational information. There are differences in the Sarvodaya administrative jurisdictions and the national administrative jurisdictions.

The unstructured and ad-hoc information exchange process is very labor and paper intensive. These methods do not provide the transparency and accountability.

2.4 Actors and Roles

Table 1: Sarvodaya main actors and their roles/responsibilities

Actor	Role and Responsibilities
Provincial Coordinator	The role is to coordinate all the events in a specific Sarvodaya province and also responsible for one district in that province. Provincial coordinators have monthly meeting at Sarvodaya head office. In a disaster situation he/she is the main responsible person for coordinating Sarvodaya disaster relief operation in that province.
District Coordinator	Works under Provincial Coordinator. Responsible for coordinating Sarvodaya events for particular district. In disaster relief operation he/she is communicating with head office directly and also through Provincial Coordinator.
District Office Staff	District Coordinator is the head of district office and staff mainly consist of an Accountant, Technical Officer, Office Clerk, Telecenter Coordinator and a <i>Shanthisena</i> Organizer. These persons are the members of disaster relief operation team.
Volunteers	Volunteers are normally young persons who have finished the Advanced Level examination. They are entitled for <i>Shanthisena Group</i> . Volunteers are given training on first aid, etc. Ground level disaster relief operations are carried out by them.
HIH Staff	Works under disaster management sectional head. The staff is consist of HIH head and volunteers. Works as the coordinating body between Sarvodaya Head office and Provincial Coordinators, District

	Coordinators in disaster situations.
Sarvodaya Executives	Sarvodaya Executive panel consist of Executive Director, Secretary, four Deputy Directors and several sectional heads. these are the main persons who guide and managing the disaster management operations.

2.5 Anticipated problems

- After the field coordinator, has supplied the incident information to the system, the district or divisional coordinator has to confirm the information. If the District or Divisional Coordinator is unaware of the incident then, how can they confirm the information?
- How will the confirmation process flow with the telephone calls and SMS alerts?
- If telephone networks are victims of the disaster and are not working, there is no way to feed the information to the system. In some areas certain mobile operator networks are not working; e.g. there may be no Mobitel coverage in some area.
- Incident information changes periodically. System should cope with the dynamic information change.

2.6 Present paper-based report elements

Table 2: Sarvodaya Incident reporting Elements

Attribute	Description	Example
Report Heading	Specification of report heading	Flood Situation Report, Getting flood relief items
Incident Name	The name assigned by the incident report sender.	Heavy rain and flood
Incident Location	The physical location of the incident occurred	Villora Waththa south, Moratuwa
Relief items	The items that people immediately need	Cooked food parcels (Lunch and Dinner)
Items Quantity	The quantity of relief items needed	100 food parcels
Report	The person who is sending the report,	Mr. Saman Disanayaka,

Sender	and his/her position	Program Coordinator Kaluthara District
Report Receiver	The intended incident report receiver and his/her title	Mr. K. Dasanayke Field Operations Director Sarvodaya Head Office, Moratuwa
Sent Date Time	The date and the time, when the message was sent	9.00AM , 11-11-2010
Incident observations	The incident related information that report sender has observed	Road in following areas are blocked due to flood-Inguru Kade, Thotalaga Junction Electricity supply interrupted in following areas - Aluth mawatha, Bloemendal Mawatha

2.7 Observations over Sarvodaya incident reports

- Although several incident attributes mentioned above, every attribute is not included in a report, some of them are missing.
- The structure, organization and the no of attributes mentioned in reports are completely different between two reports. Simply It doesn't have a standard format.
- The incident documents are just there, hard to find a correct match or mapping between them.
- These reports are mainly focused on getting Relief Items and their quantity, Sarvodaya Head office can't figure out what's the actual situation there. Eg Incident Observations are missing most of the cases.

