

Assessment of the Success of Government 's Emergency Relief Programme in Matara District

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ABSTRACT

This study examined the success of the emergency relief programme implemented by Government authorities in Matara, a district badly affected by the Tsunami of 26 December 2004. Guided by a questionnaire, 80 families accommodated in three Tsunami camps were first interviewed to ascertain whether they were satisfied with the way relief was provided to them. Based on a separate questionnaire, the views of the bureaucracy were sought thereafter on the same issue. The constraints faced by Government officials in distributing relief were also examined. Two research teams were detailed for the above study. It was concluded that the efficiency and effectiveness of the government's emergency relief programme in Matara was a success. The factors contributing to the success of an emergency relief programme are: a sound information base, leadership, motivation and rewards, human resource training, resource availability and inter-agency coordination.

Prof. A.T.Fonseka is a senior faculty member attached to the Postgraduate Institute of Management. This article is an abridged version of two research papers compiled by two student teams and submitted in partial fulfillment of their MBA degree requirements. The writer wishes to extend his thanks to these students (Messrs D.V.K. Kalupahana, P.Waduge, K.Karunagama and A.M.G.Perera) for the field work and the reports compiled by them under his supervision.

INTRODUCTION

The Tsunami that struck Sri Lanka on 26 December 2004 is regarded as the worst natural disaster that befell the nation in its long and uninterrupted history extending to over twenty five centuries. The disaster killed more than 30,000 people and rendered many homeless. This study purports to assess the degree of success of the emergency relief operations carried out by Government in the immediate aftermath of the Tsunami. The district selected for study was Matara, which was one of thirteen districts affected by the Tsunami.

The article is structured on the following lines. Commencing with the problem statement, the article then sets out the objectives and methodology of the study. It then presents the viewpoint of the affected families regarding the distribution of relief followed by Government's viewpoint on this issue. This is followed by a discussion of the findings. The final section is devoted to the conclusions of the study and recommendations.

STATEMENT OF THE PROBLEM

The Tsunami of 2004 was an unforeseen event which placed immense pressures on Government's institutional machinery, which at best, was geared to handle disasters of a much lower magnitude. In the immediate aftermath of the Tsunami, the Government had to take on the gigantic task of distributing relief to the many thousands of people who had taken refuge in nearby temples and schools. The success with which relief operations were handled by Government has given rise to conflicting and divergent views. Government officials maintained that relief arrangements were satisfactorily implemented, whereas the media gave much adverse publicity to the manner in which relief operations were handled by Government. The main shortcomings in Government's relief programme, as highlighted in the media, are presented below.

A) *Non-receipt of emergency relief.*

The Sunday Observer of 13 February 2005 reported that several affected families had not received the emergency relief promised by Government. It was mainly rice or wheat flour that was issued by the cooperative stores and even these basic items were collected at great inconvenience. The other staple food items were not available at the cooperative store, but freely available in the open market (Article by Vimukthi Fernando).

B) *Malpractices in the distribution of emergency relief.*

The Daily News of 8 February 2005, carried the news that some Grama Niladharis had deliberately included the names of several undeserving cases as entitled to relief (Article by C. Jayatilleke)

C) *Visits to tsunami camps by government officials.*

The Sunday Times of 3 April 2005 reported that the Tsunami camp at Siyambalagahawatta, Mahamodera, in Galle district, accommodating 300 inmates, had not been visited by any government official since its establishment (Article by M. de Silva and M. Weerasinghe).

These conflicting views on emergency relief distribution by government provided the rationale for the present study.

PURPOSE OF THE STUDY

This study purports to assess the degree of success of Government's emergency relief measures in the aftermath of the Tsunami.

OBJECTIVES OF THE STUDY

- a) To assess the efficiency of emergency relief distribution by Government.

- b) To assess the effectiveness of emergency relief distribution by Government.
- c) To identify the factors which determine the efficiency and effectiveness of Government's emergency relief operations.
- d) To make recommendations to enhance the efficiency and effectiveness of Government's emergency relief operations.

SIGNIFICANCE OF THE STUDY

No systematic studies have been done on Government's effort with regard to emergency relief distribution in the aftermath of the Tsunami and this study, therefore, intends to fill a gap in existing knowledge. The research is also expected to identify weaknesses in the current institutional arrangements and procedures in the disbursement of relief and offer suggestions to improve the effectiveness of such operations in the future.

