

**Social Capital as a way out of poverty: *the case of
small scale marine fishery in Hambantota district,
Southern Sri Lanka.***

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ABSTRACT

Simply, Social capital is a concept that explains the extend and nature of relationships people have with (invest on) others – relatives, family friends, neighborers in own community members and members of other communities, or networks, relationships with various services, institutions and systems.

As in the other types of investments, people expect returns on investments of social capital.

Currently, the concept has received wider and growing attention on its role on household well-being which leads them to come out from poverty.

Basically it is accepted that disseminate information, reduces opportunistic behavior (due to higher compliance to their group (social) or network), and facilitates collective decision-making. Trust and reciprocity play a bigger role in social relationships to visualize them as the mode of social capital.

In Sri Lanka, poverty has been, probably the most burning issue of the country. Percentage of the population living below the national poverty line for the whole country is 15.2 percent (head count ratio). And population below US\$ 2 a day (1990-2005) is 41.6 percent.

Especially, Hambantota district is characterized by the relatively higher poverty of people. The percentage poor household in the district are considered as poor.

By nature, most of the small scale fisherman in Sri Lanka are poor. Their monthly income fluctuates around the subsistent level. At idiosyncratic or co-variate shocks their status of living

world temporally or permanently be changed; adverse in to poverty. In Hambantota district, especially in study locations, subsistent nature of living, serve resource exploitation due to unregulated access to the recourse base, use of destructive gears, exclusion from facilities and weaker community networks have mainly been identified as major barriers for way of poverty.

Better assets ownership has been an effective solution for people to better deal with risks and uncertainties involved with fisheries. These assets are mainly the form of physical (land, house, Jewelleries, vehicles, Household equipment, and etc.) financial (savings), human (education, health), and social. This study focuses on how small scale fisheries in three fishing villages; namely Godawaya, Kalametiya and Rekawa of Hambantota district, invest on social capital and in what extent they enjoy the returns to come out from poverty.

Basically the findings of the study, say that, in the case of small scale fisheries in areas, social capital have a positive increasing effect on household expenditure (welfare) in Kalametiya and Godawaya, richest people in the sense of social capital show higher household welfare level while in Rekawa poorest people in terms of social capital are the richest in their household welfare. This scenario, indicates that social capital helps people to come out from poverty.

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(1) Introduction:

1.1 Sri Lanka:

Sri Lanka is island state of 65,510km² locates in the Indian ocean, lying within the latitude 6⁰-10⁰ N and latitude 70⁰-82⁰ E. As it is a tropical country close the equator, the mean temperature ranges from 80-82⁰ F. Two periods of monsoonal rains, namely the south-west monsoon and the North-east monsoon, cause a bimodal pattern which in turn determines the major agricultural and fishing seasons. The south-west monsoon prevails during May to September, and this is known as the Yala season in Agriculture. Rough seas during May to September hamper operation of traditional crafts in the southern and western fishing grounds and this is called the Warakan (off-season) in traditional fisheries. The same is true for the traditional fisheries in the Northern and Eastern areas where the North-east monsoon prevails during November to March.

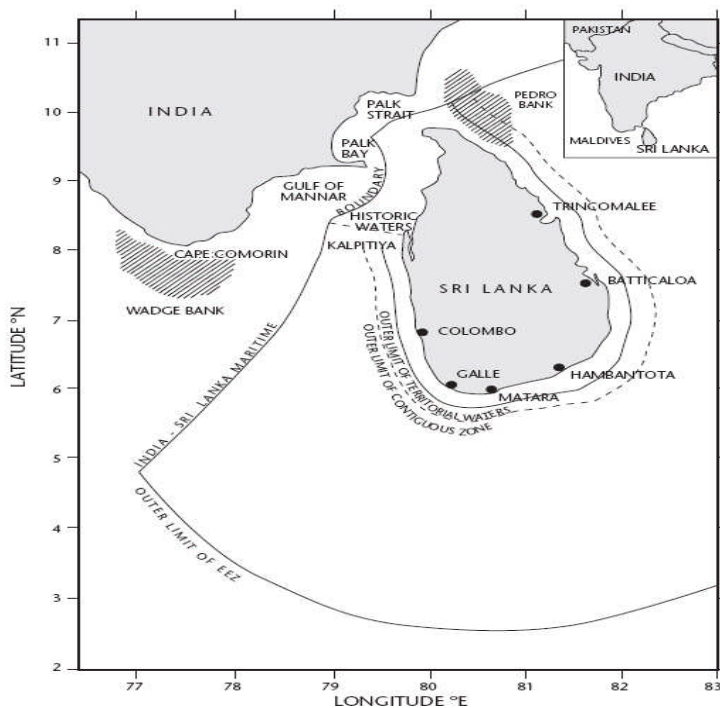


Fig. 1. Map of Sri Lanka's marine waters.

Source: Ministry of Fisheries and Aquatic Resources Development, Sri Lanka.

Figure: 1 shows the relative location of Sri Lanka in the Indian Ocean and the extent of its maritime zones.

Sri Lanka has a coast line of 1760 km and exclusive economic zone (EEZ) of 36 000 km² ocean area which extends up to 200 mile. The marine area from the shore to the edge of the continental shelf is referred to as coastal waters. The continental shelf averages 15 km wide and 20 - 65 m in depth. The narrowest part is at Kalpitiya, where the width is only 2.8 km. The total area of the continental shelf is about 26 000 km², 11% of the EEZ.

In the context of poverty in Sri Lanka, population below 1 US\$ a day during the period of 1990 – 2005 is 5.6 percent. And population below US\$ 2 a day (1990 – 2005) is 41.6 percent. Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. For the duration of 2006 – 2007, the Gini index value for Sri Lanka was 0.49.

1.2 Hambantota District:

The Hambantota District of Sri Lanka lies easterly part of the southern Sri Lanka. District falls within the Dry Zone of Sri Lanka. The area receives the mean annual rainfall of 1 250 mm.

Out of the district's total human population of 525 200; 89 percent live in rural areas. The lowest population density of the southern province is shown by the Hambantota district which is 210 / km² (Central Bank, 2002).

1.2.1 Poverty status in Hambantota:

'Poverty is the shortage of common things such as food, clothing, shelter and safe drinking water, all of which determine our quality of life. It may also include the lack of access to

opportunities such as education and employment which aid the escape from poverty and/or allow one to enjoy the respect of fellow citizens' (<http://en.wikipedia.org/wiki/Poverty>)

Hambantota District is also characterised by the general poverty of the people. According to Department of Census and Statistics (2006/07), percentage of poor household in Hambantota district is 10.5 and comparatively that of for the country as a whole is 12.6. The same for the rural Sri Lanka is 13.1 percent. According to the same source, 15 000 households in Hambantota district are considered as poor while of the entire country 571 000 households pertain to said category.

The mean monthly per capita household income of poor household is Rs.10819 while that of for the whole country is Rs.11534. Monthly household per capita expenditure for poor household in Hambantota district is Rs.8725 while the same is for the entire country is Rs.8956 (Department of Census and Statistics,2006/07). Associating the same data source the Head Count Poverty Ratio (Head Count Index) – national poverty rate – the percentage of the population living below the national poverty line; for the whole country is 15.2 percent and it is for Hambantota district is 12.7 percent.The general poverty of the population can also be understood in terms of the number of the households receiving food stamps/Samurdhi benefits as a percentage of total households. The Hambantota District has recorded the highest percentage of households (65 %) receiving food stamps/*Samurdhi* benefits (Department of Census and Statistics, 2006/07)

1.2.2 Marine fisheries in Hambantota district:

In relation to the district's contribution to the total national fish landing; Hambantota is ranked fourth. In 2003, the total annual landing of the district was 21,700 MT, accounting for 8.52 percent of country's total fish landings of 254,680 MT (MFARD, 2005).

Based on the Census of Marine Fisheries in 1998 carried out by the Department of Fisheries & Aquatic Resources, it can be said that a great majority of fishers (3 269 from 4 843); i.e. 67.5

percent come from fishing families. And it also found that fishing was the sole employment for 78.3 percent of fishers'' (3 791).

Table: (1) Fishing Villages and Fisher Population in the Hambantota District

Fisheries Inspector (FI) Area	Villages	Fishing Households	Fishing Population	Mean Household Size	Fishers	Fishers per Household
<i>Kudawella</i>	5	990	4710	4.76	1188	1.20
<i>Mawella</i>	5	336	1764	5.25	420	1.25
<i>Unakuruwa</i>	4	240	1134	4.73	264	1.10
<i>Tangalle</i>	10	360	1704	4.73	408	1.13
<i>Rekawa</i>	6	228	972	4.85	276	1.25
<i>Kahandamodera</i>	4	264	1290	4.89	330	1.25
<i>Kalametiya</i>	11	408	1968	4.82	456	1.12
<i>Hambantota West</i>	10	420	2246	5.35	493	1.17
<i>Hambantota East</i>	12	432	2268	5.25	588	1.36
<i>Kirinda</i>	13	390	1788	4.58	420	1.08
TOTAL	79	4068	19844	4.88	4843*	1.19

Source: Department of Fisheries & Aquatic Resources (1998): Census of Marine Fisheries.

Table-2 presents the Fishery Inspector areas and certain demographic features of the district.

Figures refer the three sample areas, Rekawa, Kalametiya and Godawaya which comes in

Hambantota West FI division have been bold.

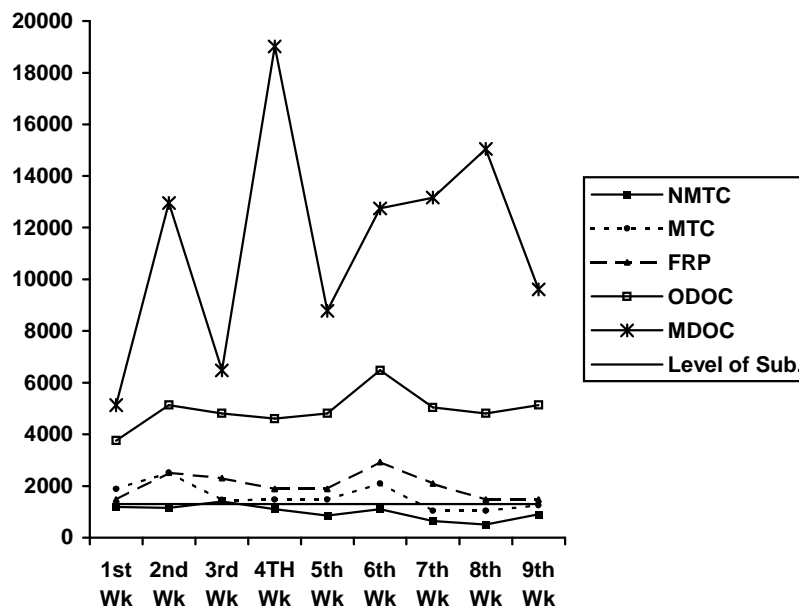


Figure: 2. Average weekly fishing incomes of crafts owners – Kudawella fishing village of Hambantota District (Aug – Sept. 1995)¹

NMTC = non mechanised traditional crafts; MTC = mechanised traditional crafts; FRP = small mechanised crafts made of Fibre Reinforced Plastic; ODOC = One Day Operating Crafts with inboard engine; MDOC = Multi-Day Operating Crafts; Level of sub. = Level of Subsistence (income)

Based on the findings of the study done by Amarasinghe et al (2005), Figure: 2 illustrates how average weekly fishing income of craft owners in Kudawella fishing villege of Hambantota district vary and it further indicates that all small scale fishers operate around the subsistent level embodying that they may be very sensitive to shocks which cause them pushing below the subsistent level.

¹ Amarasinghe O., W.A.G.Wanasinghe and S.P.M.Jayantha (2005) “Risks and |Uncertainties in Fisheries and their management: Fisheries Insurance”, in O. Amarasinghe (editor), *Modernisation and Change in marine small-scale fisheries of southern Sri Lanka*, Navamaga Printers, 2005

1.2.3 Craft-gear combinations used in Hambantota district:

1.2.3.1 Traditional craft -gear combinations:

A. Beach Seine Craft:

These are long crafts with lengths reaching up to 12m. in the Hambantota District beachseine crafts are large dug outs with outrigger.

