IMPACT OF CBR

COMMUNITY-BASED REHABILITATION PROGRAMME IN MANDYA DISTRICT (KARNATAKA, INDIA)

Mario Biggeri, Sunil Deepak, Vincenzo Mauro, Jean-Francois Trani, Jayanth Kumar Y. B., Parthipan Ramasamy, Parul Bakhshi and Ramesh Giriyappa

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Acronyms

ADL	Activities of Daily Living
AIFO/Italy	Italian Association Amici di Raoul Follereau
ARCO	Action Research for CO-development
CA	Capability Approach
CBR	Community Based Rehabilitation
DAR/WHO	Disability and Rehabilitation team, World Health Organization
DFID	UK Department for International Development
DPO	Disabled Persons' Organization
ICF	International Classification of Functioning and disability
ILO	International Labour Organization
LCDIDC	Leonard Cheshire Disability and Inclusive Development Centre
MOB	Maria Olivia Bonaldo rural health centre
PwD	Person with Disabilities
SAG	Scientific Advisory Group
SC	Scheduled Caste
SHG	Self-Help Group
S-PARK/CBR	Samagama Participatory Action Research and Knowledge in Community Based Rehabilitation
SRMAB	Sri Raman Maharishi Academy for the Blind
ST	Scheduled Tribe
TRDC	Trimurthy Rural Development Centre
UCL	University College London
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
UNESCO	United Nations Educational, Scientific and Cultural Organization
VRW	Village Rehabilitation Worker
WHO	World Health Organization

Foreword

It is almost twenty five years since our Association had adopted the Community-Based Rehabilitation (CBR) approach in our projects dealing with rehabilitation activities. In these twenty five years we have worked closely with Disability and Rehabilitation team of World Health Organization (WHO/DAR) and supported CBR programmes in different countries of the world - Bangladesh, Brazil, Egypt, Guyana, India, Indonesia, Kenya, Liberia, Mauritania, Mauritius, Mongolia, Nepal, Pakistan, Somalia and Vietnam.

I am happy to present this first volume of S-PARK/CBR research initiative on impact of CBR programme. This was carried out in nine sub-districts in Karnataka state of India. This research initiative is part of joint plan of work between our Association and WHO/DAR. It is one of the first studies of its kind for a better understanding of CBR in a systematic and scientific way.

S-PARK/CBR research is a complex initiative and is articulated in different phases. It looks at a CBR programme through different point of views - quantitative, qualitative and emancipatory. This first volume presents the quantitative phase of the research.

I would like to thank all the organizations and individuals who have collaborated together for carrying out this initiative.

In my opinion, a rigorous and independent evaluation of our project strategies is important and necessary. This research is part of that effort, to take a critical look with our partners at our work.

I hope that the results of this research will be useful to all governments and organizations involved in CBR programmes, for improving and strengthening these, so that these programmes can contribute to the implementation of International Convention on Rights of Persons with Disabilities.

Dr Anna Maria Pisano

President AIFO

Acknowledgments

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We also wish to thank the team of data collectors and supervisors for their patience and efforts in learning how to carry out the survey and for their outstanding work in the field. We are also grateful to the team of data entry officers for their patience and efforts in learning how to insert the data properly.

We thank AIFO India in Bangalore, and the two partner organizations (SRMAB and MOB) in Mandya district for the high level of commitment to the research project and for their continuous logistical support. They made this survey possible and its contents an important contribution to the impact evaluation of Community Based Rehabilitation (CBR) programmes.

We are indebted to the TRDC (Trimurthy Rural Development Centre) of SRMAB, its personnel and young residents for hosting us in a nice environment and lovely atmosphere during the training period and a large part of the data collection and data entry.