METHODOLOGY

The study adopts an **inductive approach** to empirical research based on a careful collection of field data to assess the degree of success of Government's relief operations. As a first step, it was decided to study Government circulars specifying the relief entitlements of affected families, the contents of which are summarized in Table 1 below.

Table 1.
Government Circulars Specifying Relief Entitlements

Type of Relief	Value	Purpose
Funeral Expenses	Rs.15,000 per death	A payment to enable surviving family members to meet the funeral expenses of the deceased (Circulars dated 30 December 2004 & 5 January 2005 issued by Director, Ministry of Social Services). Payment via Divisional Secretariat
Ration Card (for provisions)	Rs.175 worth of rations per person per week	A payment to enable affected persons to buy their provisions from the local coop: store. An odd-numbered coupon was surrendered to the coop. store by the ration book holder to obtain his weekly rations. Weekly entitlements per person are stated below. * Rice/wheat flour 2800 grams * Dhal 420 grams * Sugar 140 grams * Cooking oil 140 grams * Soya meat 140 grams (Circular dated 11 Jan 2005 issued by the Commissioner General, Essential Services)
Ration Card (Cash allowance)	Rs.200 per person per week	A payment to enable an affected person to buy other items on cash in the open market (e.g. soap, toothpaste, tooth brush, medicinal items) An even- numbered coupon was surrendered by a ration book holder each week to obtain this cash payment. Payment made via the Samurdhi Bank. (Circular dated 11 Jan 2005 issued by CG, Essential services)
Kitchen Utensils	Rs.2500 (one-time payment)	A payment to enable affected families to purchase kitchen utensils to do their own cooking- payment via Div. Secretariat (Circular dated 5 January 2005 issued by Director, Social Services)
Restoration of livelihood	Rs.5,000 per family per month (duration unspecified)	A payment made for restoration of livelihood. Grama Niladhari/ Divisional Secy. would identify eligible families. Thereafter, a savings a/c is opened for eligible persons at the nearest People's Bank Branch. (Circular dated 17 Jan. 2005 issued by the Ministry of Finance & Planning)

Source: Government circulars

The success of the relief programme is measured through the two management concepts of efficiency and effectiveness. Drucker's memorable dictum summed up "efficiency as doing things right and effectiveness as doing right things". The criteria used to assess efficiency were whether emergency relief was distributed in a timely manner and without waste. Effectiveness was assessed by examining whether each affected family received the package of benefits as indicated in Government's instructional circulars.

QUESTIONNAIRES

For purposes of data collection three separate questionnaires were designed. The first questionnaire examined whether the affected persons received their due entitlements. The second was designed to obtain the views of the Divisional Secretary and his staff regarding the disbursement of relief and the constraints under which they worked. The final questionnaire was designed to collect information from the Grama Niladharis, who as field workers had the closest interactions with the affected. It was thought fit to interview the affected families first in order to establish whether they had received the promised relief before interviewing the officials who were responsible for providing such relief. Questionnaires were prepared in Sinhala and data was personally collected by the research teams. The contents of the questionnaires are reproduced below.

The first questionnaire was designed to collect information from the affected families and covered the following aspects.

- A check list to establish whether the items of relief were received or not (vide Table 1)
- Whether the correct quantity was issued.
- The quality of rations issued by the cooperative store
- Timeliness in issuing rations (actual dates and delays calculated)
- Difficulties (if any) faced in obtaining relief
- Suggestions to improve the existing procedures relating to relief operations

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The second questionnaire was designed to collect information from the Divisional Secretary and his staff. It contained several open-ended questions going into the following aspects.

- Circulars received from Government - their clarity, completeness, and timely receipt.
- Resource availability - extra vehicles, staff, office furniture, stationery, computers/typewriters, and communication equipment.
- Government incentives for Tsunami-related work.
- Coordination with other institutions. The Cooperative Store, the Samurdhi Bank, and People's Bank.
- Suggestions to improve existing procedures relating to relief operations

The third questionnaire was designed to collect information from the Grama Niladharis. Information was collected on the under-mentioned items.

