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Post Disaster Recovery Experience in Governance Perspectives, A Case Study on Recovery of Tsunami Affected Micro, Small and Medium Enterprises of Matara District in Sri Lanka

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The main objective of this paper is to identify some of the key issues encountered by Tsunami affected Micro, Small and Medium Enterprises (MSMEs) in the process of recovery. First the study identifies damages and losses to MSMEs, secondly ascertains the type of benefits received by the affected MSMEs from various donors, thirdly evaluate problems and difficulties faced in the benefits distribution process. The main data and information for this study obtained from of available literature, web sites and publications supplement with primary data collection from selected sample in Matara district in Southern Sri Lanka and supplementary interviews were conducted with key relevant stakeholders. The results of the study show that Tsunami affected many MSMEs were ignored and carried wrong priorities. Besides the support provided was insufficient for an effective recovery. There existed many governance-related problems in recovery process. However, overall recovery was at low rate of 59 percent. Though, Sri Lanka received second highest local and foreign donation among the Tsunami affected nations, affected MSMEs got a little support and assistance to recover and no any records can be found where these numerous amount of donations received gone. The methodology used, findings and policy recommendations derived from this research can be used to analyze similar cases in other countries and to design a proper coordination mechanism to benefits distribution and speedy recovery process of natural disaster of large scale.

Keywords: Tsunami, Disaster, Micro, Small and Medium Enterprises; MSMEs, Recovery, Governance, Sri Lanka.

Introduction

On 26 December 2004 Sri Lanka was hit by the tsunami caused by a massive off shore earthquake some 1500 km away near Northern Sumatra. The earthquake, measuring 9.0 on the richer scale, was one of the largest ever recorded in the sea, and was produced by movements in tectonic plates at the interface between the India and Burma plates. Over 1000 km of the earth's crust snapped, moving the Burma plate approximately 13 meters over the under thrusting Indian plate. The thrusting rapidly raised the sea floor, and the 1500 km of open and deep ocean in the bay of Bengal enabled the ocean waves to build up momentum forming a massive wall of high water on the coastlines. The tsunami was by far the largest natural disaster experienced by the country. About two thirds of the 1400 km long coastline was affected. The directly exposed coastline from the Northern Jaffna peninsula, along the eastern coast down to the Southern tip of Dondra Head, as well as the relatively sheltered Southwestern and Western coasts, were inundated by the tsunami waves. Thirteen districts along the coastal belt affected namely: Ampara, Batticaloa, Colombo, Gampaha, Galle, Hambantota, Jaffna, Kalutara, Kilinochchi, Matara, Mulaitiu, Puttlam and Trincomalee. The study is focused on the Micro, Small and Medium Enterprises (MSMEs) of the Southern Province. The study has adopted the definition, refer Table 1, as used by Sri Lankan's Department of Census and Statistics. Table 2 provides a summary status of MSMEs affected by Tsunami.

Research Objectives

This study is designed to evaluate the damage caused by the Tsunami disaster and requirements needs to rehabilitate and re-established Tsunami affected MSMEs in Matara district. The study surveys fifty business organizations with the following research objectives:

1. To identify damages and losses to MSMEs in Matara district.

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2. To assess the benefits received by the affected MSMEs from various organizations.
3. To evaluate problems and difficulties faced by the beneficiary organizations in the benefits distribution.
4. To recommend strategies, guidelines and polices for tsunami affected MSMEs to be self-sustained within a reasonable time period.

Extent of Damage

The extent of damage was widespread covering human life, buildings, infrastructure, communications, inventories and business operations. The total damage can be classified under human, economic and the social loss. The human loss is in terms of people who lost lives, got injured and got internally displaced. The economic impact of the tsunami included asset losses (direct damage), output losses (indirect damage), and fiscal cost (second effects). Preliminary estimates of total direct losses were estimated approximately $ 1 billion (4.5 percentage of GDP), and destruction of private assets in the affected districts at about $ 700 million. The social loss in areas of breakdown of social life included education, livelihood, vocations etc. Major loss to the fishing sector ($ 97 million) and tourism industries ($ 250 million) came in the form of loss of infrastructure and equipment, while the housing sector sustained damages close to $ 306-341 million (Dasanayaka and Wedawatta, 2014 a,b; Shaw, 2010). Table 3 depicts a brief summary of the losses.

It's important to note although the sectors affected by the tsunami did not constitute a large portion of GDP, the affected provinces (South and North East) contributed 17.5 percent of GDP while accounting for a large portion of the population (26 percent) Available poverty data for districts in Southern province affected by the tsunami showed that between one quarter to one third of the population in these districts lived below the poverty line.