B. The Outrigger Canoe (oruwa):

The outrigger canoe (one of the Non-Mechanised Traditional Crafts) is a dugout in which the hull is raised with side stakes. The two ends of the hull are sharply raised to give its characteristic shape

1.2.3.2 Modern craft-gear combinations:

The Mechanised Traditional Craft: This is simply any traditional craft powered by an outboard engine.

The 17-23 Feet FRP (Fibre Reinforced Plastic) Boats: These crafts are undecked open fibreglass boats propelled by outboard engines (kerosene or diesel).

Table: (2) Fishing Crafts in operation in Hambantota District

Type of Boat		Active Fishing Boats	
		Number	Percentage
<i>Traditional Crafts</i>	<i>Paru</i>	0	0.0
	<i>Oru</i>	872	53.3
	<i>Vallam</i>	18	1.1
	<i>Theppam</i>	0	0.0
<i>Mechanised Crafts</i>	<i>17-23 ft. FRP</i>	499	30.5
	<i>3.5 ton with IBM</i>	144	8.8
	<i>Multi-day Boat</i>	102	6.3
TOTAL		1635	100

Source: Department of Fisheries & Aquatic Resources (1998): Census of Marine Fisheries.

Table: (2) shows the types and number of active fishing boats operate in Hambantota district in 1998. It clearly exhibits that still traditional crafts play the major role in Hambantota district fisheries. In addition, it displays that 84 percent of the crafts are of the category of small scale in the context of Sri Lankan fisheries.

1.3 Why is social capital important?

Grootaert (undated) understands that there is a growing recognition that differences in economic outcomes, whether at the level of the individual or household or at the level of the state, cannot be explained fully by differences in “traditional” inputs such as labor, land, and physical capital.

Thorpe et al (2007) also recognize that fisher poverty, especially at the level of the local community, cannot be captured explicitly in monetary income terms. In that sense they notice even the economic criteria (catches, number of livestock, standard of housing, degree of self-sufficiency/nutritional supply, landholding and the security of property rights, capital investments, household indebtedness, etc.) generally predominate – reference is also made to social factors (literacy levels, access to education, health and other basic household needs – such as clean water, etc.) as well as to social manifestations of poverty (power relations and the political space for participation).

“Social capital” is a concept that describes the extent and nature of relationships people have with others, the relationships people have with their communities, and relationships between people and various services, institutions and systems. It is also a concept that can be used to understand the linkages between communities or institutions. (Stone, 2003)

According to Stone (2003) now the concept of social capital has been directly linked to broader concepts such as social cohesion, democracy, economic wellbeing and sustainability. And he describes that most recently; the concept has been adopted and developed in various capacity building and community development strategies, both nationally and internationally.

In addition, Stone (2003) finds that social capital can be understood as a resource for collective action, which may lead to a broad range of outcomes, of varying social scale.

And Grootaert (undated) says that growing attention is given to the role of “social capital” in affecting the well-being of households and the level of development of communities and nations. In the same study, Grootaert finds that social capital is an input in a household’s or a nation’s production function has major implications for development policy and project design. Therefore he concludes that to enjoy the full benefits the acquisition of human capital and the establishment of a physical infrastructure needs to be complemented by institutional development.

Grootaert (undated) realizes that at the macro level, social capital refers institutions such as government, the rule of law, civil and political liberties, etc.) And at the micro and meso levels, social capital refers to the networks and norms that govern interactions among individuals, households and communities. He further reviews that such networks are usually (but not necessarily) form through the creation of local associations or local institutions.

According to Grootaert, (undated) social capital is hypothesized to have several long-term benefits, such as better access to credit and a resulting better ability to smoothen out income fluctuations by borrowing and/or accumulating assets.

Based on Grootaert et al (undated) social capital helps to disseminate information, reduces opportunistic behavior, and facilitates collective decision-making. They further illustrate the effectiveness with which structural social capital, in the form of the associations and networks, fulfills this role depends upon many aspects of these groups, reflecting their structure, their membership, and the way they function.

According to Sobel (2002), social capital describes circumstances in which individuals can use membership in groups and networks to secure benefits.

In the process of understanding the applications of the concept; social capital Stone (2003) observes that there is increasing awareness among the community sector and service providers about their capacity to facilitate social capital among “clients”, by ensuring that the practices of service delivery are “social capital friendly”. This means providing services in a way which not only meets immediate client and family needs, but is also participatory, respectful, inclusive, and which might facilitate bonds, bridges and linkages between clients and other members of the community, which are sustainable beyond the bounds of the service itself.

Dercon (2001), based on his knowledge and experience on the concept social capital and its applications says that leveraging social capital is an important risk management strategy during times of economic distress (e.g. losing a job, enduring crop failure, suffering a prolonged illness), and the idea is further supported by the view that divided societies will experience greater difficulty managing economic shocks.

Grootaert (undated) tries to identify social capital as one among several classes of assets available to the household to make its decisions. And he also agrees with the idea that social

capital is combined with human capital, physical capital and the ownership of land to make productive decisions.

Grootaert (undated) based on his study on Social capital, household welfare and poverty in Indonesia, recommends that investments in local social capital deserve to be part of poverty alleviation programs since the returns to investment in social capital are larger for the poor than for others.

1.4 Why are fishers always poor?

Béné et al (2007) realize that a large majority of small-scale fishers and fish workers are rural dwellers. As a consequence, geographical isolation and low or poor provision of public infrastructure and services (lack of roads, hospitals, market facilities, etc.) have been greater challenges for them. Béné et al (2007) further explain that small-scale fishers living in remote temporary fishing camps are very likely to be poor, not because of their income level, which can be substantial and sometimes higher than for farmers, but because of their lack of access to basic public services such as health, education and water. It is easy to understand that such fishers could live well above the one dollar per day poverty line, but still face destitute living conditions due to their geographic isolation (Béné et al, 2007).

In addition, the concept, 'vulnerability' has been a key concept in the poverty literature and Thorpe et al (2007) recognize that vulnerability may be exacerbated by a series of further factors, including: the high risk nature of fishing activities, the geographic remoteness of many communities, their low socio-political status, their insecure access to fish stocks (and the tendency towards the overfishing of same, given the open or quasi-open access status of many small-scale fisheries), their responsiveness to technical change, and the (generally unfavourable)

nature of their local organizational environment (spatially dispersed households, often located in remote areas, with the temporary absenteeism of key household members as they migrate to fish/seek alternative sources of income). As well they highlight that demographic factors such as (worker/dependent ratios within the household, age of the household heads), although not particular to fisher households, are also likely to influence the probability of household marginalization.

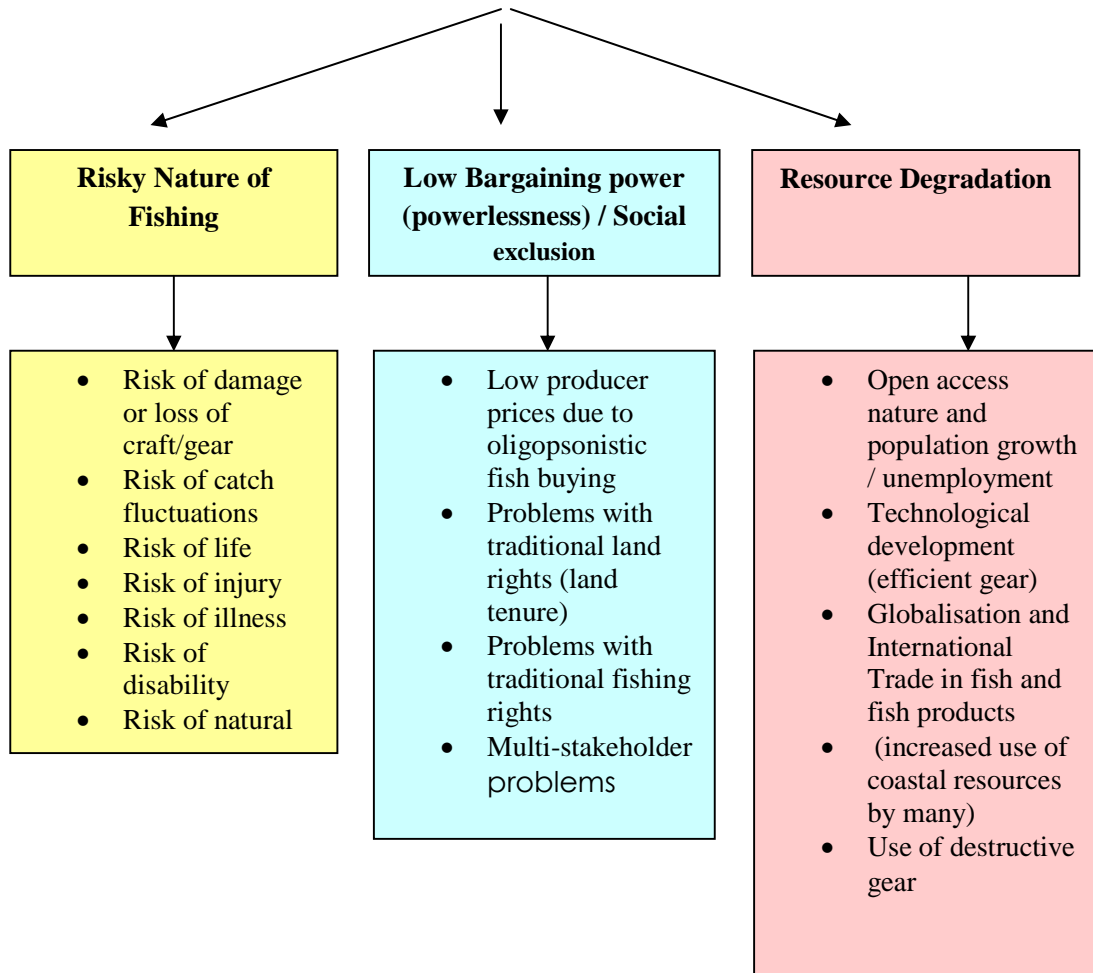
1.5 The Problem Statement:

The poverty in small scale fisheries is often attributed to high vulnerability of fishers to shocks and their inadequate capacity to cope with these shocks (lower resilience), making their livelihoods non-sustainable.

Fishers adopt a set of strategies individually and collectively to cope with such risks and uncertainties. Fishers' capacity to cope with and recover from shocks would determine whether they would succeed in guaranteeing sustainable livelihoods. It has been identified that one way of increasing fishers' capacity for resilience is to build up social capital.

The study aims at understanding how fishers use diverse individual and group strategies in order not to go below the poverty line and to maintain the required household welfare level. The study tries to identify whether social capital is an effective input in the household welfare and it really helps the poor to improve their livelihoods.

Fishing Problems



INCREASED VULNERABILITY AND THE NEED TO COPE WITH THEM

Figure 3. Classification of fishing problems (based on information from Hambantota)

Figure: (3) illustrates the sources of risks and existing fishing problems which make the fishers vulnerable to be poor and the need of being equipped with proper coping strategies.

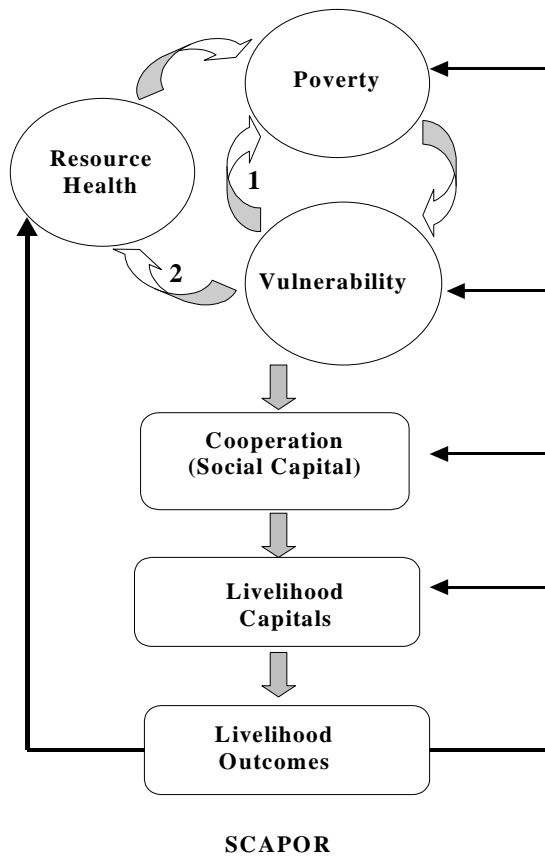


Figure: 4 SCAPA: Social Capital Approach to Poverty Alleviation

Source: Social Capital as a resource to alleviate poverty in fisheries: the role of fisheries cooperatives in small scale fishing communities of southern Sri Lanka by Oscar Amarasinghe, Svein Jentoft and Maarten Bavinck (unpublished).