- Adequacy of resources at camp office
 - Office space
 - Extra staff
 - Office furniture and stationery
 - Office equipment - telephones, mobile phones, torch with batteries.
 - Vehicles - motor cycle, bicycle etc.
- Incentives for Tsunami - related work
- Coordination with other relief agencies
- Suggestions to improve the present relief distribution scheme.

The research teams also conducted discreet inquiries from camp dwellers to ascertain the leadership initiatives and the motivation levels of government officials involved in disaster- related work.

SELECTION OF THE SAMPLE

The camps selected for study were from Matara district. The highest ranking civilian officer in a district is the District Secretary (formerly designated as Government Agent). He is responsible for implementation of government policy in his area. The district is divided into several divisions, each under a Divisional Secretary, who has several Grama Niladharis reporting to him.

Two student teams, each comprising two members, were deployed to conduct the study. The administrative division and the camps to be surveyed were selected on the basis of convenience. Even with regard to the selection of families for interview, the technique adopted was convenience sampling. One team selected 40 families accommodated in Matara Maha Vidyalaya for the survey (hereinafter referred to as Location 1). The other team selected 20 families from Gemunu Maha Vidyalaya and a like number from Walukaramaya for the survey (hereinafter referred to as Location 2). The research teams had undertaken a camp improvement project at these sites earlier and it was felt that the likelihood of getting accurate information for the study was high with the rapport already established with the camp dwellers.

The study was limited to a sample of 80 affected families. They were from the same geographical area and belonged to a similar income group. Given these circumstances, the convenience sampling technique adopted in this study could be regarded as appropriate since the affected families shared a similar life style.

With respect to Government officials who were the providers of relief, the sample interviewed by each research team comprised the Divisional Secretary, the Social Services officer, the Samurdhi officer and 4 Grama Niladharis.

There were seven camps under the purview of the Matara Divisional Secretariat, the details of which are given in Table 2 below.

Table 2.

Details of Tsunami Camps Under Divisional Secretary, Matara.

Name of Camp	No. of Families	No. of Families selected
Kithulwela	60	-
Solis	30	-
Hittetiya Raja Maha Viharaya	115	-
Saddhatissa Road	10	-
Matara MV	80	40
Gemunu MV	39	20
Walukaramaya	36	20
Total	370	80

Location 1= Matara MV

Location 2=Gemunu MV & Walukaramaya

Source: Divisional Secretariat, Matara

LIMITATIONS OF THE STUDY

The study is limited to Stage 1 of the disaster management cycle, namely, the rescue and relief stage. It does not examine the subsequent stages of rehabilitation and reconstruction of the disaster management cycle. Hence, it is not possible to comment on the overall effectiveness of government's disaster management programme.

Second, the study is limited to the administrative area coming under the Matara Divisional Secretariat. There were seven camps accommodating 370 families within this administrative division. The study is limited to a sample of 80 households drawn from three camps only.

Finally, the affected families may not always disclose the true information. Information is withheld and at times exaggerated to draw the attention and sympathy of donors in order to obtain more material benefits. However, the fact that the student teams had already worked on projects to improve the quality of life of camp dwellers was expected to increase the validity and reliability of the study findings.

SURVEY DATA, ANALYSIS AND FINDINGS

This section presents the information gathered through the field studies. As stated, the views of the affected families are presented first.

Table 3 indicates the number of families receiving the different types of allowances at the different locations surveyed by the two research teams.

Table 3
Summary of Receipt of Allowances

Type of Allowance	No. who received allowance at Location 1	No. who received allowance at Location 2
Funeral expenses (Rs15,000)	8/8	10/10
Ration card (Rs 375)	39/40	39/40
Purchase of cooking utensils (Rs 2,500)	39/40	38/40
Livelihood allowance (Rs 5,000)	38/40	36/40

Source: Survey Data

A) Funeral Expenses

With regard to funeral expenses, 8 families and 10 families respectively were eligible to receive this allowance at the two locations. Payment of funeral expenses required each claimant to produce the death certificate and an

application form duly completed and certified thereafter by the Grama Niladhari. All eligible families accommodated at both locations received this allowance from the Divisional Secretariat without delay.