3 Survey Results: Past Experience

The project engage a sample of disaster responders from four districts: Colombo, Matara, Nuwara-eliya, and Ratnpura, in an exercise that involved them in supplying information on their past disaster communication experience. They were given a questionnaire (Appendix A) and were asked to supply the information. The answers to the questionnaire would supply information on the ways and means in which they had communicated incident information during past flood, tsunami, landslide, cyclone related national disasters.

Survey results show that phone calls were the main source of exchanging disaster response information between Sarvodaya head office and the CERT field operatives. There are delays in receiving and compiling the ad-hoc situational information for planning the response actions such as supplying relief goods and services to the Internally Displaced Persons (IDPs). The objective of the Sarvodaya Hazard Information Hub (HIH) is to feed summaries of the the field observation information directly to the donors and media to request for aid and rapid response. The pilot will evaluate the feasibility of sending voice-based field observation reports that can be transformed in to standardized situational information for deriving the resource response.

The responses to the ways in which the CERT supply information to Sarvodaya HIH and the ways in which they receive information from Sarvodaya are predominantly through telephone calls (Figure 2 and 3). Some information is supplied through Fax. Figure 4 and Figure 5 shows that these emergency information is exchanged on a daily and weekly basis. These communications experiences are from the tsunami, flood, landslide, and cyclone hazard events that they had responded to in the past decade (Figure 6).