Simply, Figure: (4) supports the perception that Social Capital is one of the coping mechanisms available for fishers to create or to develop livelihood.

It is widely evident that, in small scale fisheries, there are limited opportunities for income source diversification and it leads to least chance for fishers to smoothen inter-temporal variations of income due to seasonal fluctuations of catches.

1.5.1 Risky Nature of Fishing:

Lack of a proper landing centres at Rekawa East, Welipatanwila (and Kalametitiya to a lesser extent), etc. have been a sources of several hardships to the resource users. During rough weather, crafts can not be operated, which causes loss of fishing days. A number of incidences of craft damage have also been reported. The need for a breakwater or appropriate landing facility is underline need of this area. Due to the absence of a proper landing facility, the Rekawa fishers are unable to adopt mechanised fishing.

Damage to gear may be caused by the entanglement of nets in rocky outgrowths and by ships which sail across.

1.5.2 Small scale fishery suffers from low level of income:

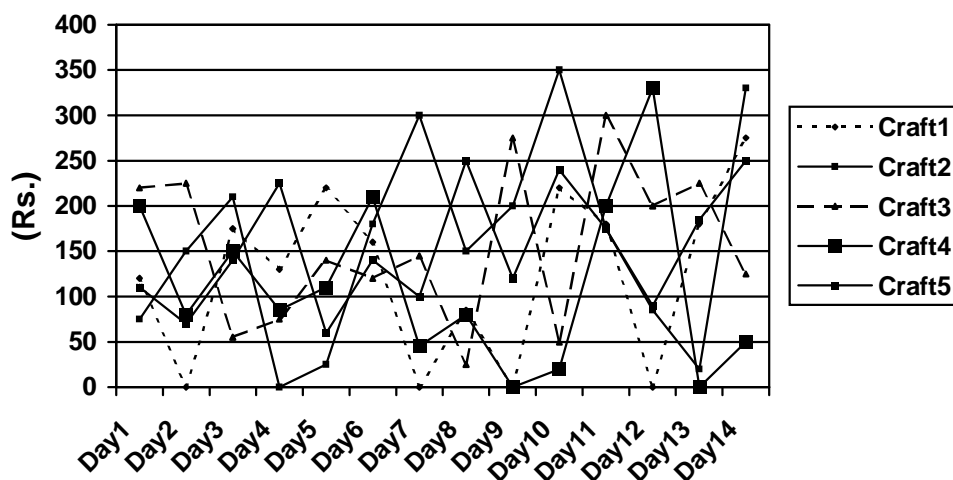


Figure: (5) Daily fishing incomes of five owners of traditional crafts (over a 2 week period)²

² Amarasinghe O., W.A.G.Wanasinghe and S.P.M.Jayantha (2005) "Risks and Uncertainties in Fisheries and their management: Fisheries Insurance", in O. Amarasinghe (editor), Modernisation and Change in marine small-scale fisheries of southern Sri Lanka, Navamaga Printers, 2005

Based on the study done by Amarasinghe et al (2005), Figure: (5) presents the pattern of daily income variation of the owners of traditional crafts ranges between Rs. 000.00 to Rs.350.00.

Obviously, it is not enough to cater the daily needs of a household.

1.5.3 Operation of foreign vessels in near coastal waters:

There are frequent complains about the fishing operations carried out by the foreign vessels and deep sea vessels which creates obvious resource decline which negatively affect on small scale fishers' livelihood making them more vulnerable to poverty.

1.5.4 Not receiving a reasonable price for fish (due to collusion by middlemen):

Fishers, who struggle with the problem of 'imperfect' credit and insurance markets, usually borrow money from fish merchants promising them to hand over all future catches (which is known as 'boat tying' by merchants). This reduces their bargaining power.

1.5.5 Use of Destructive Gears:

Coral Mining:

Coral mining is a banned practice in Sri Lanka. Illegal, coral mining is still being carried out in the Rekawa East area. So far it is clear that no effective action against this practice has so far been taken. Coral mining generates several negative environmental externalities. Beach erosion leading to loss of land and reduction in the landings of reef fish have been identified as major threats from coral mining in these areas which affect not only the sustainability of resource but would generate considerable social costs.

Dynamiting:

During the field study I could understand that several destructive fishing techniques practiced in the focused areas. Use of dynamites is reported especially in Rekawa. Dynamiting is completely done by the outsiders come to Rekawa area. Due to the presence of loop holes in the existing law and higher political influence it has been very difficult for Fisheries Inspectors to control the use of dynamites; which leads to awful resource degradation.

Bottom Set Gill Nets:

Several fishermen in Kalametiya and certain other nearby villages use Bottom Set Lobster Nets (4 ½ “ mesh size) destroys marine life to a considerable extent.

‘Light fishing’ technique:

Mostly the small scale fishermen of the area; especially in Godawaya complain that this technique is destructive and leads to rapid resource depletion.

1.5.6 Prevalence of weaker community network:

Since most of the time being away from the location of residence; fishers miss the chance of developing wider and stronger social links compare to the others such as farmers, and etc. And, poor social status prevents them to develop close interaction with other occupational and social groups.

Grootaert (undated) argues that while the literature on social capital has amply demonstrated the importance of social capital in the context of development projects and the provision of various services, it has not yet demonstrated what the implications of the presence of social capital are for the welfare of households and whether social capital helps the poor.

1.6 Objectives of the study:

(1) To assess the following six social capital dimensions:

- density of associations
- their internal heterogeneity
- the frequency of meeting attendance
- members' effective participation in decision making
- payment of dues (in cash and in kind)
- the community orientation of associations

(2) To know whether household with high levels of social capital better off.

(3) To measure impact of social capital on household welfare.

(4) To know whether poor people have higher access to social capital or it is by the rich.

(5) To identify the pattern, household welfare indicators distributed among the social capital quintiles.

(2) LITERATURE REVIEW

2.1 Risks and vulnerability:

Vulnerability to poverty is the *ex-ante* situation, i.e. before one has knowledge of the actual shocks that will occur. Vulnerability is determined by the options available to households and individuals to make a living, the risks they face and their ability to handle this risk. (Dercon, 2001)

Households and communities can be identified as units of conflict and co-operation. Households and individuals have assets, such as labour, human capital, physical capital, social capital, commons and public goods at their disposal to make a living. Assets are used to generate income in various forms, including earnings and returns to assets, sale of assets, transfers and remittances. Households actively build up assets, not just physical capital but also social or human capital, as an alternative to spending. (Dercon, 2001)

Dercon (2001) realizes that transformation of assets into incomes and in turn their transformation into dimensions of well-being is all subject to risk. Assets are themselves bound to risk. Examples include destruction due to environmental factors or conflict, the erosion of human capital due to health or unemployment, the collapse of asset markets and values, problems with property rights and their enforcement, risks in social capital and access risk to public goods and commons. Béné et al (2007) also points out high occupational risk (from accidents), a lack of strong and effective organizations as the major factors that increase the vulnerability of fishers and fish workers.

Fishing households in general, and poor fishers in small-scale fisheries in particular, are prone to very high levels of vulnerability, which are closely related to their fishing activity and the type of

livelihoods associated with it. This vulnerability affects them through various sources of risk. (Béné et al, 2007)

Fishing is by nature an unpredictable activity. Although there is undoubtedly a “loose” relationship between capital investment and returns on that investment, this relationship is particularly uncertain and variable in small-scale marine and inland capture fisheries, both in the short and longer term. (Béné et al, 2007)

Béné et al (2007) further noticed, more broadly, there are many other factors that contribute to vulnerability in small-scale fisheries, including: high exposure to natural disasters (e.g. floods, hurricanes); high exposure to changes in macro-economic factors (e.g. fuel and other input prices, fish prices¹⁵); powerlessness and social, economic and political marginalization; increasingly high exposure to conflicts with other users (including industrial fishing fleets, but also other coastal zone land and sea users) due to increased competition for resources; and most recently to HIV/AIDS.

The transformation of assets into income is subject to risk. Beyond obvious but important factors such as climate or health, one should focus on (inter alia) price risk, the covariance between different income risks, risks to access of rationed inputs, risks of exclusion from informal or formal safety nets, problems related to contract enforcement and risks to changes in policy. Entitlements from incomes are also mediated by risk, including price risk but also and importantly, risks related to imperfect information and to the provision of public goods and services, especially since they often are rationed. (Dercon, 2001)

For physical and financial assets to be useful for protecting against vulnerability, they should have a reasonable return and limited risk. They also should be liquid and maintain their values during crises (Dercon, 2001).

Also for other assets, including commons, public goods and human capital, the key point is whether they can withstand stress, so that they can be effectively mobilized during crises. (Dercon, 2001)

2.2 Bonding, bridging and linking social capital:

Harper and Kelly (2003) perceive the concept bonding social capital as the closer connections between people and is characterized by strong bonds. e.g. among family members or close friends; it is good for "getting by" in life.

According to Harper and Kelly (2003) bridging social capital refers more distant connections between people and is characterized by weaker, but more cross-cutting ties e.g. with business associates, acquaintances, friends of friends; it is good for "getting ahead" in life. Stone (2001) argues on the idea of 'getting ahead', is facilitated through bridging social capital involving multiplex networks which may make accessible the resources and opportunities which exist in one network to a member of another.

Harper and Kelly (2003) express their views that linking social capital describes connections with people in positions of power and is characterized by relations between those within a hierarchy where there are differing levels of power; it is good for accessing support from formal institutions. And they further explain that linking social capital is different from bonding and bridging in the sense of the relationship between people who are not on an equal footing. Stone

(2001) says that linking social capital involves social relations with those in authority, which might be used to garner resources or power.

As a downside of social capital, Harper and Kelly (2003) review that strong bonding social capital may serve to exclude people.

Stone (2001) further strengthens the idea of bonding social capital and he describes that it involves trust and reciprocity in closed networks, and helps the process of 'getting by' in life on a daily basis.

The "bonding", "bridging" and "linking" social capital framework provides a useful way for thinking about the various different types of relationships that people have at any point in their life. It also highlights the fact that different families and communities will have different "mixes" of these types of relationships. That is, some people have strong family and friendship relationships (bonding social capital), whereas other people may be more engaged in community groups (a form of bridging social capital) or know many people in various organizations and institutions (linking social capital). Strengthening bonding, bridging or linking relationships may be critical for building family and community capacity, linking families to services and supports, improving safety nets for prevention and early intervention, and for empowering family and community members (Stone, 2003).

2.3 Shared norms and values:

Shared norms, values and understandings relate to shared attitudes about behaviour which are common in society and which are accepted by most individuals and groups as a "good thing" to do. These norms of behaviour are understood by most members of society. The role of sanctions in underpinning shared norms is important in that fear of disapproval might compel individuals

to comply with the shared values/norms and behave in an accepted way. (Harper and Kelly, 2003)

2.4 Groups and networks:

Harper and Kelly (2003) identify the following types of major groups: geographical groups (e.g. people living in a specific neighbourhood), professional groups (e.g. people in the same occupation, members of a local association or voluntary organization), social groups (e.g. families, church based groups, groups of friends) and virtual groups (e.g. the networks generated over the internet in chat rooms through common interest groups).