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Executive Summary

A wide variety of very different and complementary approaches are taken in developing countries, such as India, to adequately respond to the needs of persons with disabilities. CBR programmes are considered fundamental for improving the well-being of persons with disabilities, and for fostering their participation in the community and society at large (Cornielje, 2009; Sharma, 2007). CBR programmes are also considered, in theory, to be the most cost effective approach to improving the well-being of persons with disabilities, in comparison with care in hospitals or rehabilitation centres (Mitchell, 1999). The original CBR strategy was to promote the use of effective locally developed technologies to prevent disability, and transfer knowledge and skills about disability and rehabilitation to persons with disabilities, their families and the community at large (WHO, 1976). However, more than three decades later, there is little literature providing evaluations of the impact of CBR programmes on the well-being of persons with disabilities. This can partially be explained by a tendency to concentrate resources on the implementation of CBR rather than on research and evaluation. Within the CBR literature which does exist, there are many identified gaps that pertain to the substantive issues this research seeks to address. Firstly, there are still no universally agreed criteria for the evaluation of CBR programmes (Cornielje, Velema, and Finkenfugel, 2008). Secondly, there is little research available on the effective participation of persons with disabilities, families and communities in CBR. There is therefore little evidence to address the criticism that many CBR programmes are managed using a "top-down" approach, and do not effectively engage with persons with disabilities or their organizations.

Our research project aims to contribute towards filling this gap, using an original methodology — capabilities based on a potential outcomes framework — based on different measurement tools which explore various facets of the programmes' impact. This project is timely as the WHO is collecting information about CBR in order to test their new version of the Community Based Rehabilitation manual (published at the end of 2010). This information will also address the need for more knowledge about how to effectively ensure equal opportunities for persons with disabilities, as emphasized by the UN Convention of the Rights of Persons with Disabilities (2006).

In particular, our research assesses the impact of the CBR approach on the lives of persons with disabilities and their communities in two CBR projects covering the Mandya district and neighbouring areas of Ramanagaram district in South Karnataka State in India.

The overall Research Initiative called S-PARK/CBR (Samagama Participatory Action Research and Knowledge in Community Based Rehabilitation) is organized in three main phases, which are partly consecutive and partly parallel:

Phase 1: Quantitative research based on a large-scale survey of persons with disabilities and some key stakeholders in the areas covered by CBR and in control areas. The present volume reports on this phase of research.

Phase 2: Emancipatory research focusing on the mapping of different barriers faced by persons with disabilities in the communities, their strategies for overcoming these barriers and the part played by the CBR programme. This research is conducted by representatives of persons with disabilities from Mandya district with support from a scientific advisory group.

Phase 3: Participatory research for in-depth understanding of key issues emerging from the first two phases of the research through the introduction of emancipatory research approach in routine CBR activities of the two projects.

Main conclusions

In particular, this volume focusing on Phase 1 presents the three main paths that were investigated during the large-scale survey and their main conclusions. The research obtained relevant results for the literature, and these are detailed in the following chapters of this volume.

Firstly, the research aimed to understand and measure the overall role and impact of CBR in improving the quality of life of persons with different types of impairments, as well as different demographic, social and economic backgrounds. Quality of life is determined in the capability approach framework by the freedom of people to do and to be what they value (Sen, 1999). Therefore, we investigated the effectiveness of CBR programmes in improving the control that persons with disabilities have over their daily lives, participating in different aspects of community life (i.e. combating stigma and prejudice), and accessing various services, over the five domains of the CBR matrix (health, education, livelihood, social and empowerment). Furthermore, we examined to what extent persons with disabilities involved in the CBR programmes are improving their socio-economic conditions, and therefore escaping from multidimensional poverty (Sen, 1992). We found that the CBR programmes have rather a positive impact on the well-being of persons with disabilities in the examined district in most areas of intervention: health, education, livelihoods (including opportunity for employment), disability rights, and social participation. It is also relevant to notice that the findings show that participation in CBR has an impact in terms of changing mentalities and fighting prejudice and exclusion.

Secondly, we investigated the factors which constitute barriers to access CBR activities and support. The research should highlight whether the CBR programmes are completely inclusive of all groups of individuals with disabilities. The results on the CBR coverage are very relevant since they disentangle the question of inclusion and access to CBR activities. Almost 60% of persons with disability are part of CBR. Furthermore the persons who are not part of CBR are less poor, have more mild disabilities and are older.