Macro-Economic Impact by Tsunami

Output losses resulting from the damage of assets and the disruption in economic activity in the affected sectors were estimated at $ 330 million during 2005 and 2006 (around 1.5 percentage of GDP). In terms of employment an estimated 200,000 people (or about 3 percent of the labour force) might have lost their job, including 100,000 in fisheries; 27,000 in tourism and related activities; and the rest in other informal sector activities. The tsunami was expected to slow down GDP growth in 2005 by up to 1 percent from (5 to 6 percent). The relatively limited impact was because that most affected sectors of the economy- fishing, hotels and restaurants together contributed only 3 percent to GDP.

Economic Needs For Recovery

The total cost of the required relief, rehabilitation and reconstruction effort had been estimated at approximately US$ 2.2 billion. The Government of Sri Lanka projected that it would take 3-5 years to rebuild destroyed structures and achieve full recovery (Ratnasooriya et.al, 2007). The largest financing needs were identified in the East (45%), followed by south (25.9%), North (19%) and West (10.1%). Preliminary estimates of financing needs for reconstruction were estimated at around $ 1.5 billion (about 7 percent of GDP). According to preliminary official estimates, relief and reconstructions needs would lead to an increase in merchandise imports in 2005 by around $ 700 million relative to original projections, while merchandise exports were expected to remain at pre-tsunami levels (Steele, 2006). Increased private transfers would contribute to financing increased imports. Services receipt will decline reflecting a drop in tourist arrival in the order of 175,000 relative to original 2005 projections (600,000). Additional external financing requirements after the tsunami were estimated at $ 79- million in 2005, which could be provided in the form of new concessional loans, grants, and possibly debt relief (DCS, 2004; 2005 a,b). Table 4 sums up the impact and the recovery needs.

Table 1: Definition for Micro and SMEs in Sri Lanka

Size of enterprise	Asset value (Million Sri Lanka RS)	No of Employees
Micro	<5	<5
Small	5- 30	5-30
Medium	30 – 50	30 – 129

Source: Sardana and Dasanayaka, 2013.

Table 2: Affected Enterprise Distribution by Location

Province	District	No. of Enterprise				
		Micro	Small	Medium	Large	Total
Western	Colombo	149	182	02	06	339
	Kalutara	90	197	11	04	302
	Gampaha	06	15	02	04	27
Eastern	Ampara	422	121	03	03	549
	Batticoloa	191	112	00	00	303
	Trincomalee	145	131	05	04	285
Southern	Galle	537	347	21	24	929
	Matara	516	328	12	05	861
	Hambantota	321	178	13	02	514
Northern	Jaffna	40	32	04	00	76
	Mullative	176	27	01	00	204
Total		2593	1670	74	52	4389

Source: Industrial Development Board (IDB), 2005. Survey on Tsunami affected industries in Sri Lanka, January 2005.

Table 3: Summary of Losses

Human	
Number of people killed	35,322
Number of people injured	21,441
Number of Internally Displaced people(IDPs)	516,150
Economic	
Value of lost assets	US $ 900 million
Number of lost livelihoods	150,000
Number of houses damaged	98,000
Proportion of fishing fleet destroyed	75%
Extent of agricultural land salinized	23,449 acres
Damage to tourism infrastructure – Large hotels	53 out of 242
Small hotels	248
Related small enterprises	210
Social	
Widowed, orphaned and affected elderly and disabled	40,000
Health facilities damaged	97
Education facilities damaged:	
Schools	182
Universities	4
Vocational Training Centre	15
Schools used as camps for IDPs	446
School children affected	200,000

Source: Government of Sri Lanka, 2005

Table 4 : Impact on the main sectors and their recovery needs

Sector	Damage		Recovery Needs	
	LKR - billion	USD – million	LKR – billion	USD – million
Education	2.7	26	4.7	45
Health	6.3	60	8.8	84
Housing				
Agriculture and Livestock	304	3	427	4
Livelihoods			14.7	140
Power	1	10	7-8.1	67-77
Water Supply and Sanitation	4.4	42	12.2	117
Transportations and Railway	1.5	15	13.6	130
Transportations and Roads	6.3	60	21	200.2
Fisheries	10.1	97	12.4	118
Tourism	26.2	250		

Source: Federation of Chamber of Commerce and Industry of Sri Lanka, Survey, 2005.

Support and Delivery of Aid

With the outpouring of support from the global community, Tsunami highlighted a number of factors regarding the coordination and delivery of international aid. These included difficulties regarding financing such missions, providing the required type and amount of supplies, and bringing aid to affected populations while dealing with home and foreign governments (IPS, 2005; ICC, 2005).