Grootaert et al, (undated) define network as a circle of “close friends”—that is, people one feels at ease with, can talk about private matters, or call upon for help. The size of the network then is captured by the number of such close friends. Stone(200....) emphasizes that networks can be anything from limited to extensive in size and capacity, and may involve relations within the household, at the neighbourhood or local community scale, to global and virtual relations which operate at vast distance. The size and capacity of social networks may affect overall stocks of social capital. Individuals and families with large numbers of social ties *may* have access to a large stock of social capital, depending on the nature of those ties. Those with few social ties may have little access or opportunity to invest in social capital.

Once one accepts that successfully activating network connections, either to obtain benefits or to supply them strengthens the bond between a pair of individuals, it is apparent that using social capital has positive third-party effects. Expanding your network indirectly increases the social capital of your associates by giving them access to a larger network. (Sobel, 2002) Building of

networks and trust among members in the context of a social setting spills over into financial benefits, e.g. by easier access to credit. (Grootaert, undated).

Sobel (2002) understands that social interactions depend on network structure. One would like to know, from a theoretical perspective, what kind of network performs best (for a given expenditure of network-creating effort) and what are the best locations within a network from an individual's perspective. He also recognizes that the effectiveness of a particular kind of network depends on the institutions available. According to this view, developing social capital is favourable not only because it is associated with good economic performance. It offers intrinsic value too. If extensive use of community ties leads to the same economic performance as, say, strong legal rules, then society would be better off if the outcome came about through social networks.

The degree to which networks are 'dense' – the extent to which network memberships overlap – affects the ability of persons in one context to call on assistance to solve a problem in another. (Stone, 2001)

The formation of networks and associations can be costly in terms of time and other resources. Therefore, households with higher income can devote more resources to network formation and thus acquire more social capital more easily(Grootaert et al, undated).

Stone (2003) says that it can be concluded that low levels of social capital reflect existing inequalities in some significant ways. At a family level, this means people who need support may have few connections and sources of support to draw on. At a community level, low levels of connections between people can result in highly fragmented communities, or in communities in which, for example, some people are marginalized or excluded from the rest of the

community. Conversely, it is evident that having greater levels of connections (the first and second social capital types above) may be positively related to a host of other factors within both family and community life. (Stone, 2003)

2.5 Trust and Reciprocity:

In 2002, Sobel in his article on ‘Can we trust social capital?’ defines trust as the willingness to permit the decisions of others to influence your welfare. Levels of trust determine the degree to which you are willing to extend credit or rely on the advice and actions of others. (Sobel, 2002)
.Trust is an abstract concept that is viewed in the context of specific transactions, such as lending and borrowing. Trust and solidarity capture cognitive social capital (Grootaert et al, undated).

Trust is viewed as being closely linked to social capital, either as a direct part of it or as an outcome. (Harper and Kelly, 2003). Trust can be seen as an input or output indicator, or even as a direct measure of social capital, depending upon one’s conceptual approach. (Grootaert et al, undated).

Warren (2001) finds out that the relationship of trust enables the truster to benefit from the resources of the trustee and vice versa. When people trust one another, they are able to form more extensive cooperative networks, and benefit from the more extensive cooperation. That is, relations of trust function as social capital. But trust itself generates risk for the truster, and people differ not only in their willingness to risk trust but also in the ways they hedge risk, a differences that are incorporated into the increasingly common distinction between generalized and particularized trust. The generalized truster will tend toward optimistic assessments of the intentions of strangers, and will therefore be more likely to assume the risks of trust. In that sense, generalized trusters are good builders of bridging social capital. A particularized truster,

on the other hand, is more risk conscious. He will be suspicious of strangers, and to limit trust to those he knows, or who are certified as trustworthy by some kind of shared group membership in a family, small community, church, or ethnic group, for example. (Warren, 2001)

A measure of a norm of trust (for example the extent to which a culture within a family group is trusting), is different from a behavioural outcomes of that norm. (Stone, 2001)

According to Warren's (2001) views particularized trusters will be good builders of bonding social capital, although not all bonding social capital need have its origins in particularized trust. But those kinds of bonds that do result from particularized trust depend on in-group/out-group distinctions, so that bonding is likely to come at a cost to bridges. A positive assessment of in group members is often defined by a negative assessment of out-groups as untrustworthy, usually on the grounds that the out-groups do not share the norms that make members of the in-group trustworthy.

Reciprocity is the process of exchange within a social relationship whereby 'goods and services' (meaning exchange of any kind) given by one party are repaid to that party by the party who received the original 'goods and services'. Reciprocal relations are governed by norms, such that parties to the exchange understand the social contract they have entered into. (Stone, 2001)

Referring Warren (2001) reciprocity can be describe as the basic norm of social exchange—so basic it is built into most ethical and cultural systems. Its generic form is the golden rule: do unto others what you would have them do unto you. Reciprocity enables cooperation that returns goods to individuals, and allows individuals to make claims on others, thus incurring obligations return the favors they receive.

Reciprocity indicates people's willingness to co-operate for mutual benefit and is a source of social capital. (Harper and Kelly, 2003). Warren (2001) realizes that reciprocity generates social capital in the form of obligations: if I do something for you, I then expect to be able to call on you in a time of need at some point in the future.

In 2001, Stone in his paper on 'Measuring social capital' has identified the two types of indicators namely 'proximal' and 'distal'. According to Stone's view the 'Proximal' indicators of social capital are in fact outcomes of social capital related to its core components of networks, trust and reciprocity. Examples of proximal outcomes (or 'indicators') include the use of civic engagement as an indicator of social networks.

Both social participation, which is defined as involvement in, and volunteering for, organized groups civic participation which is defined as individual involvement in local and national affairs, and perceptions of ability to influence them. It is considered to be a source of social capital (Harper and Kelly, 2003)

Harper and Kelly (2003) define social support as contact with, and support from, family and friends. They further reveal that these are seen as important sources of social capital. The number and types of exchanges between people within the network, and shared identities that develop, can influence the amount of support an individual has, as well as giving access to other sources of help.

Stone (2001) attends the idea that heterogeneity of group or network membership to influences the levels of trust within networks, the extent to which trust of familiars translates into generalized trust of strangers, and the extent to which norms within networks are shared.

2.6 More about Social Capital:

Stone (2003) in his approach of understanding social capital, he found four main types of social capital. The first type includes people who report having extensive numbers of ties, and highly trusting relationships across all of the bonding, bridging and linking forms of social capital. This is called “social capital rich”. The second type comprises of people who have limited networks of family and friends, but who are involved in civic and community life (bridging social capital). People having stronger bonding ties (family, friends and neighbours), but limited connections outside these networks come under the third type which is called “informal only” or “social capital limited”. Finally, a smaller but significant number of people are categorized into the type called “social capital poor”, as they have few connections to family, friends or neighbours, and limited civic and institutional ties. (Stone, 2003)

At the level of the community, local associations can be viewed as a manifestation of social capital. However, it must be emphasized that social capital and local associations are not synonyms. Social capital exists outside the context of local institutions (whether formal or informal). For example, two neighbors who help each other in times of trouble have social capital but may not show their bond in an association. Vice versa, the mere presence of an association does not prove the existence of social capital. (Grootaert, undated) Based on Woolcock’s (undated) emphasis on the efficacy of social capital in its institutional context implies that how communities manage both opportunities and risk will be necessarily dependent on the quality of the institutions under which they live.

The extent to which an individual has access to resources through social capital depends on the person’s connections (whom they know, but also connections through common group

membership), the strength of these connections, and the resources available to their connections. Individual choice can to some extent determine the strength and extent of connections, although not all of these connections are subject to choice. (Sobel, 2002)

The private returns to group participation should be sufficient to replenish the stock of social capital. (Sobel, 2002)

2.7 Externalities due to Social Capital:

Warren (2001) learns that now it is widely accepted that social capital can produce social bads and research has focused almost exclusively on the social goods. Negative externalities of social capital are defined as “bad” relative to these goods. And Warren (2001) explains that as there are many kinds of goods social capital can facilitate—democracy, education, prosperity, safety, health, and happiness, for example—there are also many bads. These include, to name a few possibilities, terrorism, organized crime, clientelism, some kinds of economic inefficiencies, rigid communities that stifle innovation and are dysfunctional within broader societies, ethnic rivalries, and unjust distributions of resources. Finally Warren (2001) concludes that all of these bads involve, in one way or another, the formation of social capital.

Warren (2001) and Sobel (2002) find that it is possible for a community to benefit from the positive externalities of individual investments in social capital, and yet for the social capital accumulated within the community to produce negative externalities.

Since most societies are segmented by class, race, ethnicity, religion, and other lines of cleavage, examples abound. A neighborhood activist may work to retain single-family zoning laws in order to preserve the quality of life in her neighborhood, and in so doing produce a neighborhood solidarity sufficient to resist higher density housing. But the effect on the broader society is to

reduce the supply of affordable housing and to shift costs onto newcomers, younger people, and renters. Members of an elite club may benefit from the trust that develops within, which they can then use to enhance their business opportunities. The broader social effect of this social capital, however, is to reinforce the hold of well-networked elite over business resources. The externalities of individual investments in social relations are positive for the participants, but negative for distributive justice within the broader society (Warren, 2001).

Warren (2001) points out that when people bring different complementary resources together, the benefits of cooperative action will be greater when people bring together different but complementary resources. The extent to which weak ties function as social capital for actors, however, depends upon how they provide access to resources acquired by other actors. While some of these resources are the personal possessions of actors, most follow from actor's position within some kind of hierarchy. Resources such as access to money, power, prestige, and the like are mostly "structurally embedded" within hierarchies, so that the value of a social connection to an actor, or his social capital, depends upon the position within the hierarchy of the actor upon which he is making a claim.

2.8 'Capital' features of Social Capital:

Based on his understanding Grootaert (undated) on social capital he says it has many "capital" features: it requires resources (especially time) to be produced and it is subject to accumulation and decumulation. Social capital can be acquired in formal or informal settings, just like human capital (e.g., schools versus learning-by-doing).

"Investing" in social capital is more difficult than investing in human capital, (building schools, training teachers, developing appropriate curricula, etc.). However, the recommendations for investing in social capital have not yet formulated (Grootaert et al, undated).

Resources are used as capital when they produce a return in excess of investment that can be captured by the investor. Social capital refers to productive investments in social relations. Social relations can be viewed as social *capital* when they function as an investment on which the participants gain a return. The returns on investment need not, of course, be monetary: they can involve anything of value, such as recognition, prestige, and education, enhanced.

The normative frame of the concept derives, of course, from economics, where “capital” refers to a particular use of money, namely, as investment in means of production to make a profit. While the analogy to capital in this sense can be pushed too far, what carries over are the ideas (a) that an investment can produce a return, and (b) that the return is of the sort that can be captured by the individuals who made the investment. Social relations function as social capital when individuals can capitalize upon them.

The notion of physical capital is materialist and individualist: money will not be invested unless investors can capture the returns. As is well known, this is why public goods cannot be produced by markets, and why every investor in productive activities as incentives to produce *negative externalities*—costs that are shunted off onto others who do not benefit from the activity. Every externalized cost increases captured return.

Markets are mediated by money, and social relations are mediated by social norms, language, and affects. But because the market concept highlights returns on investment that can be captured by individuals, it suggests that social activities, like market activities, might also produce negative externalities. This is what has gone missing from most current uses of the

concept of social capital. While most definitions are explicit that it is *individuals* who benefit from investments in social capital, the question of externalities is rarely addressed. (Warren, 2001)

The stock of social capital can lead to a stream of benefits which can take many different forms: improved access to credit, improved access to education and health services, improved risk management, etc. Referring other economists Grootaert et al (undated) have also noticed the lack of market for trading social capital, typical for other types of assets. He also refers some anthropologists view points focus the idea that social phenomena captured by social capital (institutions and networks, and their underlying norms and values) are part of the essential dynamics of a society and should not be reduced to being labeled “capital.”

According to Sobel (2002) to some extent, transfer of social capital is possible. For instance, part of the social capital of a storeowner is the reputation of her shop. It is possible to transfer ownership of the shop without destroying the faith customers have in the products sold in the store. Indeed, one can imagine that establishing corporate identities and good names is a way to establish markets for certain types of social capital.