Thirdly we tried to capture spillover effects of CBR – i.e. if in the area of CBR activities there is an effect on the well-being of other persons from the community, such as the caregivers, and on the community social environment through the heads of villages, social workers and teachers. We found evidence of spillover effects in the community of the area of CBR both at village level and for individuals such as the caregivers.

Introduction

The UN Convention on the Rights of Persons with Disabilities (UNCRPD, 2006) states that comprehensive rehabilitation services involving different types of interventions – including medical and social – are needed to ensure the equal rights and participation of persons with disabilities in societies.

A wide variety of very different and complementary approaches are taken in developing countries, such as India, to adequately respond to the needs of persons with disabilities. As defined in the 2004 position paper adopted by WHO, ILO and UNESCO, CBR is "a strategy within general community development for the rehabilitation, equalization of opportunities and social inclusion of all people with disabilities. CBR is implemented through the combined efforts of people with disabilities themselves, their families, organizations and communities, and the relevant governmental and non-governmental health, education, vocational, social and other services" (ILO, UNESCO and WHO, 2004, p. 2). This strategy "promotes the rights of people with disabilities to live as equal citizens within the community, to enjoy health and well-being, to participate fully in educational, social, cultural, religious, economic and political activities" (ILO, UNESCO and WHO, 2004, p. 4). The 2010 CBR guidelines (WHO, 2010a) are based on the principles of the UNCRPD, as well as on empowerment including self-advocacy and sustainability.

According to DFID, under certain conditions, it is estimated that 80% of rehabilitation needs could be met through the use of CBR (DFID, 2000, p. 10). CBR programmes are also considered, in theory, to be the most cost-effective approach to improve the well-being of persons with disabilities, in comparison with care in hospitals or rehabilitation centres (Mitchell, 1999). Although it is important to acknowledge (WHO, 2010a) that often the success of CBR relates to the programme's capacity to collaborate with public and private institutions such as hospitals.

CBR programmes are considered fundamental to improve the well-being of persons with disabilities and for fostering their participation in the community and society at large (Cornielje, 2009; Sharma, 2007). The original CBR strategy was to promote the use of effective, locally-developed technologies to prevent disability, and transfer knowledge and skills concerning disability and rehabilitation to people with disabilities, their families and the community at large (WHO, 1976; WHO 1978).

However, more than three decades later, there is little literature providing an overall and scientifically sound evaluation of the impact of CBR programmes on the well-being of people with disabilities. Has the CBR wider goal – equalization of opportunities and social inclusion of all persons with disabilities – been achieved? In what ways has the programme changed the lives of persons with disabilities and their families? What effect has the programme had on the community in terms of its attitudes and behaviour towards persons with disabilities?

This research gap can partially be explained by a tendency to concentrate limited resources on the implementation of CBR rather than on research and evaluation. Furthermore, within the CBR literature which does exist, there are many identified gaps that pertain to the substantive issues this research seeks to address. First, there are still no universally agreed criteria for the evaluation of CBR programmes (Finkenflugel, Cornielje and Velema, 2007; Alavi and Kuper, 2010). Second, there is very little research available on the effective participation of persons with disabilities, families and communities in CBR. There is therefore little evidence to address the criticism that many CBR programmes are managed using a "top-down" approach, and do not effectively engage with persons with disabilities or their organizations.

Sharma (2007) carried out an analysis of evaluation reports of 22 CBR programmes in 14 countries and found that only six of them measured outcomes related to community participation. Among those six, only three included a quantitative measurement of community participation. Most of the existing research on CBR focuses on accessibility, importance of the programme, identification of needs and specific outcome.

According to a more recent survey, research on CBR in low-income countries has increased dramatically in recent years, both in quality and quantity (WHO, 2010a; WHO, 2010b). Alavi and Kuper (2010), for example, identified a total of 51 studies evaluating the impact of rehabilitation on persons with disabilities in Africa, Asia and Latin America. Given the scope of the study – that of a worldwide survey of research and methods – the literature is still limited, especially when trying to determine the overall impact.