Relief and Aid

Immediately after the Tsunami, thousands made a dash for refuge in nearby around 600 places of temporary shelter, mainly schools and places of religious worship-temples, mosques and churches. The task of providing help with the essential necessities food, water, shelter and medical cure was immense. Sri Lanka's Buddhist psyche of magnanimity to help in times of distress played an important role. Within hours, assistance started to pour in from local communities, followed by the government, private sector, non-governmental organizations (NGOs) and international communities. Emergency repairs to damaged infrastructure were carried out in parallel to the provision of essential services-accessibility, health and sanitation, water supply, power and telecommunication facilities. Local and foreign military personnel also assisted in repair work as well as rescue operations, the identification and burial of dead bodies and clearing of debris. A scheme to provide food aid for nearly one million people and a compensation scheme for victims were initiated. Despite the sheer magnitude of the disaster and the lack of readiness of the country, thanks to the response, Sri Lanka recorded few deaths due to delayed medical attention or tsunami related illnesses. Aid commitments by the international community reached nearly US $ 3 billion (Alailima, 2006) for the recovery effort and in addition, the country received assistance in the form of debt relief/moratorium and exceptional trade benefits.

Delivery of Aid

Recognizing the sheer magnitude of the disaster, coupled with the lack of previous experience, several response mechanisms were enacted to expedite the relief effort immediately after the tsunami. A Center for National Operations (CNO) was created under the President of Sri Lanka to liaise with all involved with the emergency response and coordinate the relief effort. Disaster management authorities were appointed at district levels to coordinate local relief efforts. The structure of the coordination mechanism changed subsequently with the disbanding and/or merger of different agencies during the recovery and reconstruction period. In November 2005, all government agencies involved with Tsunami recovery and reconstruction were merged to form a single agency, the Reconstruction and Development Agency (RADA). Affected people were initially assisted through cash grants, food aid, and later through cash for work and microfinance schemes. Over 250,000 households received cash grants in installments, while nearly US $ 7 million was spent on the cash for work program in the first year after the tsunami. More than 13,000 subsidizing loans amounting to US $ 38 million were disbursed (Government of Sri Lanka, 2005).

Governance

Individuals, small groups, the government, religious institutions, private sector organizations, the media and non-governmental organizations all rushed to help distraught and desperate fellow citizens. Recognizing the seriousness, urgency and magnitude of the problem coupled with the lack of experience (the word Tsunami never existed in the local vocabulary), the government created an institutional mechanism to coordinate assistance efficiently (Jayasuriya et.al, 2005). This mechanism was built on donor delivery of assistance and agreed upon guiding principles of transparency and accountability, sustainability coordination and consultation in recovery process (De Mel, 2010; Dickson, 2006).

In the aftermath of tsunami, the President of Sri Lanka set up three task forces:

1. Task Force for Rescue and Relief (TAFRER)
2. Task Force for Law and Order and Logistics (TAFLOL)
3. Task Force to Rebuild the Nation (TAFREN)

The Impact of The Tsunami On Local Governance Institutions And Services

In Sri Lanka, implementation responsibilities for people centered programmes at the local level are almost exclusively assigned to the District and Division Secretariats, the extensions of the line ministries through the decentralized structure, with limited additional financial and human resources provided to assist the Pradeshiya Sabhas and Urban/Municipal Councils, the lowest tier of local government. The Pradeshiya Sabhas and Urban/Municipal Councils and the Departments of Local Government at the Provincial level provide the rough estimates for the first needs/damages

assessments and subsequently carry out the detailed design and cost estimation for the repair work. However, they are not able to start construction since only very limited funding is made available to them. Their own revenues and limited grants/reimbursement of expenditures have, in the past, enabled them to engage in some development activities, and gradually expand the infrastructure base. However, as the Tsunami had destroyed many years of incremental development, it could not be rebuilt without a substantive increase in budgets, especially at a time when the tax base had been significantly reduced (Dasanayaka, 2006). Funding was provided on ad- hoc basis and earmarked for specific items. This was grossly insufficient leaving local governments to negotiate bilaterally with NGOs and donor agencies which made it impossible for them to effectively set priorities and manage implementation of recovery (ADB, 2005). Furthermore, lack of coordination between the district/divisional secretariats, provincial councils and local government resulted in local government playing a marginal role, leading to low effectiveness in the recovery process. In addition, given the political context in Sri Lanka, the fact that most of the local governments were controlled by the opposition may have had implications for the role that they came to play.

Undp Beyond the Recovery

UNDP, looking beyond the immediate recovery phase, developed a programme for Capacity Development for Recovery Programme (CADREP). The focus of the programme is on decentralized bodies, local governance and the Pradeshiya Sabhas. However, based on the policy decision of the government to focus on the decentralized bodies in the immediate recovery phase, the project would work with the local structures in the second phase. The intention was to provide funding through a proposed Local Recovery Fund to Pradeshiya Sabhas and Urban/Municipal Councils and a major effort is to be made to develop their capacity. UNDP is also supporting the Disaster-Relief Monitoring Unit of the National Human Rights Commission which has been conducting 'People's Consultations' in collaboration with local universities in an effort to increase participation in the recovery process.