Sobel (2002) emphasizes the appreciation is applicable to social capital especially in important instances, making use of social capital increases the stock of social capital available for future use.

2.9 Membership, Collective action and Participation:

Grootaert (undated) underlines the importance of looking at membership conditions (voluntary or not, payment of fees, etc.) and the degree of effective participation in associations before inferring social capital effects.

In the vast majority of settings, collective action is possible only if a significant amount of social capital is available in the community. (Grootaert et al, undated) Clearly, the possibility for a given household to join an association increases as more associations exist in the village. (Grootaert, undated)

Collective action is an output indicator (Grootaert et al, undated) requires a shared perception of the common good which is easier to achieve among people of the same kin or religion. (Grootaert, undated)

The key assumption is that the networks built through these interactions have measurable benefits to the participating individuals, and lead, directly or indirectly, to a higher level of well-being. (Grootaert, undated)

Grootaert (undated) argues that there are two ways in which social capital is truly “social.” First, there are spillover effects from social interaction undertaken in one sphere (e.g. social, religion, cultural) into other spheres, leading to improved access to financial and other resources. In order to capture these effects the household must engage itself actively in local associational life. A dense network of associations will not necessarily lead to economic benefits to non-members, at least not in the short run. (Grootaert, undated)

Two mechanisms are identified whereby spillover effects do reach the community at large. Collective action occurs more frequently in communities with high levels of social capital, and past community action for development projects benefits households regardless of whether they currently are active in the community. (Grootaert, undated)

One of the positive manifestations of a high level of social capital in the community is the occurrence of frequent every-day social interactions. This “sociability” can take the form of meetings with people in public places, visits to other people’s homes or visits from others into one’s own home, and participation in community events such as sports or ceremonies. (Grootaert et al, undated)

Much social capital is built during interactions which occur for social, religious, or cultural reasons. (Grootaert, undated)

3. METHODOLOGY

Social capital is recognised as a multidimensional concept and therefore a single measure cannot provide a complete picture. (Harper and Kelly, 2003)

Of the household survey, some indicators measure sources of social capital (e.g. related to the personal contacts and interactions made by meeting people through clubs, churches, organisations, etc). Others measure outcomes of social capital. (Harper and Kelly, 2003)

Stone (2001) uncovers his view that there is a gulf between theoretical understandings of social capital and the ways social capital has been measured in much empirical work to date is a criticism. He says this gulf which leads to empirical confusion about the meaning, measurement, outcomes and relevance of social capital.

3.1 Literature survey:

In order to acquire higher level of conceptual clarity, adequate amount of previous publications were associated. Certain secondary data and information were obtained from relevant organizations such as Department of Census and Statistics, Sri Lanka, and etc.

3.2 Household Questionnaire Survey and other informal interviews:

Structured questionnaire was used for the formal household survey. It targeted members of the associations as well as non-members. And, it also focused the boat owners and crew members of each categories of small scale fishing crafts. In this study the questionnaire was comprised of six sections:

□ demographic information on household members

- participation in local institutions
- characteristics of the most important groups
- service provision profiles
- perceptions of community trust and collaboration
- household economy and coping strategies.

To gather certain other required information, number of informal discussions was carried out with some village personals such as community group leaders, and etc.

3.3 Sampling method used, Sample Area, Sample size and data collection:

Stratified random sampling was adopted. Those strata were owners and crew members of each boat categories as well as the members of the associations and the nonmembers.

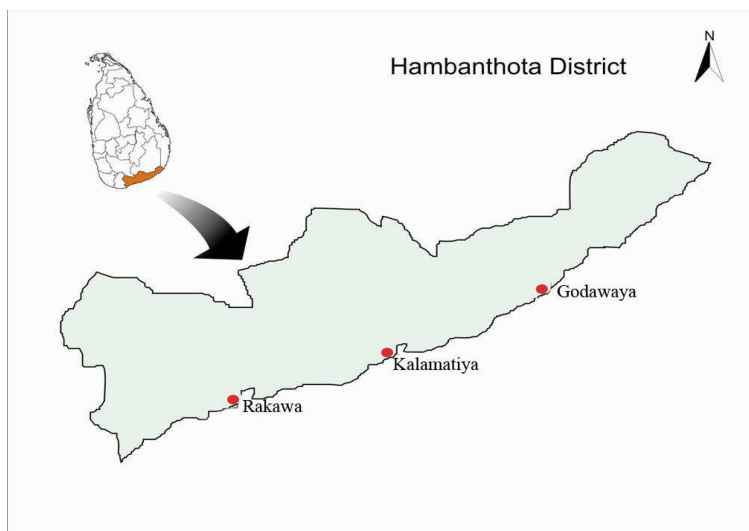


Figure: (6) Orientation of three sample locations

Three traditional fishing villages; Godawaya, Rekawa and Kalametiya were selected as three sample locations. Obviously it looked like Godawaya and Kalametiya were rich in social capital while Kalametiya was not.

During the household survey, 305 fisher households were interviewed; 94 from Godawaya, 78 from Rekawa, and 133 from Kalametiya.

3.4 Data analysis:

Analytical software packages; SPSS and EXCEL were used for the analysis of data.

3.4.1 Construction of required indices:

Density of membership:

This is measured by the number of memberships of each household in existing associations. At the village level, a complete inventory of all existing associations was made and then each household was asked which associations they were a member of.

According to Grootaert et al (undated) membership in local associations and networks is clearly an input indicator, because the associations and networks are the vehicles through which social capital can be accumulated.

Human Capital Index:

In the same way Grootaert et al (undated) adopted, the years of education per adult is considered as a proxy for human capital.

Heterogeneity index:

The household questionnaire identifies the three most important associations for each household. For those associations, a number of questions were asked in order to measure heterogeneity of the group. This was rated according to eight criteria: neighborhood, kin group, occupation, economic status, religion, gender, age, and level of education. The score constructed ranges from 0 to 8 for each of the three associations (a value of one on each criterion indicated that members of the association were “mostly from different” kin groups, economic status, etc.). The score of the three associations was averaged for each household and the resulting index was re-scaled from 0 to 100 (whereby 100 corresponds to the highest possible value of the index) (Gootaert, undated).

Meeting attendance index:

To construct the meeting attendance index, the same approach Gootaert (undated) adopted was followed- it takes the average number of times someone from the household attended group meetings, normalized for the number of memberships of each household into account.

Decision making index:

During the household survey each respondent was asked to evaluate subjectively whether they were “very active” “somewhat active” or “not very active” in the group’s decision making.

Then the response was scaled from 2 to 0 respectively, and averaged across the three most important groups in each household. Finally, the resulting index was re-scaled from 0 to 100.

Membership dues:

Grootaert (undated) says that willingness to pay membership dues is a sign of greater interest in the association. Under membership dues, both cash contribution and work contribution were considered. Cash contribution: amount of fees (Rupees per month) paid for memberships in the three most important groups. Work contribution: number of days worked per year as membership contribution in the three most important groups.

3.4.2 Household Welfare and Social Capital: The Aggregate Model

The basic question to be addressed is: Are households with high levels of social capital better off? In order to address the question, as a first step, households were grouped into quintiles based on their ranking on the additive social capital index. I selected the number of memberships and the index of active participation in decision making to construct (with equal weights) an additive social capital index following the same way admitted by Grootaert (undated)

Grootaert (undated) prescribes that a conventional model of household economic behavior can readily be adjusted to reflect the role of social capital.

The customary reduced-form model of these structural equations relates household expenditure directly to the exogenous asset endowment of the household and yields the estimating equation below:

$$\ln E = a + bSC + gHC + dOC + eX + hZ + u \quad (1)$$

Where iE = household expenditure per capita of household i

iSC = household endowment of social capital

iHC = household endowment of human capital

iOC = household endowment of other assets

iX = a vector of household characteristics

iZ = a vector of village/region characteristics

iU = error term

Grootaert (undated) says that the key feature of this model is the assumption that social capital is truly “capital” and hence has a measurable return to the household.

The dependent variable of equation (1) is the natural logarithm of household expenditure per capita. The explanatory variables comprised of the asset endowment of the household, demographic control variables, and locational dummy variables. Household assets are assumed to consist of human capital, and social capital. Grootaert et al (undated) perceives social capital as one class of assets available to households for generating income and making consumption possible.

3.4.3 Disaggregating the Social Capital Index: Additive model:

Grootaert (undated) concludes that it is also possible to consider that each social capital dimension acts independently, and that the effects are additive. Therefore, the additive model is tested in order to determine the relative weight of each dimension. To detect the effects, replace in the model the aggregate social capital index with seven variables capturing the six dimensions of social capital (membership contributions are captured by two variables—cash and work contributions).

(4) RESULTS

4.1 Existing Community groups, organisations, etc. identified:

- Gear groups
- Fishermen Unions
- Fisheries NGOs
- Informal Youth groups
- Religious Associations
- Welfare Societies
- Youth clubs
- Political groups
- Fisheries Cooperatives
- Savings Societies
- Women's societies

4.2 Age composition of the 3 sample populations:

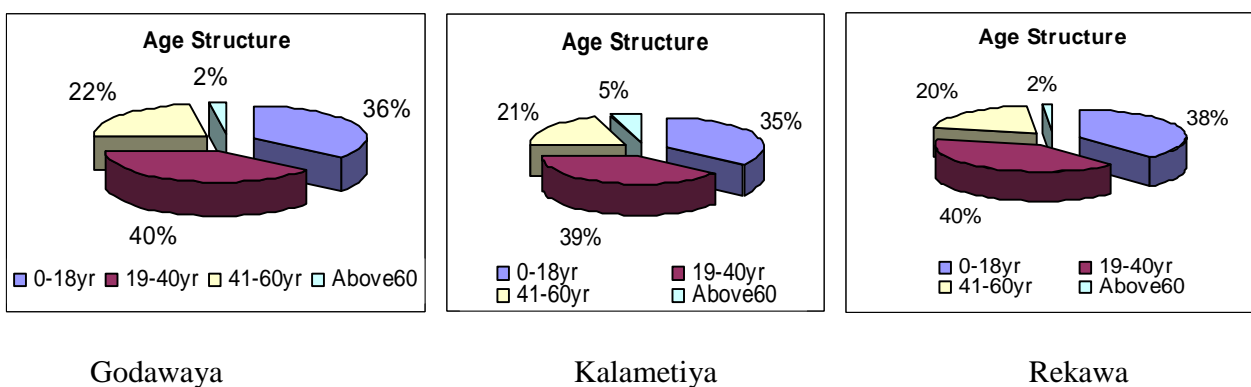


Figure: (7) Age structure of the sample populations.

4.3 Land Ownership:

Table: (3) Composition of land ownership in 3 sample villages

Size of the land block	Godawaya	Kalametiya	Rekawa
0-1/4 Ac	64%	23%	45%
>1/4-1/2 Ac	21%	19%	23%
>1/2-1 Ac	10%	45%	16%
>1 Ac	5%	13%	6%

4.4 Condition of shelters:

Table: (4) Condition of shelters:

		Godawaya (%)	Kalametiya (%)	Rekawa (%)
Roof	Cadjan	7	2	3
	Tin	4	2	2
	Tile	87	92	95
	Asbestos	2	4	0
Floor	Clay	14	4	14
	Cement	84	84	73
	Tile	2	11	13
Walls	Clay	4	4	6
	Timber	2	1	3
	Bricks	28	50	36
	Cemented	65	45	55
	<500ft ²	24	22	24
	>500-1000ft ²	58	72	59

Size	>1000-1500ft ²	1	5	8
	>1500-2000ft ²	15	1	9

4.5 Availability of Human Capital:

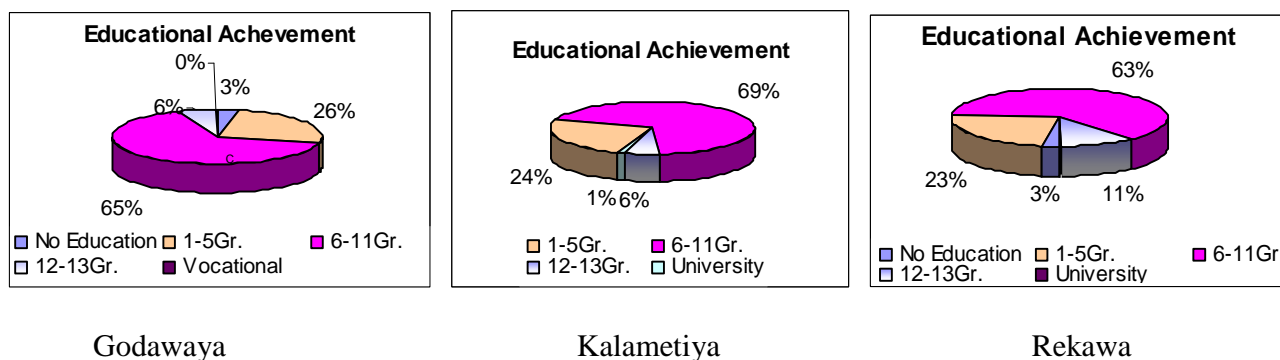


Figure: (8) Educational achievement of the people of 3 sample locations.