The 51 eligible studies identified by Alavi and Kuper are presented according to different characteristics, such as the populations (adult, children or specific age classes), impairment categories, geographical distribution and evaluation design (Alavi and Kuper, 2010, pp. 30-33). According to Alavi and Kuper the type of study design was quasi-experimental (QE) in 19 studies, randomized controlled trials (RCT) in 16 studies and case-series in 14 studies. "All but 2 of the RCTs evaluated interventions and services for people with mental illness. Half of the case-series studies evaluated CBR programmes. Only 2 studies evaluating CBR programmes or services used a comparison group" (Alavi and Kuper, 2010, p. 29). Please note that one of the two trials is this study (both were still in progress at the time of the literature survey).

To appraise a CBR programme, evaluation of community involvement, together with an assessment of the coverage of needs of persons with disabilities (in terms of service delivery, technology transfer) and their economic and social inclusion, is essential.

In the International Consultation on CBR (Helsinki, 2003) different countries and international organizations presented challenges faced by CBR programmes. For example, in Cambodia many persons in rural areas cannot access the community-based programmes and persons with certain types of disabilities (such as learning disabilities and mental illness) are ignored (Sisovann, 2003). At the same time, Disabled Persons' Organizations (DPOs) raised doubts about the capacity of CBR workers to answer the needs of persons with different disabilities and felt that they could even be detrimental (Heilbrunn and Husveg, 2003). The existing research had little information on such issues.

A major concern is that a large number of persons with disabilities are left out by CBR programmes (WCPT 2003). Who are these people? Which characteristics do they have? The final report of International Consultation on CBR (WHO, 2003) concluded that some groups may be marginalized by CBR, including deaf persons and people with intellectual and psychiatric disabilities. Again, research to support such claims is very limited. There is a lack of evidence regarding perception of CBR programmes by participants and about successes and failures of CBR activities.

For these reasons AIFO/Italy discussed with the Disability and Rehabilitation team of World Health Organization (WHO/DAR) the usefulness of carrying out a comprehensive study on the impact of CBR, aiming to utilize a number of different research approaches in its assessment. It was decided to identify a CBR project covering a significant population and 5-7 years of CBR implementation in the field. After discussions with different project partners, finally two AIFO supported projects based in Mandya district were identified. A discussion with representatives

of persons with disabilities in Mandya district led to the decision to call this research initiative – Samagama Participatory Action Research and Knowledge in CBR (S-PARK/CBR). A tentative three-year research plan was prepared for approval by the AIFO Board and agreed with WHO/DAR.

S-PARK/CBR Research Initiative is organized in three main phases that are partly consecutive and partly parallel:

Phase 1: Quantitative research based on a large-scale survey of persons with disabilities and some key stakeholders in the areas covered by CBR and in control areas. The present document reports on this phase of research.

Phase 2: Emancipatory research focusing on the mapping of different barriers faced by persons with disabilities in the communities, their strategies for overcoming these barriers and the part played by the CBR programme. This research is conducted by representatives of persons with disabilities from Mandya district with support from a scientific advisory group.

Phase 3: Participatory research for in-depth understanding of key issues emerging from the first two phases of the research through the introduction of emancipatory research approach in routine CBR activities of the two projects.

This volume deals with Phase 1 of the quantitative research through a large-scale survey.

In order to assess the scientific accuracy of the quantitative research a Scientific Advisory Group (SAG) was created. The SAG met in Bangalore in April 2009 and reviewed the research questionnaire aimed at interviewing persons with disabilities. Appendix 3 provides the list of persons who participated in the first SAG meeting.

This research aimed to contribute towards filling the gap between theoretical concepts and actual practice of CBR in the field, using both an original methodology and different measurement tools which explore various facets of the programmes' impact. This research project is timely, as it addresses the WHO's need to collect more information about CBR in order to test its new version of the CBR manual (2010). This information will also address the need for more knowledge about how to effectively ensure equal opportunities for persons with disabilities, as emphasized by the recently ratified UN Convention on the Rights of Persons with Disabilities.