Research Design and Methodology

The following instruments and approaches were used in the study:

- Survey of relevant literature, websites and publications to obtain secondary data and information,
- Interviews and discussion with relevant stakeholders conducting various rehabilitation and re-establishment programmers for Tsunami affected business organization
- Collection of data about the Tsunami affected business organization in Matara district from secondary data sources
- To carry out various analysis

Sample and Selection Criteria

The Tsunami affected industries in Matara district were identified from the survey report of IDB (2005). The industry that received high damage were classified: Hotel and tourism, Gem and Jewelry, Trading, Business and Services, Textile apparel and Leather Products ,Fish products, Wood and Wood products, Food, Beverage and Tobacco products, Paper and Paper products, Fabricated Metal products, Coir Based products, Lime manufacturing, and others.

The study included at least one business organization each form MSME of the above industry categories. The tsunami affected firms were categorized as MSMEs with the available data of asset value without land and buildings, annual turnover and number of employees or combination of those. The summary of the Matara district Tsunami affected industries are noted in Table 5. Tsunami affected business organizations are categorized into 9 classes. This study has covered at least one business organization each from micro, small and medium scale enterprises of the above industry categories. The sample size so designed is depicted in Table 6.

Table 5: Tsunami affected SME industries in Matara District

No	Industry	No of Business Units	%
1	Hotel and tourism	82	9.5
2	Trading, Business and Services	281	32.6
3	Textile apparel and Leather Products	65	7.5
4	Fish products	126	14.6
5	Wood and Wood products	53	6.2
6	Food, Beverage and Tobacco products	72	8.4
7	Paper and Paper products	45	5.2
8	Coir Based products	87	10.1
9	Other manufacturing Products not elsewhere specified	50	5.8
	Total	861	100

Source: IDB survey 2005

Table 6: Design Sample Selection

No	Industry	No of Business Units	Sample Selection		
			Micro	Small	Medium
1	Hotel and tourism	82			1
2	Trading, Business and Services	281	15	2	
3	Textile apparel and Leather Products	65			
4	Fish products	126	8		1
5	Wood and Wood products	53		2	
6	Food, Beverage and Tobacco products	72		2	
7	Paper and Paper products	45	4		
8	Coir Based products	87	4	3	
9	Other manufacturing Products not elsewhere specified	50	5	3	
	Total	**861**	**36**	**12**	**2**

Source: IDB survey 2005

Research Model and Frame Work

Reconstruction and Development Agency (RADA) conceptualizes the income recovery assistance under three broad types of instruments:

1. Social Protection that focuses on those affected by the tsunami who have lost their capacity to earn an income, or for whom there is no work. Especially vulnerable categories of the affected population include youth, widows, orphans, disabled and the elderly, need to be brought under the coverage of existing Government social assistance programmes.
2. Community Infrastructure Recovery: Income generation mechanisms through community and public works programmes that will generate temporary jobs for those who are able and willing to work while ensuring that infrastructure investments are sustainable and facilitate local economic recovery.
3. Support to revive and develop economic activities that move women and men out of dependency, to restore previously existing livelihoods and to improve upon them. This includes improving access to micro-finance and non-financial services such as business development and skills training that will enable people to develop and improve their livelihoods, including finding alternative livelihoods where appropriate and especially targeting vulnerable groups to improve their access to small business start-up grants.

Data Collection

Of the thirteen districts affected by Tsunami, eight districts were more severely affected. Literature reporting damages and losses resulting from similar natural disasters in Sri Lanka is just not there or is abysmally insignificant. Besides, no written records appear to have been kept of aids, wastages, or mechanisms for reaching the needy by government agencies. The authors had to rely largely on secondary data for this research study. For data collection, the research was focused on a search of literature through web sites, publications and discussions with relevant stakeholders conducting rehabilitation and re-establishment of Tsunami affected business organizations. Interviews were also conducted with some of the previous researchers (IPS Colombo, GTZ Colombo office), who studied about Tsunami affected industries, Tsunami relief programs, livelihood officers in divisional offices, NGO volunteers, various stakeholders, Sri Lankan and international aid agencies, who conducted a broader study on post-Tsunami rehabilitation. The UNDP Tsunami recovery unit (Colombo office) was visited to obtain details of their programs for the Tsunami-affected enterprises. Information was also obtained from Matara Red Cross branch office about the all stake holders involved in the SME recovery process. The data were collected from the district offices about Tsunami affected business organizations such as IDB, FCCISL, Matara district secretariat and divisional offices, the Institute of Policy studies, etc. Data were also taken from IDB's 2005 survey report on Tsunami affected SMEs. The IDB Matara district office and IDB Head office in Katubedda was visited to collect a beneficiary list to identify the Tsunami affected manufacturing and service enterprises. The Matara district recovery officer and divisional livelihood officers were met to obtain beneficiary lists on the Tsunami recovery projects. The project details and lists of active participants were also collected through these visits. Interviews were conducted with the entrepreneurs to identify damages, recovery, rehabilitation, re-establishment and difficulties faced in the aid distribution process.