4.6 Beneficiaries of government food stamp:

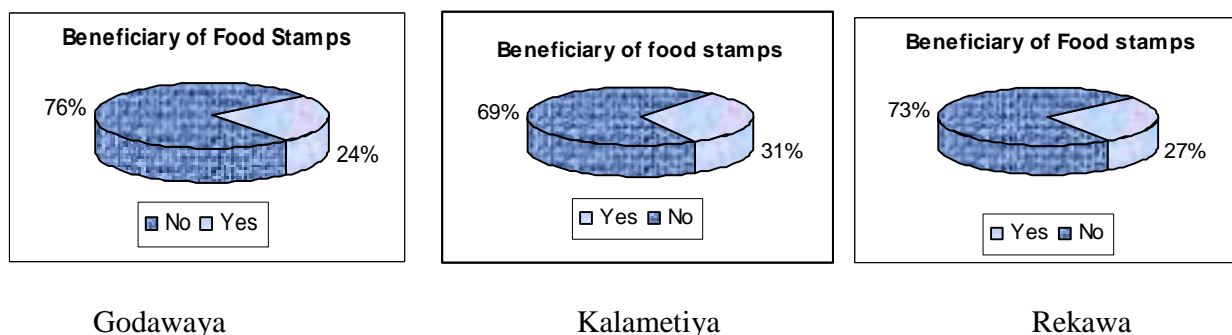
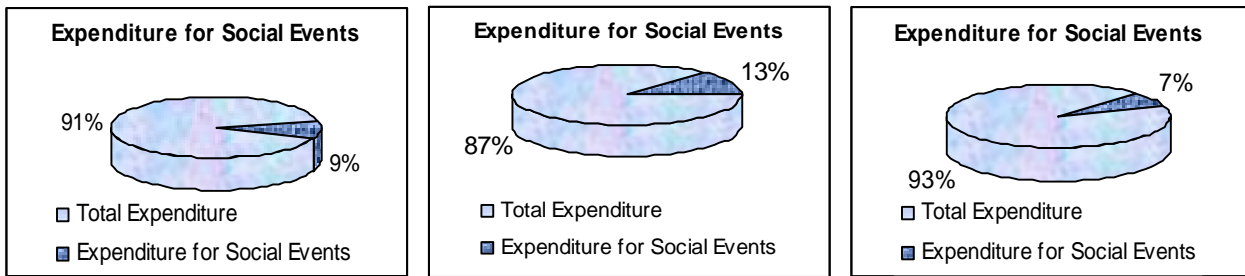


Figure: (9) Percentage share of the 'Samurdhi' food stamp beneficiaries to the total population of the areas.

4.7 Financial investment on social capital development and maintenance:



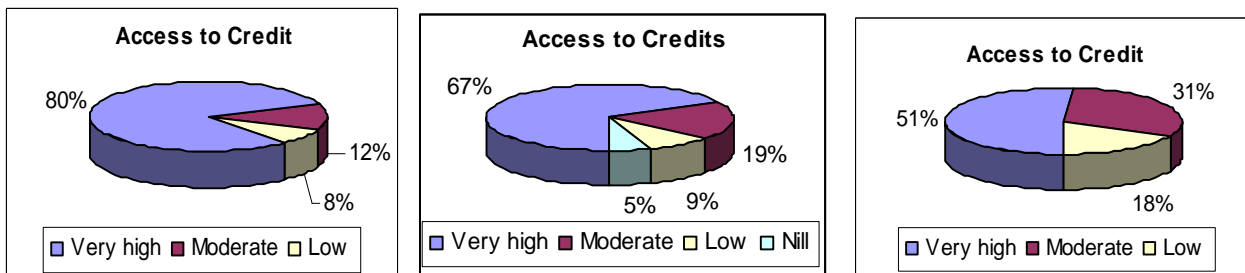
Godawayaya

Kalametiya

Rekawa

Figure: (10) Percentage share of total expenditure on social capital

4.8 Availability of Financial Capital:



Godawayaya

Kalametiya

Rekawa

Figure: (11) Percentage shares of people's perception on access to credits issued by institutions.

Table 5 : Local associations and their characteristics

	Godawaya	Kalametiya	Rekawa
Density of Memberships	3.24	3.30	2.66
Index of Heterogeneity	94.19	95.43	92.30
Meeting Attendance	3.07	2.22	2.61
Decision Making Index	56.56	65.55	54.04
Cash Contribution	213.64	229.12	278.97
Work Contribution	2.87	5.36	4.58
Community Orientation	96.75	93.40	86.01

Note: Variable definitions are:

- *Density of Memberships:* average number of active memberships per household.
- *Index of heterogeneity:* scale (0 to 100) of internal heterogeneity of the three most important groups, according to eight criteria.
- *Meeting attendance:* average number of times a household member attended a group meeting in the last three months, normalized for the number of memberships.
- *Index of participation in decision making:* scale (0 to 100) of extent of active participation in decision making in the three most important groups.
- *Cash contribution:* amount of fees (Rupees per month) paid for memberships in the three most important groups.
- *Work contribution:* number of days worked per year as membership contribution in the three most important groups.
- *Community orientation:* percent of memberships in organizations which are community-initiated.

Table 6: Ownership of Assets, by Quintile of Household Expenditure per Capita in Godawaya.

	Quintiles					All
	1 (Poorest)	2	3	4	5 (Richest)	
Social Capital Index	22.32	32.72	32.60	29.66	37.55	31.05
Years of Education	6.90	8.21	7.95	8.87	11.08	8.60
Land Ownership (hectares)	0.10	0.18	0.26	0.15	0.40	0.22
OFRP Boat Ownership (number)	0.20	0.33	0.45	0.75	0.66	0.48
MTRB Ownership (number)	0	0.01	0	0	0	0.003
NTRB Ownership (number)	0.30	0.08	0.05	0	0	0.08
Gear Ownership (number)	8.80	10.33	12.45	14.50	23.33	13.88
Bicycle Ownership (number)	0.70	0.59	0.55	0.50	0.66	0.60
Motor Bicycle Owners (number)	0	0.29	0.40	0.75	1.00	0.48
Threewheeler Owners (number)	0	0.07	0.20	0	0	0.05
Fourwheeler Owners (number)	0	0	0	0	0.33	0.06
Home Equipments* (number)	1.00	2.03	2.15	1.75	3.66	2.12
Note: * Considered 8 Home Equipments; Cassette, Hi Fi System, Television, Refrigerator, Computer, Oven, Washing Mashing, DVD Player						

Table 7: Ownership of Assets, by Quintile of Household Expenditure per Capita in Kalametiya

	Quintiles					All
	1 (Poorest)	2	3	4	5 (Richest)	
Social Capital Index	28.93	59.63	66.39	74.71	84.28	62.78
Years of Education	10.08	8.98	9.70	9.92	10.44	9.82
Land Ownership (hectares)	0.08	2.49	0.24	0.25	1.48	0.91
OFRP Boat Ownership (number)	0.41	0.11	0.03	0.18	0.33	0.21
NTRB Ownership (number)	0.08	0.30	0.15	0.12	0.33	0.19
MTRB Ownership (number)	0.08	0.04	0.06	0	0	0.03
Gear Ownership (number)	2.26	2.92	15.57	14.12	21.33	11.32
Bicycle Ownership (number)	0.33	0.46	0.51	0.62	1.00	0.58
Motor Bicycle Owners (number)	0.33	0.33	0.42	0.31	0.66	0.41
Threewheeler Owners (number)	0.08	0.14	0.09	0.06	0.33	0.14
Fourwheeler Owners (number)	0	0.014	0.030	0.006	0.333	0.076
Home Equipments * (number)	1.83	2.08	2.21	2.50	1.66	2.05
Note: * Considered 8 Home Equipments; Cassette, Hi Fi System, Television, Refrigerator, Computer, Oven, Washing Mashing, DVD Player						

Table 8: Ownership of Assets, by Quintile of Household Expenditure per Capita in Rekawa

	Quintiles					All
	1 (Poorest)	2	3	4	5 (Richest)	
Social Capital Index	37.75	50.79	64.62	48.79	26.08	45.61
Years of Education	7.51	8.15	9.65	9.91	7.08	35.51
Land Ownership (hectares)	0.19	0.17	0.28	0.14	0.26	0.21
OFRP Boat Ownership (number)	0.31	0.03	0.36	0.44	0.83	0.45
NTRB Ownership (number)	0.10	0.15	0.09	0.11	0	0.09
MTRB Ownership (number)	0	0.03	0	0	0	0.06
Gear Ownership (number)	7.84	11.63	7.72	18.66	22.66	13.70
Bicycle Ownership (number)	0.73	0.60	0.63	0.42	0.50	0.58
Motor Bicycle Owners (number)	0.10	0.27	0.18	0.28	0.25	0.21
Threewheeler Owners (number)	0.05	0.06	0	0.28	0.12	0.10
Fourwheeler Owners (number)	0	0.03	0	0.28	0.37	0.13
Home Equipments* (number)	1.63	2.72	2.18	1.88	1.50	1.98
Note: * Considered 8 Home Equipments; Cassette, Hi Fi System, Television, Refrigerator, Computer, Oven, Washing Mashing, DVD Player						

Table 9: Household Welfare Indicators, by Levels of Social Capital in Kalametiya

	Social Capital Quintiles*					All
	1 (Poorest)	2	3	4	5 (Richest)	
Household Expenditure per Capita (Rupees per month)	12.01	12.14	14.31	19.44	22.99	16.18
% of Households with Access to Credit	32	81.39	87.5	88.23	100	77.82
Amount of Credit Received ('000 Rupees)	555	4955	3757	2574	1939	2756
% of Households with Forced Asset Sales and Pawned	36	46.51	67.5	82.35	62.5	58.97
Notes: * Households were grouped in quintiles based on their ranking on the social capital index calculated as the average of the number of memberships and the indexes of participation in decision making.						

Table 10: Household Welfare Indicators, by Levels of Social Capital Rekawa

	Social Capital Quintiles*					All
	1 (Poorest)	2	3	4	5 (Richest)	
Household Expenditure per Capita (Rupees per month)	21.63	25.88	15.29	15.19	13.37	18.26
% of Households with Access to Credit	20	50	79.16	80	85.71	62.97
Amount of Credit Received ('000 Rupees)	42	931	1265	670	210	623
% of Households with Forced Asset Sales and Pawned	40.40	45.83	45.83	20	42.85	37.91
Notes: * Households were grouped in quintiles based on their ranking on the social capital index calculated as the average of the number of memberships and the indexes of participation in decision making.						

Table 11: Household Welfare Indicators, by Levels of Social Capital in Godawaya

	Social Capital Quintiles*					All
	1 (Poorest)	2	3	4	5 (Richest)	
Household Expenditure per Capita ('000 Rupees per month)	9.4	10.82	11.731	19.845	30.8	16.52
% of Households with Access to Credit	67.74	80.39	90	100	100	74.07
Amount of Credit Received ('000 Rupees)	948.5	2916	750	170	200	997
% of Households with Forced Asset Sales and Pawned	51.61	62.74	70	100	100	76.87
Notes: * Households were grouped in quintiles based on their ranking on the social capital index calculated as the average of the number of memberships and the indexes of participation in decision making.						