In this research, the CBR matrix and the Capability Approach (CA) (Sen, 1999) are combined to build an innovative and comprehensive theoretical framework for CBR evaluation illustrating the quantitative research; it is the product of a joined effort of several institutions (AIFO/Italy, AIFO India, University of Florence lab ARCO -Action-Research for CO-development-, University College London and, in particular, the Leonard Cheshire Disability and Inclusive Development Centre, as well as other organizations and institutions that took part in the SAG), researchers and collaborators with support from WHO/DAR. The main aim of the research is the assessment of the impact of the CBR approach on the lives of persons with disabilities and their communities in two CBR projects covering the Mandya district and a limited part of the Ramanagaram District in Karnataka State in India. The areas covered by the two CBR projects have a total population of 2.2 million persons with about 22,000 persons with disabilities. The CBR activities started in limited areas of Mandya district in 1997 and were gradually extended to cover all of Mandya district and two sub-districts of neighbouring Ramanagaram district.

In particular, this research had three main objectives.

Firstly, the research aimed to understand and measure the overall role and impact of CBR in improving the quality of life of persons with different types of impairments, as well as different demographic, social and economic backgrounds.

Secondly, we investigated the factors which constitute barriers to access CBR activities and support. We wanted to highlight whether the CBR programmes are completely inclusive of all groups of individuals with disabilities.

Thirdly we tried to capture some spillover effects of CBR – i.e. if in the area of CBR activities there is an effect on the well-being of other persons from the community, such as the caregivers, and on the community social environment through the heads of villages, social workers and teachers.

Organization of the volume

This volume is divided into two parts, for a total of six chapters.

The first part (chapters 1-2) presents the research backgrounds and methodologies. The first chapter presents the research background and the theoretical approach used to frame the instruments and to interpret the results. The second chapter reports the methodology used throughout the research including sample design, questionnaire design and the ethical clearance.

The second part of the volume (chapters 3-6) presents the research findings. In the third chapter, the population characteristics and resources are illustrated. In the fourth chapter the effects of CBR on persons with disabilities are presented both through a descriptive analysis and an impact evaluation through propensity score matching. Chapter five is dedicated to the issue of CBR coverage, while the sixth chapter concerns the effects of CBR activities on different stakeholders, such as caregivers, Anganwadi workers (nursery teachers), village rehabilitation workers (VRWs), Self-Help Group (SAG) representatives, and Gram Panchayat (village council) representatives.

The main conclusions are reported at the end of the volume.

FIRST PART

BACKGROUND, THEORETICAL INSIGHTS AND METHODOLOGY

Chapter 1.
Research Background and Theoretical Insights

1.1 Research Background

Disability in India

In 2001, the National Census collected information about persons with disabilities in India for the first time. The census identified 21.9 million persons with disabilities, 2.2% of the population of India (Thomas, 2005).

According to another survey undertaken by the Government of India (TAC, 2006), in 2002 the number of persons with disabilities in the county was estimated to be 18.5 million, about 1.8% of the total population. About 10.63% of persons with disabilities had multiple disabilities. However, this survey did not include persons with mental illness and persons with epilepsy.

Prevalence of disability in India is considered to be underestimated due to several reasons: terminology used for defining persons with disabilities, stigma and prejudice are the most commonly acknowledged. In particular, persons with disabilities among Scheduled Caste (SC) groups may need to have more severe disabilities before they are acknowledged as being disabled (Singal, 2008).

A World Bank study (HDU/WB, 2007) on the situation of persons with disabilities in India concluded that there are substantial differences in socio-economic outcomes, social stigma, and access to services according to the type of disability. People with mental illness, intellectual or learning disability are particularly deprived and at risk of marginalization. As with the general population, major urban/rural differences in outcomes have been observed. The study also considered poor education outcomes as a major issue for children with disabilities: compared with non-disabled children, the out-of-school rate for children with disabilities was very high.