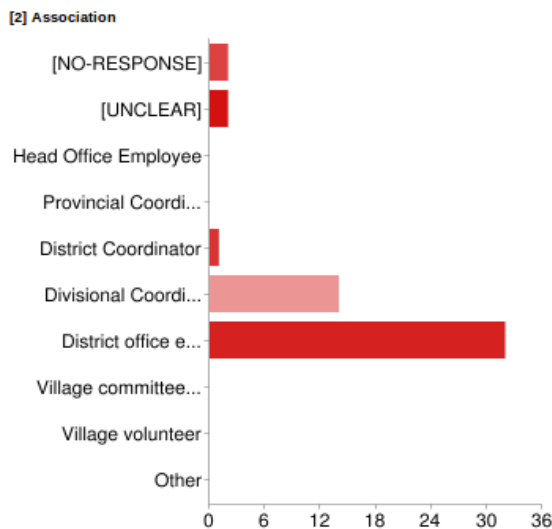


Figure 2: CERT Sarvodaya designations

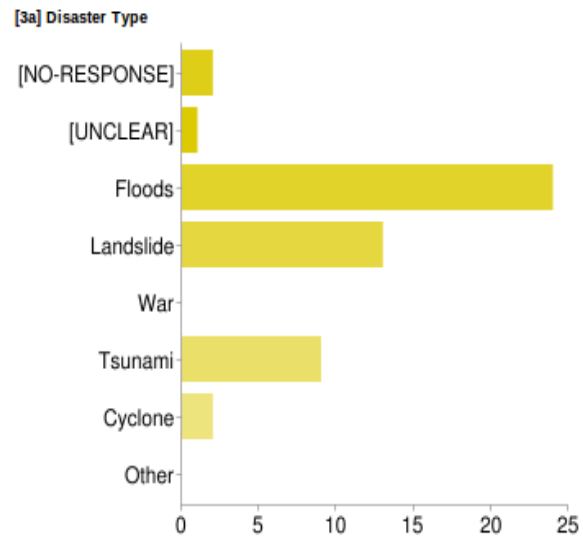


Figure 3: Past hazard event type responded



Figure 4: Wordle of response types

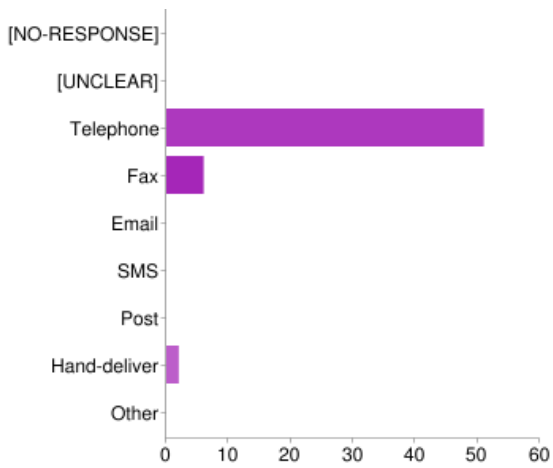


Figure 5: Method of submitting information

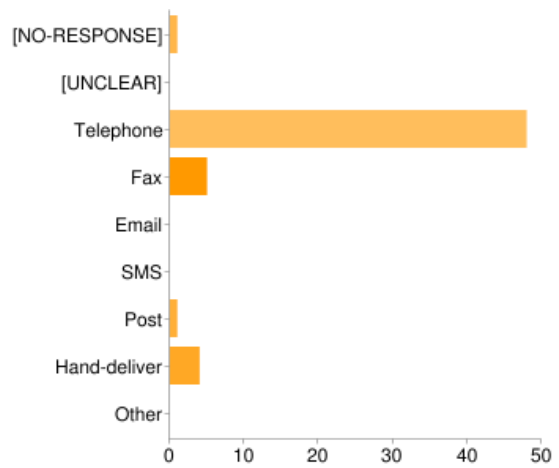


Figure 6: Method of receiving information

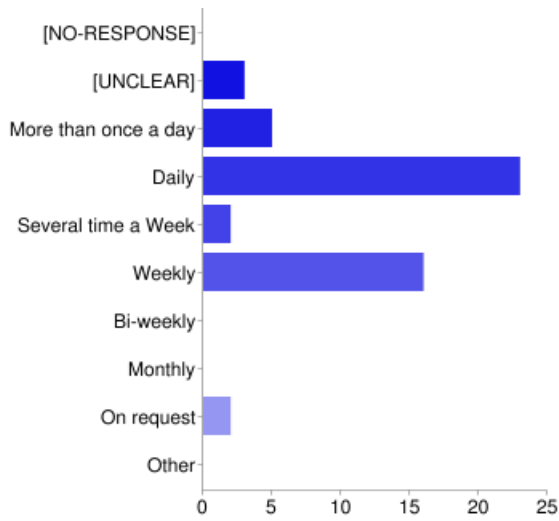


Figure 7: Frequency of submitting information

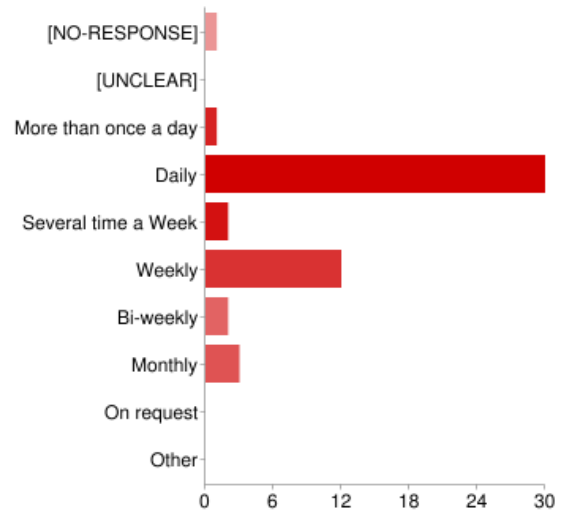


Figure 8: Frequency of receiving information

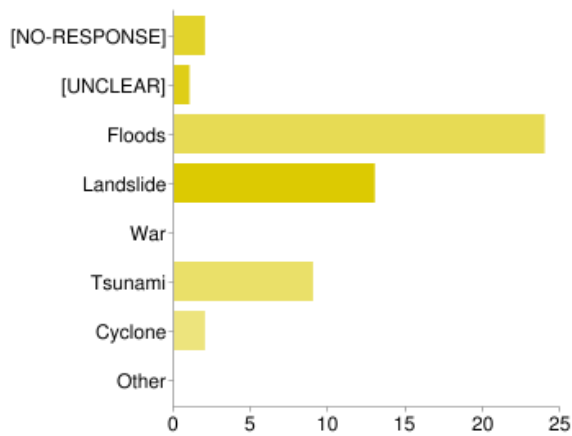


Figure 9: The types of disasters the participants had responded to in the past decade