Table 12: Household Welfare and Social Capital: The Aggregate Model

	With social capital		Without Social Capital	
Intercept	7.5697	(26.53)	8.3433	(37.26)
Social Capital Index	0.0040	(4.19)	-	-
Household Size	0.1488	(6.49)	0.1661	(7.17)
Years of Education per Adult	0.0070	(0.53)	0.0096	(0.71)
Age of Head of household	0.0013	(0.51)	0.0012	(0.47)
OFRP Boat Owner Household	0.3945	(3.72)	0.0936	(0.49)
MTRB Boat Owner Household	0.0299	(0.16)	0.0936	(0.49)
NTRB Boat Owner Household	0.0960	(0.78)	0.1024	(0.90)
OFRP Boat Crew member Household	0.1573	(1.58)	0.1820	(1.78)
MTRB Crew member Household	-0.1084	(0.53)	-0.0594	(0.28)
NTRB Crew member Household	0.0291	(0.18)	0.0553	(0.34)
Godawaya	0.5058	(2.64)	-0.2439	(3.40)
Rekawa	0.1840	(2.26)	0.0226	(0.31)
Number of Observation	305		305	
R-Squared	0.3172		0.2756	
F-statistic	11.19		10.03	
Notes: Dependent variable = ln (household expenditure per capita)				

Table 13: Household Welfare and Social Capital: Disaggregate the Social Capital Index

Intercept	8.3284	(35.99)
<i>Social Capital Dimensions</i>	0.0444	(1.72)
Number of Memberships		
Heterogeneity Index	-0.0015	(0.94)
Meeting Attendance	-0.0116	(0.48)
Index of Participation in Decision Making	0.0024	(2.47)
Cash Contribution Score	6.023E-04	(0.53)
Work Contribution Score	-0.0021	(1.42)
Household Size	0.1644	(6.87)
Years of Education per Adult	0.0041	(0.30)
Age of Head of household	1.361E-04	(0.05)
OFRP Boat Owner Household	0.3423	(3.12)
MTRB Boat Owner Household	0.1780	(0.93)
NTRB Boat Owner Household	0.1066	(0.94)
OFRP Boat Crew member Household	0.1777	(1.74)
MTRB Crew member Household	-0.0409	(0.19)
NTRB Crew member Household	0.0235	(0.14)
Godawaya	-0.1375	(1.45)
Rekawa	0.0771	(1.00)
Number of Observation	305	
R-Squared	0.3028	
F-statistic	7.25	
Notes: Dependent variable = ln (household expenditure per capita)		

(5) DISCUSSION

5.1 Age structure:

Age structure of all 3 regions is approximately the same. In Sri Lanka, working age of an adult ranges between 18 yrs to 60 yrs. Sixty two percent people in Godawaya are of that category while 60 percent people come under the same age group in both Kalametiya and Rekawa.

5.2 Shelter conditions:

Table: (4) indicates that size of the most of the houses are below 1000 ft²; 94 percent of the houses in Kalametiya come under said category while 83 percent of houses in Rekawa, and 82 percent houses in Godawaya are of the same classes.

In all 3 regions, percentage of houses smaller than 500 ft² is considerable; 24 percent houses in Godawaya and Rekawa while 22 percent in Kalametiya.

Table: (4) shows that, in Rekawa, 95 percent of the houses have tiled roofs. In KAlametiya, the percentage houses built with tiled roofs is 92 percent and that of in Godawaya is 87 percent. It also points out that 84 percent houses in both Gadawaya and Kalametiya have cemented floor. In Rekawa, the percentage house furnished with cemented floor is 73 percent.

In addition, Table: (4) exhibits that 64 percent of the houses constructed with cemented walls while 55 percent and 48 percent of the houses are of the same category respectively in Rekawa and Kalametiya.

5.3 Land ownership:

Table: (3) presents data relating to the distribution of land ownership. Most people; 64 percent households in Godawaya have up land blocks of equal or less than $\frac{1}{4}$ ac. And, 45 percent households in Kalametiya possess up land blocks of $> \frac{1}{2} - 1$ ac. In Rekawa, 45 percent households have the up land blocks equal or less than $\frac{1}{4}$ ac.

5.4 Access to drinking water:

It could be noticed that 95 percent of households in both Kalametiya and Rekawa receive pipe-born water while 94 percent household in Godawaya have access to the same. Even the rest of the household is small in extent in those 3 regions, it is a big challenge for people to find other source of good quality water especially for drinking water bathing. Village seasonal tanks (reservoirs) or public or privately owned wells are the other source of water.

5.5 Availability of toilet:

Data reveal that 99 percent in Rekawa household in Rekawa and 95 percent household in Kalametiya have water-sealed toilet facility while 89 percent households in Godawaya have the said facility.

5.6 Availability of human capital:

According to the facts presented by Figure: (8), Kalametiya shows the best access to human capital among the 3 regions considered. Being the closest location to Tangalle; the town relatively most facilitated with educational infrastructures in Hambantota district could be a reason for Kalametiya to have the best educational performance among the 3 villages. It is

evident that most of the people in all 3 regions are found in the category of 'Grade 6 to Grade 11' in the context of their educational achievement.

5.7 Average monthly household expenditure:

The highest average monthly household expenditure of Rs.18 889.36 is reported from Rekawa while the second highest of Rs.14 357.43 and the other of Rs.10 761.78 are reported respectively from Kalametiya and Godawaya.

5.8 Food stamp recipient:

Usually, it is accepted that number of beneficiaries of government food stamp is an indication of the poverty status of the area. Figure: (9) illustrates that 31 percent of the survey respondent household are food stamp recipients in Kalametiya which is the highest among the 3 areas and 27 percent of household in Rekawa receive the food stamp while 24 percent are beneficiaries of the same in Godawaya.

5.9 Availability of financial capital:

Figure: (11) based on the household's perception on how it is easy for people access credits issued by the most important associations / groups the highlighted. Eighty percent of the household in Godawaya say that there is a very high access to that particular credit. In Kalametiya, 67 percent households perceive the same view while 51 percent households keep the same intention.

5.10 Share of the total monthly household expenditure on social events:

People in Kalametiya allocate 13 percent of the total monthly household expenditure (Figure: 10) on social events such as weddings, attain puberty party, death ceremony, alms giving, other

religious events such as 'Pirith' chanting, and etc. In Godawaya, people spend 9 percent of the total monthly household expenditure for social events. In Rekawa, it is 7 percent.

5.11 Amount of per household credit accessed (for the last three years: 2006-2008):

The highest access to credit is exhibited in Kalametiya. The amount is Rs.1 39 202.00. In Godawaya, the amount of per household credit accessed is Rs. 68 287.67. In Rekawa, it is Rs.66 460.00.

5.12 Access to telecommunication and electricity:

Ninety percent households in Kalametiya acquire telephone facility while 89 percent of them have access to electricity. And, 85 percent of household in Rekawa possess telephones while 95 percent of them have electricity. In Godawaya, 80 percent households have telephone facility and 83 percent utilize electricity.

5.13 Ownership of assets by quintiles of monthly household expenditure:

Figure: (6) indicates the distribution of the membership of different kinds of assets such as social capital, human capital and certain other types of physical assets among the quintiles of household expenditure per capita in Godawaya.

According to the data presented by Figure: (6), it is evident that the highest social capital index value of 37.55 shown by the richest quintile while the lowest value visualizes in the poorest quintile implying that, in Godawaya, rich have more access to social capital.

In case of human capital, in the same way, rich people (based on household expenditure) have more access to human capital while the poorer people have the least access.

As well, in Godawaya, the highest land ownership, fishing gear ownership, motor bike, four wheeler, and other home equipment ownership are acquired by the richest quintiles of the people. Ownership of MTRB, NTRB and push bicycle is concentrated to the poorest quintiles. Table: (6) further uncovers that for the poorer quintiles it has been very difficult to access most of the valuable physical assets such as land, FRP boats, motor bikes, three wheelers, four wheelers, and etc.

Table: (8) presents the same dimensions of Rekawa. Contrary to the situation prevails in Godawaya, the highest social capital access is displayed by the poorest and moderately poor quintiles. In other word, social capital is concentrated among the 2nd, 3rd, and 4th quintiles. May be due to this reason, people come under the said quintile have higher access especially to human capital, certain physical assets such as bicycle and home equipments. As in Godawaya, richest have the highest access to FRP boats, gears, motor bikes and four wheelers.

In Kalametiya, social capital index has been rich in richest quintile of per capita household expenditure (Table: (7)). It is the highest index value too among the 3 villages. As far as social capital index of Kalametiya concerned, there is a clear decline of its value toward the poorest quintiles from the richest.

Being different from Godawaya and Rekawa, in case of human capital, both poorest and the richest quintiles display the highest access. Contrary to the other two villages, here in Kalametiya, poorest quintile has the highest access to FRP boats.

Mostly, in the other two villages, there is the highest access to gears, bicycles, motor bikes, three wheelers and four wheelers by the richest quintile.

Higher degree of ownership of home equipments is shown by 2nd, 3rd, and 4th quintiles which are relatively rich in social capital index.

5.14 Household welfare indicators by quintiles of social capital:

Table: (9), (10) and (11) include the figures explain the household welfare indicators by quintiles of social capital in 3 villages surveyed.

In Godawaya, the richest quintile (based on social capital index) shows the highest per capita household expenditure. In simpler term, it means that people who are richest in social capital spend the highest amount of money as per capita household expenditure. It can be concluded that the richest quintile have the highest access to credits issued by the associations / groups in Godawaya.

Hundred percent of the household of the social capital richest quintiles do pawning and selling valuable physical assets (however selling of assets is rare) as coping strategy. According to the data included by Table: (11) in the same way noticed in Godawaya, both the highest per capita household expenditure and highest percentage access to credit are displayed by the social capital richest quintile.

The trend of being percentage household with forced assets sales and pawning of assets is higher within the richer quintiles; 3rd, 4th and 5th.

Table: (10) illustrates how household welfare indicators distribute according to the social capital quintiles of Rekawa sample population. Interestingly, empirical findings further strengthen the field observations of the social capital dynamics. For instance, in Rekawa east, relatively poor prominence of the associational activities could be observed. At the field level experience, it can

be concluded that it was mainly due to lack of leadership skills which keep most people, especially, people who are active in collective works. In Rekawa, rich people were slightly reluctant to join with such a 'dormant' associations / groups. As a consequence, the same outcome is embodied by the empirical data. Table: (10) shows that quintiles poor in social capital exhibits higher level of per capita household expenditure vice versa. It implies that, in Rekawa, poor household have higher access to social capital. As a result, Table: (10) further explain that social capital rich household have higher access to credits issued by the associations / groups.

Poorer quintiles on the basis of social capital indicate higher percentage of household with forced asset sales and pawning. The rich households rely on conversion of their physical capital into financial capital rather than depending on the credits issued by the associations.

5.15 Components of the social capital index:

Density of membership:

In fact, active membership is an indication of in which degree people engaged with the membership associations. The highest density of membership (3.30) is exhibited in Kalametiya and the next highest (3.24) is shown by Godawaya while the least (2.66) is displayed by Rekawa (Table: 5).

Index of heterogeneity:

After rescalling the index values, they appear as figures between 0 and 100. Table: (5) shows that the most important associations for the households in the 3 regions are much heterogeneous. All the three village indicate very high heterogeneity index values; 95.43, the highest, which is of Kalametiya, 94.19 in Godawaya and 92.30 in Rekawa.

Meeting attendance index:

Highest meeting attendance; 3.07 pertains to Godawaya and the next highest (2.61) belongs to Rekawa while KAlametiya reports the least (2.22). Obviously, active and higher leadership skills of the community leaders and strong monitoring and evaluation procedures carried out by certain associations, for instance – Fisheries cooperative society may be the reason for Godawaya to show the highest.