In the case of bodies which were found and identified by the surviving family members, the death certificate was issued within 2 to 3 days. In the case of bodies which were reported missing, the death certificate was issued by Court on submission of an application by the aggrieved party and endorsed by the Grama Niladhari. The families expressed their complete satisfaction about the manner in which this issue was handled. Hence, with respect to the above relief measure, one could conclude that both efficiency and effectiveness were high.

B) Issue of Ration Cards

In the immediate aftermath of the Tsunami, the camp dwellers were able to sustain themselves on the generous contributions (of food and clothing) provided by local and international donors. During the third week of January 2005, ration cards were issued by Government entitling the card holders to obtain their weekly rations from the local Cooperative Store, up to a period of four months. In identifying the number of affected persons, the Divisional Secretariat had to rely on a voters' list prepared for elections which was not very up-to-date. Hence, the Grama Niladharis had to visit the camps to verify family details against the voters' list. The list of affected families was prepared on this basis and the ration cards were issued to eligible families by the Grama Niladharis.

In both locations surveyed by the student teams, 39 out of 40 had received the ration card in a timely manner. The delay in non-receipt of ration cards had been due to the failure of the families concerned to submit their requests in time.

With respect to items on ration, a common grievance was that the local Cooperative Store did not have many of the items in stock except for rice/

wheat flour. Further, the rice that was issued was of poor quality and tended to be sticky, when cooked. It was hinted that the open market carried ample stocks of all items that were not available at the Cooperative Store, although direct allegations were not made of stocks being leaked to the open market. The families were of the view that the ration card did not serve the purpose for which it was intended. The families also complained that they had to undergo much inconvenience and delay in obtaining their rations. Hence, with regard to the issue of ration cards one could state that this task was performed without delay by the Divisional Secretariat. However, the same cannot be said of the work performed by the Cooperative Society.

C) Payment of Rs.2,500 to buy Cooking Utensils

Government approved a one-time cash payment of Rs.2500 per family for the purchase of cooking utensils. The allowance was paid in March 2005 to enable families to do their own cooking in camps, which was preferable to the prevailing practice of mass scale cooking. Applications for this allowance had to carry the recommendation of the Grama Niladhari and payment was made promptly at the office of the Divisional Secretary. This decision was widely appreciated by the families because most of them had lost all their household belongings in the Tsunami.

In location 1, 39 out of 40 families had received the allowance while in location 2 the number receiving the allowance was 38. The three families who could not collect the allowance had been away from camp at the time the Grama Niladhari was collecting the required information for the applications.

It is to be noted that the authorities had been flexible in granting the above allowance, because some families had received cooking utensils from donors as well. In general, it could be said that the allowance was paid to those who deserved it and there were no reported incidents of large scale waste. Hence, in regard to the payment of the above allowance it could be said that both efficiency and effectiveness were high.

D) Payment of the Monthly Livelihood Allowance of Rs.5,000 per family

Government authorized a monthly payment of Rs.5,000 per household to compensate for the loss of income due to the Tsunami. This was later re-defined to apply to each family rather than a household because there were instances where more than one family had lived under the same roof. This rectified an anomaly because on the earlier interpretation two families living under the same roof would have received a sum of Rs.5000 only. Now, each family was entitled to a payment of Rs.5,000. A single-person family was entitled to receive half this amount (i.e. Rs.2,500).

The above payment of Rs.5000 per month was understood to be for a period of 6 months. Most families had received payment for the months of February and March 2005. The payment of the allowance was made on the recommendation of the Grama Niladhari and this procedure came in for heavy criticism. Allegations were made that several families who had been unaffected by the Tsunami also received this allowance due to favouritism on the part of the Grama Niladhari. Initially, the Divisional Secretariats in Matara had paid this allowance to over 5000 families, but the number got reduced to 1914 when a third round payment was being considered in July 2005. It is clear from the above that there had been considerable waste with regard to the payment of this allowance, which was a sign of inefficiency.

DISTRIBUTION OF EMERGENCY RELIEF - THE GOVERNMENT VIEW

This section presents the views of Government authorities with respect to the distribution of emergency relief.