Figure 10: Wordle of type of information shared

4 Conclusion

Given that Sarvodaya has used telephone calls and that most of their situational reporting needs can be addressed with an integrated and streamlined ICT system, the FF4EDXL project continues to develop the Software Requirement Specifications.

5 APPENDIX A - Glossary of Acronyms and Terms

Table 3: Glossary of terms

IDP	Internally Displaced Person
Sarvodaya	Lanka Jathika Sarvodaya Shramadana Sangmaya
EDXL	Emergency Data Exchange Language
FF	Freedom Fone
HIH	Hazard Information Hub
SCDMC	Sarvodaya Community Disaster Management Center
CERT	Community Emergency Response Team
SMS	Short Message Service

6 APPENDIX B - Questionnaire to determine Sarvodaya's Situational Reporting Needs

Objective: This exercise is to gather information from Sarvodaya's past rescue, relief, and recovery operations. Then use that evidence to determine the information needs for those rescue, relief, and recovery operations to develop a telephone system for sending and receiving disaster related report.

Information requested: Tell us the types of reports, the types of information, and the method of reporting you used following the most recent disaster you engaged in. This can be information you supplied to Sarvodaya or information Sarvodaya sent to you.

The questions below will guide you in submitting the required information. Instructions for dialing and recording the information is given below.

Two step process:

Step 1: write a short answer to the questions 1 – 10 in section A

Step 2: Follow the dialing/recording instructions in section B to record the answers

SECTION A: Questions

1. What is the name of the Sarvodaya village and district you belong to?

[Example: “Walasmulla, Hambanthota District”]

ANSWER:

2. What is your association with Sarvodaya?

[Example: Head Office employee, Provincial, district, or divisional coordinator, District office employee, Village committee member, Village volunteer, Other _____ (write other)]

ANSWER:

3. What is the last disaster that you participated? Tell us the type of the disaster, the affected location(s), and the time period.

[Example: “Floods in Batticaloa and Ampara Districts January 2011”]

ANSWER:

4. What were your responsibilities during the rescue, relief, and recovery operations during the disaster mentioned in 3 above?

[Example 1: “supplying drinking water to the IDP camps every day”,

Example 2: “provide medical assistance to the sick IDP”,

Example 3: “Cooking food for the IDP in camp”]

ANSWER:

5. How did you communicate rescue, relief, and recovery operations information to Sarvodaya?

[Example: “by phone and fax only”]

ANSWER:

6. What information did you send to Sarvodaya? Give the name of the report or form, if applicable, and the information that was supplied.

[Example 1: “food relief request report indicating the number of IDPs in camp and cooking equipment required”

Example 2: “damage report with details of the effected Sarvodaya villages”]

ANSWER:

7. How often did you send that information to Sarvodaya?

[Example 1: “food relief request report - once a week”

Example 2: “once a day”

Example 3: “damage report - only when requested”]

ANSWER:

8. What reports or information did you receive from Sarvodaya? Give the name of the report or form and the type of information you received.

[Example 1: “food relief dispatch report - type of food items and the quantity, Dispatch date and expected delivery date

Example 2: “relief expenses report – relief items, quantity, and cost]

ANSWER:

9. In what form or methods did you receive those information or reports from Sarvodaya?

[Example 1: “mobile phone and fax”]

ANSWER:

10. How often did you receive the information or reports from Sarvodaya?

[Example 1: “food relief dispatch report – once a week”

Example 2: “relief expenses report – once a month”]

ANSWER:

SECTION B: Dialing/Recording instructions

write the date and time you made the recording (write the time after completing the recording)

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Date:	Time:
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After you have written the answers to the questions 1-10, follow the instructions below to record the answers through the telephone system as a voice message

Step B.1: Dial the telephone number **0770593117**

Step B.2: Select the language {Sinhala, Tamil, English}

Step B.3: Follow the voice instructions to record your answers to the questions below. You will need to record the answers to all questions in a single message. Mention the question number before each answer.