Disability in Karnataka State

In Karnataka State (Bhandari and Kale, 2009), the literacy rate is 76.1% among males and 56.9% among females, 49.8% of boys and 50.2% of girls drop out of the school before completing 8 years of education and 20.7% of the population is below the poverty line. The main religious groups in the state are Hindus (83.86%), Muslims (12.23%) and Christians (1.91%). 71.2% of houses in urban areas and 48% of houses in rural areas have access to piped water supply. 82.7% of houses in urban areas and 21.9% of houses in rural areas have access to toilets connected to drainage system.

According to 2006 data, Mandya district has a total population of 1.8 million persons while Ramanagaram district has a total population of 1 million persons. In Mandya district, 14% of the population belongs to SCs and 1% of the population belongs to Scheduled Tribes (ST).

The situation is different in Ramanagaram district, where SCs constitute 24.6% of the population and STs 11%. About 70% of the population in Mandya and Ramanagaram districts is occupied in agriculture-related activities.

The different taluks (sub-districts) covered by the two CBR projects have the following populations (2001 National Census, Government of India) as reported in Tables 1 and 2:

Table 1: Population in taluks (sub-districts) of Mandya District covered by two CBR projects

No.	Name of the taluks (NGO managing CBR)	Population		
		Male	Female	Total
1	K.R.Pet (SRMAB)	123531	124714	248245
2	Maddur (SRMAB)	146707	144076	290783
3	Malavally (SRMAB)	143422	138387	281809
4	Mandya (MOB)	205798	199814	405612
5	Nagamangla (MOB)	94186	96584	190770
6	Pandavpura (MOB)	87458	87551	175009
7	S.R. Patna (MOB)	82625	110359	192984
TOTAL		**883727**	**901485**	**1785212**

Source: 2001 National Census, Government of India

Table 2: Population in two taluks (sub-districts) of Ramanagaram district covered by two CBR projects

No.	Name of the taluks (NGO managing CBR)	Population		
		Male	Female	Total
1	K.R.Pet (SRMAB)	127071	125503	252574
2	Maddur (SRMAB)	122083	116264	238347
TOTAL		**249154**	**241767**	**490921**

Source: 2001 National Census, Government of India

Thus, according to the 2001 National Census, the total population covered by the two CBR projects includes 2,276,133 persons.

The Persons with Disabilities Act of India (1995) allocates a 3% quota in all poverty alleviation programmes and schemes of the government for persons with disabilities, with unequal success in implementation across states of India. However, Karnataka State has successfully implemented its 3% quota in all the poverty eradication programmes of the state (Kumar, 2009).

CBR programmes' background

AIFO, CBR and India

AIFO initiated a number of CBR projects with technical support from WHO/DAR at the end of 1980s, as a strategy to respond to the needs of persons with disabilities due to leprosy, integrating other persons with disability. Initially these CBR projects focused only on health-related aspects of rehabilitation. Over the past 20 years, AIFO-supported projects have become multi-sectoral, active in all the five domains of the CBR matrix, though the focus continues to be on health and

empowerment related issues. In this period, AIFO has undertaken a number of research initiatives that have contributed to the work of WHO/DAR. At present, AIFO is supporting CBR programmes in countries in Asia, Africa and South America.
AIFO has been active in India for the last fifty years. The first workshops to promote the concept of CBR in India were organized by AIFO in early 1990s. At present AIFO supports partner organizations running CBR programmes in 5 states of India. AIFO's work in India is managed by Amici India that manages its Coordination office based in Bangalore (Karnataka).

CBR in Mandya district

The CBR approach has been implemented in different parts of the world in very different ways. In Mandya district (situated in Karnataka State between Bangalore and Mysore, see Figure 1), CBR was implemented through a participatory development approach with active participation of persons with disabilities at all levels, also using also SHGs and under the framework of the five domains of the CBR matrix.