A) Funeral Expenses

For purposes of obtaining this allowance, it was mandatory for a claimant to submit the death certificate of the deceased along with an application endorsed

to that effect by the Grama Niladhari. The government had started to pay this allowance after about three weeks from the date of the disaster. In the case of bodies that were found and identified, the death certificate had been issued within 3 days of submission of the application and prompt payment had been made. In the case of bodies that were never found, the death certificate had been issued by Court on submission of an application endorsed by the Grama Niladhari. This had taken about 2 months. This task was performed satisfactorily and was confirmed by the aggrieved parties.

B) Issue of Ration Cards

The government authorized the issue of a ration card to each person affected by the Tsunami. This permitted each card holder to obtain rations to the value of Rs.375 per week. It was soon revealed that the Cooperative Store did not have many of the items required by the affected families. Hence, it was decided that the Cooperative Store would issue only rice, flour and a few other items to the value of Rs.175. The balance Rs.200 was to be paid weekly in the form of cash to each card holder through the Samurdhi Unit housed in the Divisional Secretariat. Thus, a 5-member family would receive a cash payment of Rs1000 each week. The changed procedure was highly appreciated by the affected families as cash payments gave them a choice with respect to the items they wished to purchase in the open market.

C) Payment of Rs. 2,500 to buy Cooking Utensils

The government approved the payment of a one- time allowance of Rs. 2,500 to affected families for purchase of cooking utensils. This was paid in the month of March 2005 after a decision was taken to permit families in camp to do their own cooking. This was appreciated by the camp dwellers who perceived it as better than the prevailing practice of mass scale cooking.

D) Payment of the Monthly Livelihood Allowance of Rs. 5,000 per family

The payment of the above allowance proved to be the most contentious issue. During each of the months of February and March, as many as 5254 families and 246 individuals in Matara District had been paid this allowance. There appears to have been a temporary suspension of payments thereafter on account of several shortcomings that had been noted in the payment procedure. When the third payment came up for consideration in mid- 2005, the eligible number in Matara district dropped drastically to 1914 families and 14 individuals. The new Divisional Secretary, Mrs. Athukorala, who succeeded the earlier incumbent Mr. T. Wanigasekara, was of the view that the allowance had been paid to several people who were not affected by the Tsunami. Hence, she had taken steps to strike off the names of all ineligible persons from the list.

In assessing the number of affected persons, one of the biggest drawbacks in the entire relief operation was the lack of accurate information. The authorities had to go by voters' lists which were inaccurate as they were not updated regularly. Hence, the Grama Niladharis had the added task of visiting camps and houses to collect information about the affected people and then checking the accuracy of the information with the voters' list and their own personal knowledge of individuals.

Table 4
Efficiency and Effectiveness in Payment of Relief Allowances

Type of Relief	Efficiency		Effectiveness	
	Location 1	Location 2	Location 1	Location 2
Funeral Expenses	High	High	High	High
Issue of Ration Cards	High	High	High	High
Issue of Ration Items (via Coop)	Low	Low	Low	Low
Purchase of Cooking Utensils	High	High	High	High
Livelihood Allowance	Low	Low	High	High

Source: Survey Data

FINDINGS AND DISCUSSION

Table 4 shows that the distribution of relief measures had been conducted with a high degree of efficiency and effectiveness in the area coming under the Divisional Secretary, Matara. Hence, it is pertinent to investigate the factors that contributed to the success of relief operations in Matara District, whereas Government's role in other districts had come in for heavy criticism in public fora and the mass media.

A) Leadership

As stated, the tragedy that struck the nation in the form of a powerful Tsunami was unprecedented and the situation was particularly grave because Government had neither a contingency plan nor the resources at hand to face a crisis of such magnitude. The situation called for exceptional qualities of leadership and dedication, and Matara district was perhaps unique in this respect. The District Secretary, Matara, Mr. Gamini Jayasekera, was one who had escaped the Tsunami waves and his office was completely submerged by sea water. Nevertheless, within a few hours, he set up a temporary office near the Matara Bodhiya and this was to serve as the venue for regular meetings. The first meeting was chaired by Minister Mangala Samaraweera, JVP politicians and senior government officials. Thereafter, the District Secretary and senior officials met at this venue at 7 p.m. each day to discuss the progress of relief operations and plan future activities. The example set by the District Secretary was contagious.