Example: 1. Walasmulla, Hambanthota District ... 2. District office employee ... 3. Floods Batticaloa 2011 ... (continue)

7 APPENDIX C: Sarvodaya Past Incident Reports

7.1 Flood Situation Report 2010-Nov-11

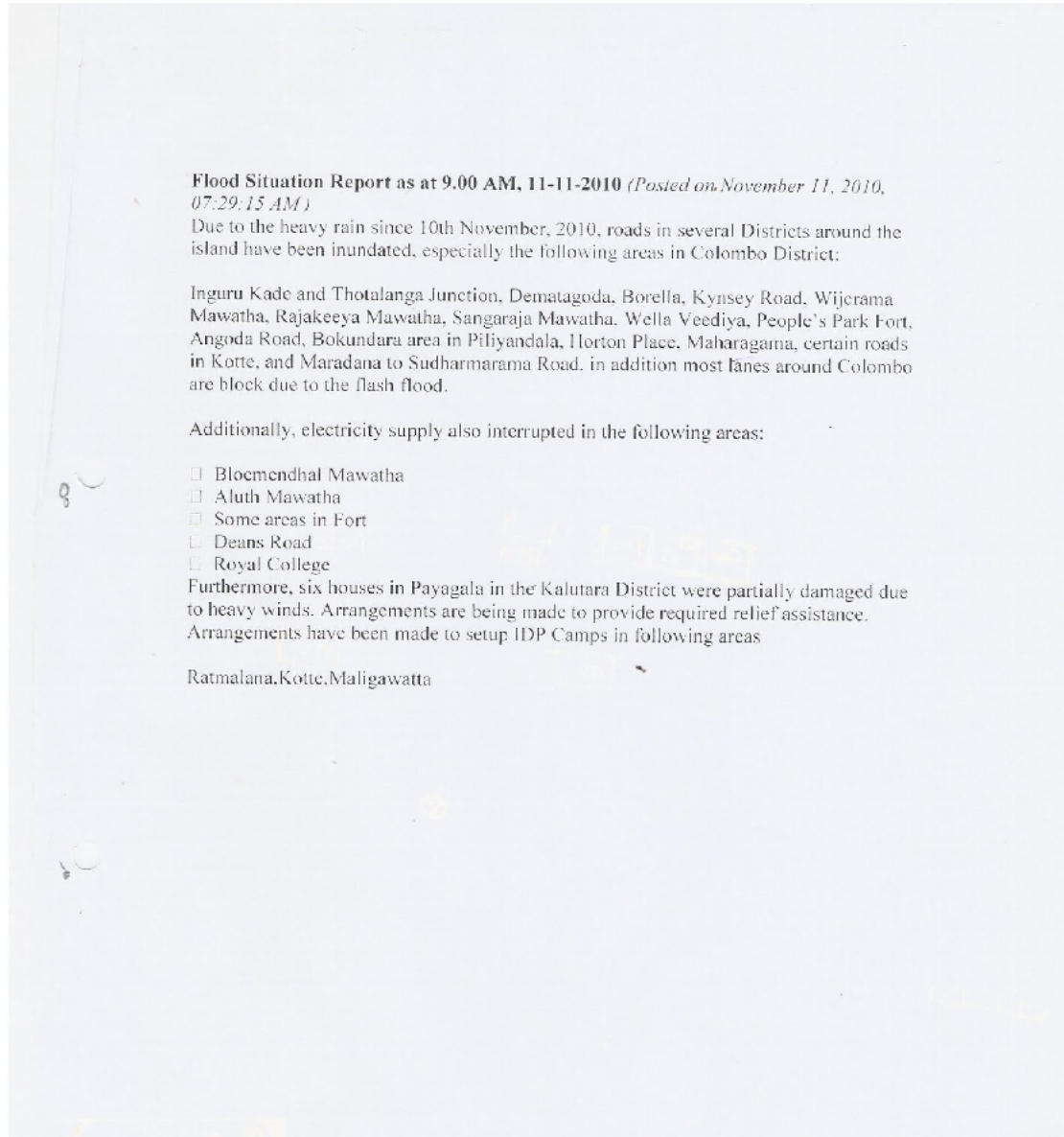


Figure 11: Flood Situation Report 2010-Nov-11

7.2 Flood Situation Report (ad-hoc) Colombo

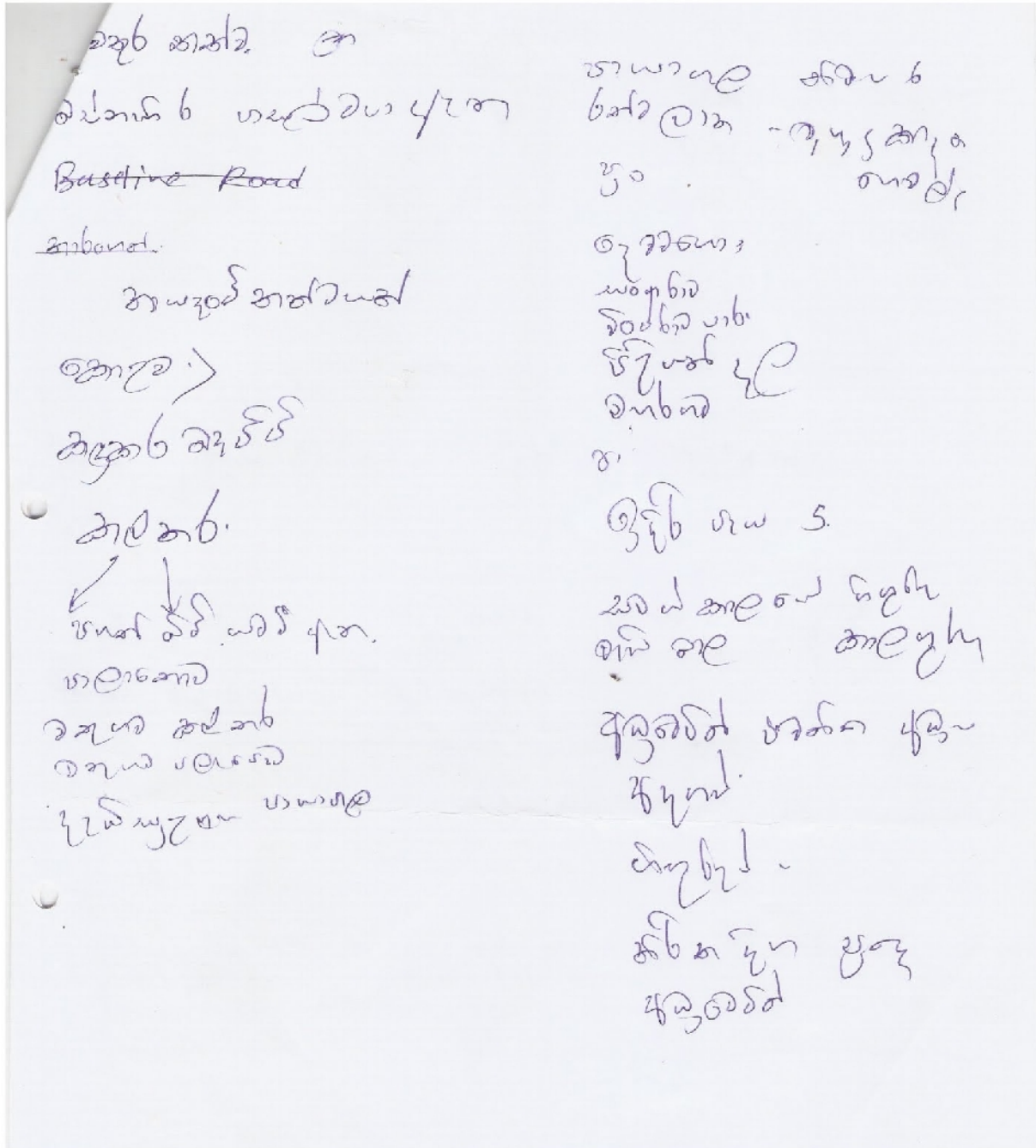


Figure 12: Flood Situation Report (ad-hoc) Colombo

7.3 Emergency Food Relief Information

Mr. Dinewerathna

Emergency Flood Relief Information

Location	-Moratuwa / Villora Waththa South -Moratuwa / Moolpe	
Relief Item	-Cook Food parcels (Lunch & Dinner	