In Mandya District AIFO has been collaborating with two partners, MOB (Maria Olivia Bonaldo) and SRMAB (Sri Raman Maharishi Academy for the Blind). The two CBR projects managed by these two Non-Governmental Organizations (NGO) reach and directly benefit around 22,000 persons with disabilities from different age groups and with different types of disabilities. These persons with disabilities live in rural, semi-urban and urban areas.

MOB is a faith-based NGO that started collaborating with AIFO in 1994 for leprosy control activities in Mandya district and then, in 1998-99, expanded into social and development sectors, including CBR activities.

SRMAB is an NGO voluntary organization that started with an institute for blind persons in Bangalore and later on expanded into CBR programmes in some rural areas in Karnataka. Since 1997 AIFO has been supporting SRMAB in CBR-related activities in Mandya and Ramanagaram districts.

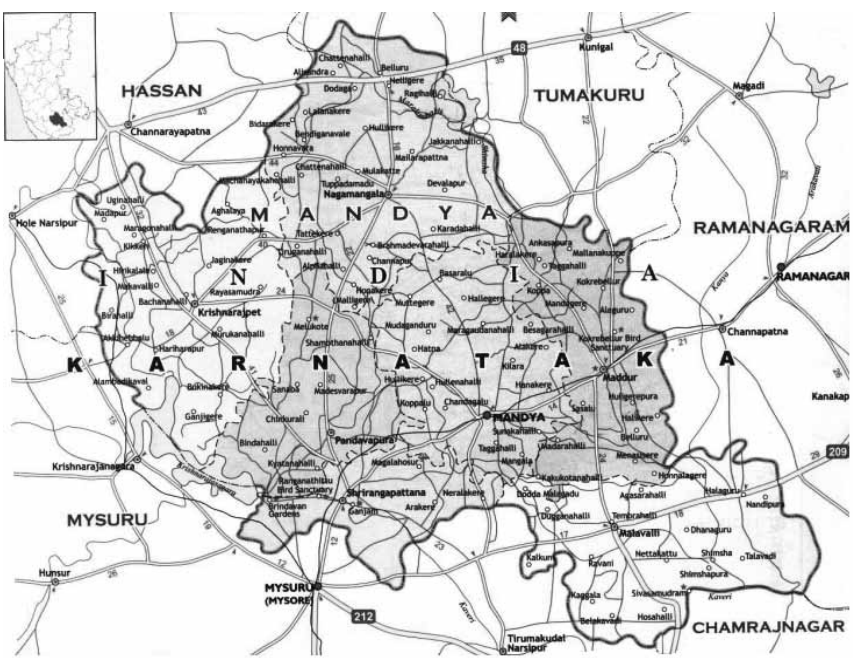

Figure 1. Map of Mandya District

Both CBR programmes have adopted similar methodologies of working through trained CBR workers supported by a CBR supervisor at taluk level and a project coordinator, based on strategies of mainstreaming, participation and inclusion. The CBR programmes work with the active involvement and collaboration of persons with disabilities, their families and their local communities through SHG. Both CBR programmes work with all the different groups of persons with disabilities as identified in the WHO CBR manual (1989): vision, hearing and speech, movement, loss of sensation, convulsions, mental illness, intellectual and multiple disabilities. The different activities of CBR programmes cover all five different areas of the CBR Matrix (health, education, livelihood, social and empowerment) (WHO, 2010a).

"Mandya CBR Project" managed by MOB started in 1998 in 4 villages, and now reaches up to 95% of villages spread over 4 taluks of Mandya district, involving more than 11,000 people with various types of disabilities. The 4 taluks are Mandya, Nagmangala, Pandavpura and Sri Ranga Patnam.

The CBR project managed by SRMAB (also called Malavalli CBR Project) started in 1997 in 25 villages, and now reaches around 1300 villages spread over 5 taluks, including 3 taluks in Mandya district (K.R. Pet, Muddur and Malavalli) and 2 taluks in neighbouring Ramanagaram district (Channapatna and Ramanagaram). This project reaches out to another 11,000 persons with different disabilities.