Taking a cue from his superior, Mr. T. Wanigasekera, the Divisional Secretary, took several initiatives to expedite the distribution of relief to the affected. With the help of the police he had forced open some of the wholesale shops in Matara town and taken over the stocks of food available in these outlets. In each case, he issued receipts to the shop owners and promised re-imbursements as soon as funds were received from Colombo.

Providing meals to the families in camps was an equally complex task. He decided that the best way to overcome the problem would be to cook the meals

at a single location and deliver the meals to camps that came under his supervision. Accordingly, space was obtained at the Solis Rest to organize cooking activities. In the immediate aftermath of the Tsunami all meals were cooked at this central place and delivered to the different relief centers. He then took the initiative to organize cooking facilities at the camps. Instructions were given to purchase the necessary equipment for mass scale cooking in the camps. Utensils were purchased on an undertaking that payment would be made later.

B) Motivation

The District Secretary and his staff worked long hours each day, without leave and without any thought of monetary benefit. It was only in March 2005 that Government offered the payment of an additional one month's salary to the Divisional secretary and his staff. Later, Government decided to make another payment equivalent to 17 days' pay taking into account all the holidays on which they had worked since the first payment. It was decided later to pay only for work done on special holidays. This resulted in the incentive allowance getting reduced to 7 days, which was most discouraging.

C) Resources

The success of any disaster management programme rests on the availability of resources which must be made available to those who are responsible for the implementation of such programmes. As in the other Tsunami- affected districts, government officials worked under severe resource constraints. The Divisional Secretariat needed extra staff, vehicles, office equipment, etc. but these were not forthcoming. Hence, the Divisional Secretary had to take the initiative to commandeer vehicles to transport the dead, buy cooking utensils for the central kitchen and welfare centres (camps) and even take over food stocks from wholesale outlets on the promise of making payments later.

D) Information Base

The successful implementation of a disaster management programme depends to a great extent on the availability of an accurate and up- to-date information base. The lack of such a base was a shortcoming common to all districts. This resulted in an over-payment of the livelihood development allowance to families, which was to be expected given the chaotic conditions under which the bureaucracy had to work.

E) Coordination with other Implementation Agencies

Close coordination with other agencies involved in distribution of relief is vital for the success of a disaster management programme. In Matara district, there was close collaboration between the different institutions involved in disaster management due largely to the exemplary role played by the District Secretary and his team. However, the role played by Cooperative Societies was most unsatisfactory.

In conclusion, it could be stated that the distribution of emergency relief has been done with a high degree of success in Matara District. This can be attributed to the leadership given by the District Secretary, the commitment of his staff and the close coordination established between the different institutions and agencies involved in disaster management. The performance at district-level could have been further improved had there been clear guidance from the centre (Colombo), supply of adequate resources and the availability of a sound information base. The final section contains the recommendations.

RECOMMENDATIONS

1) Contingency Planning

A crisis is a low-probability, high impact event that causes severe disruption to normal life. It disorients most people, at least temporarily, and adversely affects the disaster management operations. One way to ensure proper focus during a crisis situation is to have a contingency plan that would dictate what must be done in the event of a crisis. Planning is important and if managers do not plan ahead they can only react to problems as they arise. Proactive management involves forecasting and planning so as to anticipate likely developments and take appropriate action before they are forced on the organization as problems. It is also necessary to have disaster management plans at regional and district levels.

Contingency planning requires that human resources be well trained to handle a disaster situation. Field-level staff must be competent to act according to the situation and do so with a sense of urgency. Every field officer in a crisis situation would be acting as a (situational) leader since he may not get detailed instructions from superiors to suit the ground situation. This, therefore, requires field-level staff to develop their decision making and problem solving abilities.

2) Leadership

As emphasized in the foregoing account, a crisis calls for exceptional qualities and competencies from those who hold leadership positions. The optimism, resourcefulness and dedication of the leader can be contagious and enthuse his team members.

3) Motivation

The amount of work to be handled in a crisis can be enormous and if people are not motivated enough to perform, the entire disaster management programme is not likely to meet with success. There must be a performance evaluation system to take into account the extra effort of people who are

involved in the relief operation. The current practice of rewarding everyone equally, irrespective of the level of performance, would not contribute to superior performance. It is necessary to have an attractive incentives scheme appropriate for the occasion to motivate the staff involved in disaster management activities.