Items Quantity	-372 (2010/05/21) -372 (2010/05/22) -372 (2010/05/23)	
Location	-Moratuwa / Moratumulla / Samarakoon Idama	
Relief Item	-Cook Food parcels	
Items Quantity	-50 (2010/05/20) -60 (2010/05/21) -50 (2010/05/22) -50 (2010/05/23)	$\begin{array}{r} 372 \\ 372 \\ 372 \\ \hline 1026 \\ 150 \\ 60 \\ \hline 1236 \\ 90 \\ 125 \\ \hline 1451 \end{array}$
Location	-Moratuwa / Moratumulla / Metta Waththa	
Relief Item	-Cook Food parcels	
Items Quantity	-30 (2010/05/20) -30 (2010/05/21) -30 (2010/05/22)	
Location	-Moratuwa / Egoda Uyana	
Relief Item	-Cook Food parcels	
Items Quantity	-125 (2010/05/20)	

Egoda Uyana

Figure 13: Emergency Food Relief Information

7.4 Sarvodaya Emergency Rescue Team Roster

No	G.N Divisions	Situation
01.	පාලන දෙපාර්තමේන්තුව	විදුලි බිඳී යාම හේතු වන අවස්ථාවකදී.
02.	වෛද්‍ය	විදුලි බිඳී යාම හේතු වන අවස්ථාවකදී.
03.	විදුලි බිඳී යාම (I කොටස)	විදුලි බිඳී යාම හේතු වන අවස්ථාවකදී.
04.	විදුලි බිඳී යාම (II කොටස)	විදුලි බිඳී යාම හේතු වන අවස්ථාවකදී.
05.	විදුලි බිඳී යාම (තෙවන කොටස)	විදුලි බිඳී යාම හේතු වන අවස්ථාවකදී.
06.	විදුලි බිඳී යාම (චතුර්ත කොටස)	විදුලි බිඳී යාම හේතු වන අවස්ථාවකදී.
07.	විදුලි බිඳී යාම (අවසාන කොටස)	විදුලි බිඳී යාම හේතු වන අවස්ථාවකදී.
08.	විදුලි බිඳී යාම (අනෙකුත් කොටස)	විදුලි බිඳී යාම හේතු වන අවස්ථාවකදී.
09.	විදුලි බිඳී යාම (වෙනත් කොටස)	විදුලි බිඳී යාම හේතු වන අවස්ථාවකදී.
10.	විදුලි බිඳී යාම	විදුලි බිඳී යාම හේතු වන අවස්ථාවකදී.