Decision making index:

Kalametiya entitles to the highest decision making index; 65.55 and Godawaya indicates the next highest; 56.56 while Rekawa refers the least; 54.04. This is in fact, the people's own perception on their activeness in decision making within their most important 3 associations.

In addition, the index values reflect the degree of independence and the extent of empowerment of the people of these 3 communities.

Per month cash contribution made for the events organized by the associations:

This is slightly higher (Rs.278.97) in Rekawa relative to the other two villages;Kalametiya (Rs.229.12) and Godawaya (Rs.213.64). This cash contribution is to cover the all sorts of collective social events such as cleaning public places, religious functions, and etc organized by the 3 most important associations specified by the respondents. This doesn't include the monthly membership payment.

Work contribution:

Kalametiya shows 5.36 man days; the highest per capita household work contribution per year. That of for Rekawa and Kalametiya are 4.58 man days and 2.87 man days respectively. It seems that, work contribution is very lower in all 3 regions. The reasons may be the fishers' adherence to the daily fishing which is being marginalized or around subsistence which causes frequent absence from this sort of collective actions and being registered under many number of associations or groups by house wives which leads to limited number of free hours available for them to attend such activities organized by one association / group.

In Godawaya, 85.82 percent households attend collective activities organized by the 3 most important associations/groups highlighted by people. It was 74.76 percent in Kalametiya while that of in Rekawa is 61.17 percent. The situation implies that people in Godawaya have shown the higher level of participation may be due to lesser number of events organized for the period concerned, and due to relatively strong monitoring and evaluation of member participation Eg. Fisheries cooperative societies in Godawaya and Kalametiya.

It is interesting to notice that, with the increase of work contribution, percentage household attended the events organized has been lowered a little both in Kalametiya and Rekawa relative to Godawaya.

5.16 Effect of social capital on household welfare: The aggregate model:

Table: (12) indicates mainly the effect of social capital, human capital and certain other variables on household welfare. Here, in order to embody the 'social capital' component as independent variable, the Aggregate social capital index is considered, which is different from the later case

which considers the disaggregate form of it, i.e. each components of the above index as separate variables.

The first data column of the Table: (12) explains what happens to household welfare, with social capital effect while the 2nd column illustrates the effects of other independent variables, in the absence of social capital component.

According to the R-squared value in the analysis with social capital, it can be said that 31.72 percent variation in household welfare is explained by the variation in social capital, years of per capita adult education (human capital), and other dependent variable.

It further shows that social capital has positive relationship with household welfare. IT is clear that, unit increase in social capital will cause 0.4 percent increase in household welfare. In the same way, unit increase in household size will produce 14.88 percent increase in household welfare. In other words, larger households have higher household expenditure. In fisheries, if the more members in the family, the more males will be there to do fishing which increases family income.

According to results, human capital generates a positive effect on household welfare. One year increase in adult per capita education will lead to 0.7 percent increase in household welfare (expenditure). Age of house hold also has positive effects.

FRP boat owner households show 39.45 percent higher household welfare effect while the same effect in relation to MTR boat owner household and NTR boat owner household are 2.99 percent and 9.6 percent. FRP boat crew member household also have 15.7 percent higher household welfare level. And, MRTB crew member households enjoy 10.84 percent lower household

welfare effect. NTRB crew member household acquire 2.91 percent higher welfare level. In addition, it is obvious that Godawaya posses 50.58 percent higher household welfare level.

Analysis without Social Capital:

Second data column of Table: (12) refers the output of the log-linear analysis without social capital component. In this analysis, the R-squared value has been 0.2756 which is than that of previous analysis – with social capital. This means that 27.56 percent variation in household welfare is explained by the variation in social capital, years of per capita adult education (human capital), and other dependent variable. In fact, this is a 13.12 percent reduction of the explainability of dependent variables due to exclusion of social capital component.

When the variables are regressed without social capital index, it is clear that the effects of household size and human capital have been improved, from 14.88 percent to 16.61 percent in the case of household size and from 0.7 percent to 0.9 percent with respect to human capital.

Without social capital concern, households of MRTB owners, NTRB owners, FRPB crew members, MTRB crew members and NTRB crew members get improved their household their household welfare level relative to the ‘with social capital’ concern.

Without social capital, Godawaya indicates negative effect on household welfare while Rekawa experiences positive but decreasing effect relative to the ‘with social capital’ scenario.

5.17 Effects of each dimensions of social capital - disaggregated social capital index on household welfare:

Table: (13) shows that, out of six social capital dimensions, only two; namely, number of memberships and index of participation in decision making have positive relationships over household welfare. Other dimensions individually show negative effect on household welfare.

Due to increase of one membership, there will be 4.44 percent increase in household welfare. As well, with the increase in the index of participation in decision making, will cause 0.24 percent increase in household welfare.

Heterogeneity index is negatively correlated with household welfare. Unit increase of heterogeneity will reduce the welfare level by 4.44 percent. Unit increase in meeting attendance will lead to 1.16 percent reduction in household welfare.

As in the aggregate model, household size is positively correlated with household welfare according to the results in Table: (13). If the household size is enlarged by one member, there will be 16.44 percent increase in household expenditure.

In addition, years of per capita adult education has a positive effect on household welfare in this disaggregated model too.

Except MTRB crew member, other occupational categories show positive and increasing effect on household welfare.

5.18 Community orientation:

This is also based on the respondents' perception on how much percent the membership of each association originated from the same village itself. Values of community orientation are 96.75 percent, 93.40 percent and 86.01 percent respectively for Godawaya, Kalametiya and Rekawa.

Except 'Samurdhi' association (initiated by the central government comprised of government food stamp recipients who have to be members of the association compulsorily) the other associational memberships are volunteer. Approximately, 95 percent of household in both Godawaya and Kalametiya said that their memberships were voluntary choices while 81 percent household in Rekawa said the same.

5.19 Degree of service receipt:

According to data collected percentage household received the specified services provided by the most important associations in the particular 3 villages. In Klametiya, 66.3 percent of household have obtained education and trainings, for instance on fishing technology, fish preservation techniques, food processing (production of sweets / short eats, and etc.), how to save and invest money, effective household management, entrepreneurship development, and etc. It is 63.8 percent in Godawaya and 51.1 percent in Rekawa.

Receipt of health related services is not common in all 3 regions. The households have received certain trainings / awareness programmes on health Eg. Family nutrition, how to prevent from dengue and malaria.

In all 3 regions, certain household had received assistance, both financial and material with the aim of improving household sanitation. It was clear that, this assistance was mainly to construct water sealed toilets and rarely to construct rainwater harvesting tanks.

Referring the figures related to credit, it is easy to conclude that these associations have given their priority to give financial services, mainly issuance of credits to the members. Nearly, 88 percent of the households in Godawaya, 78 percent household in Rekawa and 77 percent household in Kalametiya had obtained credits from these particular associations.

Lesser percentage of household in all 3 regions have received agricultural inputs or technology as service provided by the associations. It is slightly higher in Rekawa relative to other two regions. These inputs / technology were certain planting materials (such as plants, seeds), fertilizer for home gardening, useful equipments especially for home gardening, some consultancies on home gardening / horticulture.

5.20 Criticisms or sanctions against to the absence from collective action:

At the field level, in all 3 regions , it was experienced that criticisms and sanctions didn't play specific role in keeping people closer to the associations. People showed a higher level of loyalty towards the association. However, in the process of member evaluation in order to issue credits or provide only other assistance, associations usually consider absence from events organized is kind of sanction. And several other associations prevent imposing fines / sanctions, but they advise their members to improve their legitimacy. Some associations ask their members to pay money or to do some other works to compensate the absence.

In Godawaya, around 37 percent household, in Rekawa, 28 percent household and in Kalametiya, 27 percent household intend that criticisms / sanctions are definitely expected due to

the absence from a collective events. And, nearly 23 percent household in Godawaya, 28 percent household in KAlametiya and 24 percent household in Rekawa say that criticisms or sanctions is somewhat likely to be expected. However, at field level, it was clearly obvious that there is a high level of democracy which assures adequate volume of personnel freedom to all members, mostly without discriminations.

5.21 Number of close friends an their income status:

In Godawaya, the average number of close friends available for households is 7.36, and those of in Rekawa and KAlametiya are 6.26 and 6.03 respectively.

Most of the respondent household were either of similar or higher income status. In KAlametiya and Rekawa, most of the closer friends (61.7 percent in Kalametiya and 59 percent in Rekawa) of sample household come from similar income status. Most of them (60.67 percent) belong to higher income status in Godawaya.

5.22 Trust among the people of the community:

Approximately, 70.2 percent of respondent said that most people in Godawaya can be trusted while 61.5 percent household in Rekawa and 41.4 percent household in Kalametiya said the same.; However, interestingly, it can be noticed that 58.6 percent of household revealed that most people in Kalametiya cannot be trusted.

More than half of the sampled household in Godawaya and Rekawa (repectively 54 percent and 56 percent) said that for the last five years (2004 – 2008) trust among the people has gotten better. In Kalametiya, contradictorily, 57 percent of household said that trust among the people has gotten worse during the said period.

5.23 People's togetherness:

In relation to 'Togetherness' of people, 42 percent households in Godawaya, 25 percent households in Kalametiya and 23 percent household in Rekawa have mentioned that people are very close each other, while 38 percent in Godawaya, 48 percent in Kalametiya and 53 percent in Rekawa have revealed that people are somewhat close each other.

5.24 Sociability and opportunities for social interaction:

Respondents were asked how many times (as an average) had met with people in a public places either to talk or to have foods or drinks during the last month. In this regard, respondents in Godawaya said that they attended to such events 5.3 times while respondents in Kalametiya said that they had such chances 5.1 times per the month. Respondents in Rekawa said that they admitted such occasions, 4.8 times per the month considered.

Respondents in Godawaya have participated games / sports or any other recreational activities 4 times per the last 3 months (December, 2007 to February, 2008)). In Kalametiya, it was 4 times per the particular 3 months. In Rekawa it was 3.7 times.

Respondents in Godawaya had participated the events such as 'Village festivals, weddings, religious events, and etc' 10 times per last year (as an average) with their families. It is 7.66 times for Kalametiya and 7 time for Rekawa.

5.25 Sources of government and market information:

The category of 'Relatives, friends and neighbourers' has been selected by 78.72 percent households in Godawaya, 84 percent households in Kalametiya and 72 percent households in Rekawa as the major source of information about the government and its activities. And, 51.2

percent households in Godawaya, 58 percent households in Kalametiya and 50 percent households in Rekawa have selected 'Groups and associations' as their major source of market information.

Interestingly, 100 percent household in Godawaya, 97 percent in Kalametiya and 88 percent households in Rekawa have revealed that their main source of market information is 'Relatives, closer friends and neighbourers'. In the context of receiving market information 'Groups and associations' has been a choice of 48 percent in Godawaya, 56 percent household in Kalametiya and 52 percent household in Rekawa.

(6) CONCLUSION

Based on the findings of the study it can be concluded that there is a positive increasing effect of social capital on household welfare. Human capital shows slightly higher positive increasing effect on household welfare. Investment on social capital can be recommended, if it can be done in orderly, as well as productive manner in order to obtain maximum benefits. The total number of investments on social capital should be manageable to an individual as well as to the community as a whole. Otherwise, returns to investments will be lowered due to diseconomies of scales. For instance, if the number of memberships owned by an individual is unmanageably high, then she will not find enough time to attend the meetings, make good suggestions or criticisms, give enough work or cash contribution. As well there would be reduced opportunities to adequately to be interacted with her own groups or networks.

Interestingly, based on the results of social capital quintiles and the quintiles base on per capita household expenditure, in Godawaya and Kalametiya, people richest with social capital show higher per capita household expenditure levels and greater access to credits. Contrarily, in Rekawa, people richest with social capital exhibit lower household welfare status.

Finally, the answer the question whether social capital helps people to come out from poverty is contextual. In Godawaya and Kalametiya, social capital has been a way for people to come out from poverty while in the context of Rekawa, social capital is not an effective answer for poor to achieve a better household welfare level.

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