Figure 1 shows the model developed for Disaster Recovery Experience.

Model for Recovery Experience

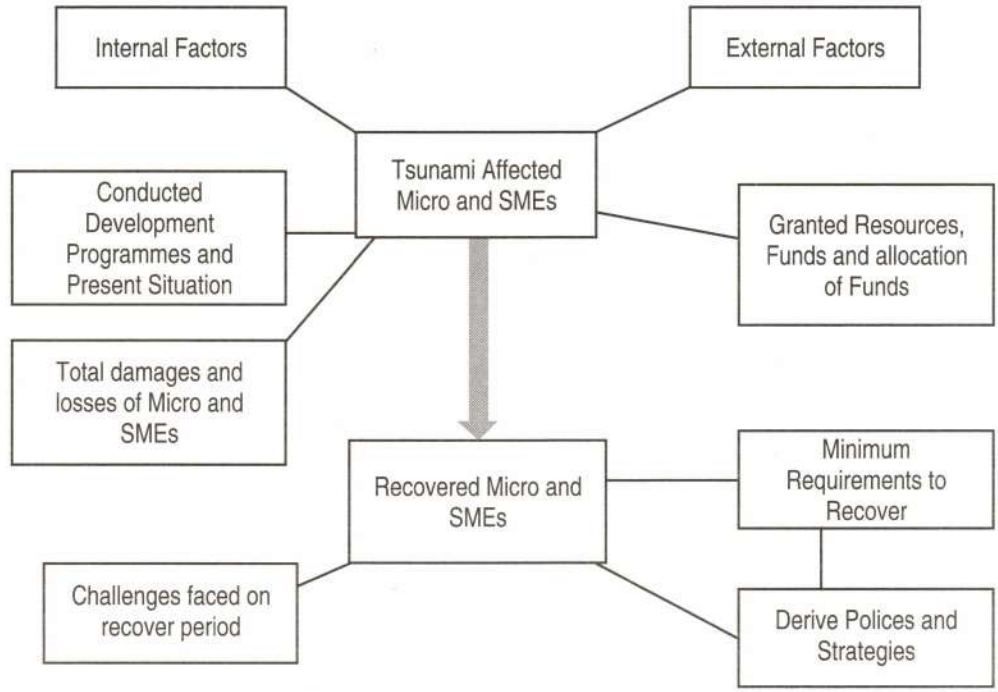


Fig 1: Model for Recovery Experience

Questionnaire Design

The questionnaire for this study was designed by addressing the followings aspects:

- Basic information such as name of the business, owners or contact person's name, postal address, GN division, qualification
- Details of the organization, such as business registration details, year of foundation, ownership of the business, number of employees and annual turnover
- Major damages and losses to the employees, land, buildings, plant and machinery, sales and income, inventory, and others using expert opinion. These damages and losses were categorized as completely destroyed, damaged, slightly damaged and not damaged
- The assistance providing organizations were identified as government agencies such as IDB, Export Development Board, etc. international NGOs such as UNDP, Red Cross, etc. local NGOs such as Seeds (Pte) Ltd, Seva Lanka Foundation, etc. Trade/Chamber associations such as FCCISL, companies, political parties, Family members, individual personnel and others. The degree of assistance was categorized as "very high", "average", "little" and "not received any thing" compared to the size of the organization.
- The nature of benefits received such as grants, loans and the values were identified separately under categories such as land, buildings, plant and machinery, market development programs, inventory and entire businesses using expert opinion.
- Business activity comparison on pre-Tsunami conditions was obtained from details such as sales revenues, number of employees, production/service volume, capital employed. This data were obtained separately for the pre-Tsunami condition and current condition.
- The problems and difficulties faced by the beneficiary organizations in the aid distribution process were identified as: delay in receiving benefits, political influence, lack of cooperation from the officers, procedural difficulties, giving bribes and others, etc. These problems of receiving benefits were categorized as "strongly agree", "agree", "disagree" and not "applicable".
- Telephonic interviews were conducted initially with ten samples as a pilot survey. The pilot survey data were analyzed and used to modify the questionnaire.

Data Analysis

The following section makes an analysis of the questionnaire response to arrive at findings of importance.