Figure 14: Sarvodaya Emergency Rescue Team Roster

7.5 Resource Request Email from Batticaloa District Office

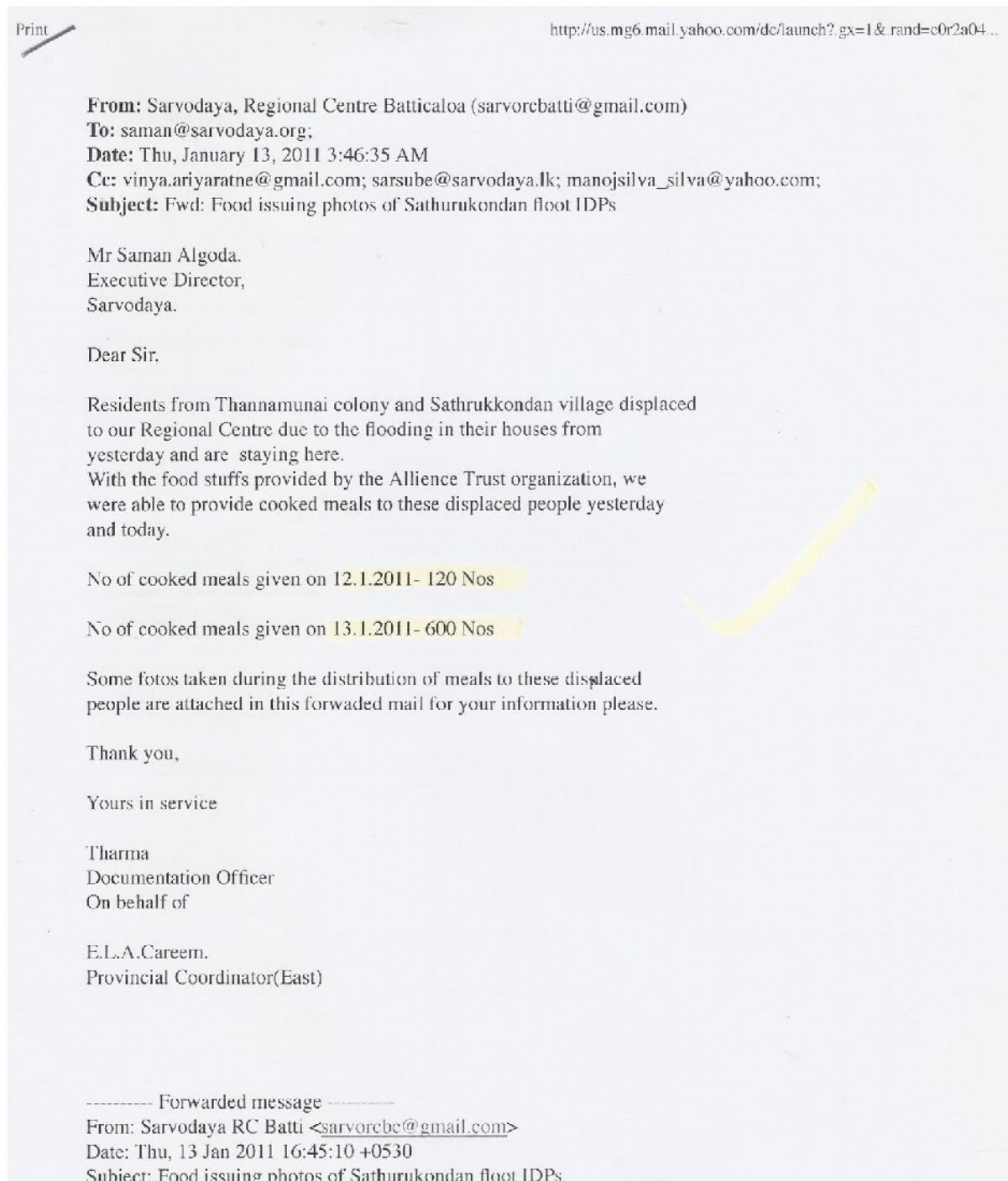


Figure 15: Resource Request Email from Batticaloa District Office