4) Resource Availability

It is necessary to have adequate resources at regional/district levels to implement disaster management activities. Resources would include access to additional staff, vehicles, computers, and communication equipment. It may not be possible to have a fleet of vehicles on standby for a disaster since idling assets amount to a waste of resources. However, there must be a clear reporting line to get the required vehicles and other facilities speedily, when needed.

5) Information System

A comprehensive data-base is a vital necessity to handle disaster-related activities at district/divisional level. The available record at the local level was the voting list at each Grama Niladhari Wasama. Each year, the Divisional Secretariat collects vast amounts of data relating to demographics, resources and facilities, which are recorded manually in registers. There must be a mechanism to update the data base regularly, whenever there are changes. The system must have a set of standard reports that can be generated immediately such as reports to indicate the name, age, employment and number of members in the family. The recent incident highlighted the weaknesses regarding the security of data when most records were washed away with the information they contained. Information retrieval would have been easy if these had been recorded using computer technology, together with proper backup procedures. This would have greatly improved both the efficiency and effectiveness of relief operations.

6) Inter- Agency Coordination at District/Divisional Level

For the successful handling of a crisis there should be a clear demarcation of responsibilities devolving on the different implementation agencies at district/divisional level. This was again a glaring weakness that surfaced in disaster management activities. Likewise, every member of the team must be clear about the role s/he has to play in a crisis situation. It is also necessary to assign specific responsibilities to each team member so that the leader would know whether the work allocated has been performed to the satisfaction of the affected people.

7) Revision and Customization of Relief Measures

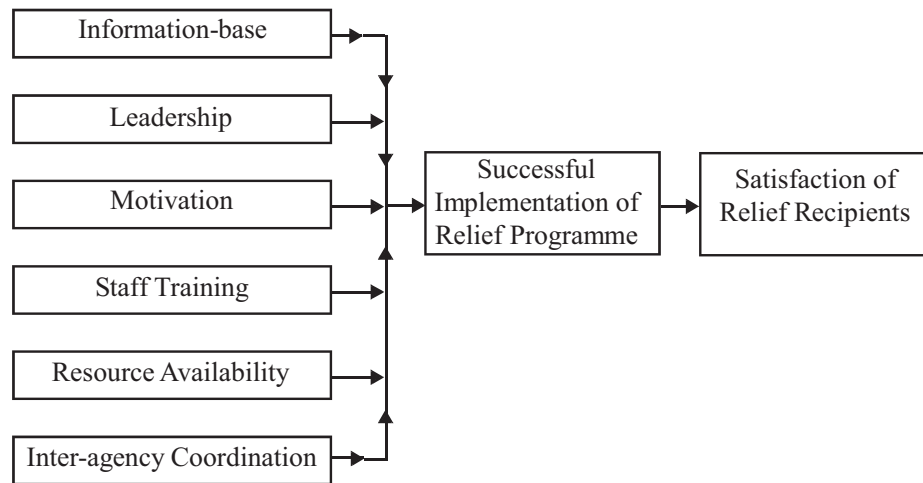
The relief measures proposed by government was a general relief package for all the affected. What was lacking was the fine-tuning of relief measures to satisfy the specific requirements of affected groups as opposed to affected individuals.

The relief package offered by the Government of Tamilnadu envisaged the issue of clothing items such as one dhoti, one saree and two bed sheets to each affected family. In order to ensure the care and safety of adolescent girls, the Chief Minister announced a special package for adolescent girls to be admitted into Service Homes run by the State Government as well as opening of two new Service Homes in the Districts of Kanyakumari and Nagapatnam. A relief package consisting of text books, note books and two sets of uniforms was provided to school-going children affected by the incident. A separate package was also offered to those engaged in fishing (Press release of the Tamilnadu Government dated 28 December 2004 and 5 January 2005).

The study adopted the inductive approach to empirical research. At the conclusion of this study, it is possible to identify the causative factors that contribute to the success of the emergency relief programme. These are: the availability of a sound information base, leadership, motivation and rewards, human resource training, resource availability, and inter-agency cooperation. The conceptual model depicts the relationship between the independent variables and the outcome, which is the satisfaction level of the affected persons.

Figure 1

Conceptual Model: Factors Contributing to Success of Relief Programme and Satisfaction of Relief Recipients



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