Analysis of The Main Damages And Losses for The Tsunami Affected Business Organizations

The following methods were deployed:

- Identified the damages and losses of Land, Building, Inventory, Plant and Machinery, Sales, Family members and employee of each business organizations and entered in to the data analysis
- The damages and losses are categorized as completely destroyed, partially damaged, slightly damaged and no damaged
- The number of business entrepreneurs responses on the above damages or losses were taken down at the interviews, against each category of damage was counted and summarized in a table
- The summary was analyzed using Likert scale
- Issue and loss were categorized and given simple weights of 3, 2, 1 and 0 for each category of issue and loss for scoring purposes
- The counts of business entrepreneurs response for fifty questionnaires were multiplied by the simple weights to calculate the total effect for each category of damage
- The each category of damages were added to calculate the total affect for each main damage or loss

Analysis of The Benefits Received From Aid Relief Agencies

The benefits received by the business organizations from Tsunami aid relief organizations were analyzed on the following

- The benefits received from various donors to the affected organizations were identified such as Government agencies, International NGO, Local NGO, Trade Associates ,Companies , Political Parties and Others
- The assistance were categorized as high, adequate, average ,little and not received any compared with the size of the organization
- The number of business entrepreneurs responses for assistance received from donors to the affected organizations were taken down at the interviews, against the each category of benefits received and counted and summarized in a table.
- The summary was analyzed using Likert scale
- These four categories were given simple weights of 3,2,1 and 0 for scoring purposes
- The business entrepreneurs responses counted, were multiplied by the simple weights and entered against the relevant category
- The score for each category of assistance received was added to calculate the total effect of assistance received from each Tsunami aid relief agency

Analysis of Nature of Benefits Received (Grant /Loan) and Values

The nature of benefits received (grant/loan) and values for the business organizations were analyzed on the following methods

- The nature of benefits received such as grants, loans and the values were identified separately for the categories such as land, Buildings, plant and machinery, market development programms, inventory and entire business and entered in the relevant row of spreadsheet for data analysis
- The row data values of the question "under the section of list the nature of benefits received in value in '000'" of the questionnaire were entered in each column under the questionnaire code
- The mean value of the benefits received for the above categories were calculated from the details that were obtained from fifty interviews for the research

Analysis of Business Activity Comparison to Pre- Tsunami Condition

The overall business activities were compared with the pre Tsunami condition and the present condition of the organizations and analyzed on the following methods

- The details were on obtained from the question under the "what is your business activities compare to pre Tsunami conditions" on the questionnaire for the business activities such as sales revenue, number of employees, production and service volume, capital employed for the pre Tsunami condition and present condition
- Most of the entrepreneurs were reluctant to give these details such as sales turnover, sales volume and capital employed. However, this research was calculated on the percentage of increase or decrees of business activities separately for one business organization using the available row date of the question under "What is your business activities compare to Pre-Tsunami conditions" of the questionnaire
- The business activities were entered in the

relevant row of the spreadsheet for data analysis

- The percentage of increase or decrease of values were entered in the relevant column of the spreadsheet under the each questionnaire code
- The individual percentage of increase or decrease of business activities from the available data
- Overall value of increase or decrease of business activity was calculated by calculating the mean value of individual percentage of increase or decrease of business from the fifty business organizations interviewed

Analysis of Problems and Difficulties Faced by the Beneficiary Organizations

The problems and difficulties faced by the beneficiary organizations in aid distribution process were analyzed on the following methods

- The problems and difficulties were identified as delay in receiving benefits, political influences, lack of cooperation from the offices. Procedural difficulties and giving bribes etc and entered in the relevant row for data analysis
- The problems and difficulties are categorized as strongly agree, agree, disagree and not applicable, to understand the seriousness of the problem
- The number of business entrepreneurs responses to the above problems and difficulties that were taken down at the interviews, against the each category of problems and difficulties was counted
- The summary was analyzed using Likert scale
- These four categories of the problems of receiving benefits were given simple weights of 3,2,1 and 0 for scoring purposes
- The total count of business entrepreneurs response was multiplied with the relevant weight
- The score for answers of each problems and difficulties faced was added to calculate the effect of each problem

Research Findings

The collected data was analyzed and the following major findings were noted.

Damages and Losses Occurred to Industries

78 percent of business plants, machineries 70 percent of inventories were completely destroyed and 14 percent of plants, machineries and 24 percentage of inventory were identified as partially damaged. This survey further identified that 56 percent of sales income had been completely destroyed. The damage to the employees were minimal for the business organizations since only the 10 percent of business's employees died, 8 percent reported heavy casualty rates and 66 percent had no losses.

The main loss was damage to the Sales and Inventory and the value was 98 percent of the maximum possible score. The second main damage for the Tsunami affected business organizations was loss and damage to the plant and machinery and the value was 96 percent of maximum possible score. Most of the buildings of the organizations were also damaged and the value was 80 percent of maximum possible score. Even though Tsunami caused the destruction of the livelihood of the people in the coastal belt, this research confirmed that the damage to the employees was minimal in the business organizations, compared to other damages. Also, the damage to the land was not significant compared to other damages to the business enterprises. Table 7 depicts the damage.

Table 7. Entrepreneurs' responses for main damages incurred

Issues and Losses	Completely Destroyed		Partially Damaged		Slightly Damaged		No Damage		Total
	No	%	No	%	No	%	No	%	
Land	3	6	5	10	14	28	28	56	50
Building	15	30	18	36	7	14	10	20	50
Employees	4	8	5	10	8	16	33	66	50
Plant and Machinery	39	78	7	14	2	4	2	4	50
Sales	28	56	20	40	1	2	1	2	50
Inventory	35	70	12	24	2	4	1	2	50
Family Members	2	4	2	4	1	2	45	90	50

Source: Structured questionnaire survey

Assistance Received From Various Bodies

Business owners' responses for the degree of various types of assistance received from various parties are summarized in Table 8, which projects that 80 percent of business organizations did not receive support from the government agencies; 90 percent of business organizations had not received recovery assistance from International NGOs, 82 percent of business organizations had not received recovery assistance individually from local NGOs, as well as political parties. 70 percent of business organizations stated that they did not receive support from companies, 76 percent of entrepreneurs did not receive support from Trade and Chamber Associations and 70 percent of business organizations did not receive support from individual personnel. Overall, the data show that the affected organizations were overwhelmingly not satisfied with the support, assistance or help from relief organizations.

Analysis of Nature of Benefits Received (Grants and Loan Value)

Type of support and benefits (grants and loans) received and values Table 9 shows total grants received, average grants received and percentage of average grants received for each category of business requirements. These grants were separately identified for the categories of land, buildings, plant and machinery, inventory and entire business. The highest percentage of grants received for the entire business development was 42.8 percent of average grants. 29.1 percent of average grant was received for the plant and machinery. The values of loans received by each category of business requirements are shown in Table 10.

Business Comparison to Pre-Tsunami Situation:

The mean values of current recovery level of business activities for 50 organizations surveyed are given in Table 11. The average percentage of current business level compared to pre-Tsunami condition is 59.1 percent. That clearly shows the business organizations had recovered only 59.1 percent of business level from the pre-Tsunami condition even after nearly ten years since the Tsunami disaster.

Problems and Difficulties Faced by the Beneficiary Organizations:

Table 12 shows responses received about problems while receiving benefits for recovery. The main

Table 8: Degree of response on benefits received

Parties	High		Adequate		Average		Little		No	
	No	%	No	%	No	%	No	%	No	%
Government Agencies	0	0	2	4	6	12	2	4	40	80
International NGO	0	0	1	2	4	8	0	0	45	90
Local NGO	0	0	2	4	5	10	2	4	41	82
Trade Associates	0	0	1	2	6	12	5	10	38	76
Companies	1	2	5	10	5	10	4	8	35	70
Political Parties	1	2	1	2	1	2	6	12	41	82
Other	1	2	2	4	10	20	2	4	35	70

Source: Structured questionnaire survey

Table 9: Value of total grants received by affected business organizations

Category	Total Grants (Rs'000)	Average Grants per Industry (Rs'000)	% of average grants
Land	0	0	0.0
Building	470	9.4	15.9
Plant & Machinery	862	17.24	29.1
Inventory	361	7.22	12.2
Business Development	1265	25.3	42.8
Total	2958	59.16	100

Source: Structured questionnaire survey

Table 10 : Total loans received for the Tsunami affected business organizations

Category	Total weights	Average loan per Organization	% of average load
Land	0	0	0.0
Building	200	4	2.2
Plant & Machinery	870	17.4	9.5
Business Development	8085	161.7	88.3
Total	9155	183.1	100

Source: Structured questionnaire survey

Table 1: Current business recovery status compared to pre-Tsunami situation

Business Activities	Average % of business level compared to pre-Tsunami condition
Sales Revenue	62.9
Number of Employees	60.7
Production Service volume	55.6
Capital Employed	57.3
Percentage of Average	59.1

Source: Structured questionnaire survey

Table 12: Problems of receiving benefits and their percentage

Item	Strongly agree		Agree		Disagree		Not Acceptable	
	No	%	No	%	No	%	No	%
Delay in Receiving Benefits	15	30	10	20	10	20	15	30
Political Influence	2	4	4	8	22	44	22	44
Lack of Cooperation form the Officers	3	6	6	12	20	40	21	42
Procedural Difficulties	6	12	7	14	18	36	19	38
Have to give Bribes	2	4	4	8	28	56	16	32

Source: Structured questionnaire survey

reasons cited were delays in receiving promised benefits, political influences in distributing of benefits, lack of cooperation from the government officers, procedural difficulties and asking bribes, etc

As per the survey findings, 30 percent of the respondents "strongly agreed", while a further 20 percent "agreed" to delays in receiving promised benefits as a major issue faced. 12 percent of businesses "strongly agreed" and 14 percent "agreed" that procedural difficulties were the next major issues faced while getting assistance. However, nearly 29 percent of business firms did not answer this question since they did not receive any benefits from Tsunami aid relief agencies and a few of them received support from parties personally known to them. Furthermore, this research confirmed that most of the business firms were not in a position to give bribes to acquire some benefits.

Conclusions

In large well-publicized disasters affecting low-income countries, the flow of relief and recovery aid is often very large. Yet the findings show that the affected firms have not yet fully recovered, the main reasons being the difference of specialist donation for business recovery, loan facilities, lack of coordination and general inefficiencies in aid management. The aid flow to MSMEs was small and not well correlated with reported damage. Major findings of the survey are mentioned as under:

i. The majority of the funds used to pay for recovery came from personal savings or from loans or gifts from family members and friends. Recovery aid and formal loans were a less

important source of finance for recovery. We find this surprising because the MSMEs are generally considered to have high capital constraints. Nonetheless, despite this partial recovery of capital stock, tsunami-affected MSMEs still have lower profits and capital stock ten years after the tsunami than similar firms not damaged by the tsunami, suggesting the recovery process has been slower than often assumed.

ii. 59.1 percent of MSMEs have recovered to some extent, however, much more needs to be achieved to return to pre-tsunami conditions. The reason lies that most of the aid distributors gave initially to micro organizations as the cost of helping them individually is lower than the cost of helping SMEs. Thus there was uneven recovery for the sector as a whole.

iii. Tsunami 2004 brought severe devastation to the lives of the people in the coastal belt. The main damages were identified as damages to plant and machineries (92 percent) and inventories (94 percent). But priority assistance was not received to this category resulting in dissatisfaction and delays in recovery.

iv. Around 40 percent business organizations did not receive any form of assistance to recover business. The major reasons identified are: staying in the buffer zone; inadequacy of property as security to obtain Tsunami loans; inadequacy of lobbying by sufferers to present their case to relief agencies; pending dues against pre-Tsunami loans and procedural difficulties.

v. The Government, International non-governmental organizations (INGOs), local non-governmental organization (NGOs) and other organizations appealed to donors and received colossal amount of donations. However there is no evidence that enormous the amounts of donation reached the MSME sector in recovery process.

vi. There was a huge capacity gap with the tsunami recovery attempts. It is evident that the government had ambitious plans and high expectations for speedy recovery but with less success rate. Among other factors, various skills shortages such as coordination and planning skills have been identified as main capacity gaps which need immediate attention.

vii. Further, the aid was biased towards those who had access to social networks such as community-based organizations and political influences. Most donors approached local community based organizations in order to identify potential beneficiaries due to a lack of local-level systematic information about pre-Tsunami asset ownership. Even though the major donor agencies and political party's workers were from Sinhalese community the minority entrepreneurs (Muslims entrepreneurs) have not faced any ethnic issues in recovery process.

Recommendations

Resilience of livelihoods is intimately related to the resilience of MSMEs and their ability to promote a healthy local economy after disasters (Pro Vention Consortium, 2009). The close relationship between MSMEs and their communities through employment and local economic dynamism is particularly important for livelihood recovery of vulnerable communities. The following areas need the first priorities when it comes to rehabilitation:

Improving access to financing: Improving access to financing means enhancing the degree to which financial services become available to all, through easy and affordable means. The ability of MSMEs to grow and strengthen their competitiveness over time largely depends on their ability to invest in restructuring, innovation, improvement and diversification. MSMEs are faced with constraints caused by many factors, such as financial sector ineffectiveness, lack of information on financing availability, lack of collaterals, poor property rights laws and. lack of financial products. Policymakers need to address these issues to make financial resources accessible to small entrepreneurs.

Developing MSMEs business services:

Poor business development (and support) services or their relatively high cost has disadvantaged MSMEs' efforts in improving their competitiveness as service providers, particularly lawyers, business consultants and technical consultants do not provide cost effective management solutions

required for MSMEs. Lack of information and accessibility to utilize existing services by MSMEs has also resulted in weak demand for such facilities.

Supporting SME business infrastructure:

Quality business infrastructure facilitates the production of goods and services and enhances competitiveness. MSME specific infrastructure is still insufficient, particularly in the areas of skills development and in providing physical facilities, such as training institutions and MSME parks. Supporting MSME targeted infrastructure would enhance the productivity of MSMEs and improve their competitiveness in international markets.

Developing and Adapting Technology

One of the critical factors influencing the competitiveness of all enterprises is technological capability for quality products and services. MSMEs in developing countries very often produce products and services of moderate quality mostly due to the adaptation of outdated technologies and this has resulted in rejection of their products in competitive markets at both domestic and international levels. In recent years the situation has worsened, because SMEs in developing countries have to survive the intense competition of globalization.

Enabling policy and regulatory environment: A transparent policy and regulatory environment ensures enterprise facilitation for the establishment, operation, promulgation, access to resources and markets and exit. To a greater extent the sustainability of policy and regulations – such as enterprise registration, corporate governance, fiscal incentives, anti-corruption and labor laws – relies on efficient administrative framework.

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