In Tables 3 and 4, information about persons with disabilities involved in CBR activities is reported for MOB and SRMAB (2008) respectively. Some information was used for planning this research and other information, related to SHGs and DPOs is reported as well. About one third of the persons involved in CBR programme are members of SHGs and/or DPOs.

This information, collected routinely by the two CBR projects through a monitoring system, was used as the database for the sampling design. It was also a source for control of the quality of the data collected during the present study. Both projects complete a "Need Assessment Form" whenever a new participant in the programme is identified which is then updated periodically.

This information is used for the monitoring of the CBR activities. It provides information about the actions taken and any significant changes in the participant's background are recorded.

The two CBR projects work in a large geographical area with a big population, through a limited number of trained CBR workers. Each CBR worker looks after 15-25 villages. Thus the two CBR projects work, wherever possible, through SHGs of persons with disabilities, and in these areas their support to individual persons with disabilities and their families is more limited. Over the past couple of years, some of the village councils have appointed a Village Rehabilitation worker, who is usually an ex-CBR worker.

It is important to note that the partners involved in the CBR programmes have not only been regularly monitoring their project activities, but had also carried out some relevant research in the past decade. For example, in 2002, a review of the integration process between leprosy related activities and CBR activities was carried out through the organization of focus group meetings with leprosy-affected persons and other persons with disabilities involved in the two CBR projects. An external review of the two CBR projects was carried out in 2004.

Table 3. Persons with disabilities, SHG, DPO involved in SRMAB Programme (2008)

TOTAL PERSONS WITH DISABILITY RECEIVING ANY KIND OF BENEFIT FROM PROJECT											
Type of Impairment											
Type of Impairment	Children				Young Adults		Adults		TOTAL		GRAND TOTAL
	Age 0-5 Yrs		Age 6-15 Yrs		Age 16-35 Yrs		Age +36 Yrs				
	M	F	M	F	M	F	M	F	M	F	
Visual	2	2	105	59	254	197	206	109	**567**	**367**	**934**
Hearing & Speech	5	3	259	176	560	440	359	232	**1183**	**851**	**2034**
Physical	21	11	442	280	1609	1022	1488	718	**3560**	**2031**	**5591**
Leprosy	0	1	12	11	80	52	157	105	**249**	**169**	**418**
Convulsions	21	8	71	47	83	61	37	21	**212**	**137**	**349**
Mental illness	0	0	0	0	9	4	13	10	**22**	**14**	**36**
Intellectual	8	5	230	148	414	380	97	67	**749**	**600**	**1349**
Multiple/others	7	3	89	57	60	47	25	13	**181**	**120**	**301**
TOTAL	**64**	**32**	**1206**	**773**	**3039**	**2202**	**2382**	**1275**	**6723**	**4289**	**11012**

2. SELF-HELP GROUPS UNDER THE PROJECT	NUMBER
Total number of self-groups present in the project area	147
Total number of persons who are members of self-help groups	2179
Among the members of self-help groups, total number of persons with disabilities	1921
Among members of self-help groups, total number of CBR volunteers	33

3. DPO GROUPS UNDER OR COLLABORATING WITH THE PROJECT	NUMBER
Total number of DPO groups present in the project area	6
Total number of disabled persons who are members of DPO groups	1047
Total number of family members of disabled persons who are members of DPO groups	40

4.BENEFICIARIES OF SPECIFIC ACTIVITIES	M	F	TOTAL
Appliances, mobility aids, etc.			**319**
Education, learning, play, development related activities			**1303**
Loans, vocational training, income generation related activities			**849**
Home visits			**11012**

Table 4. People with disabilities, SHG, DPO involved in SRMAB Programme (2008)

TOTAL PERSONS WITH DISABILITY RECEIVING ANY KIND OF BENEFIT FROM PROJECT											
Type of Impairment											
Type of Impairment	Children				Young Adults		Adults		TOTAL		GRAND TOTAL
	Age 0-5 Yrs		Age 6-15 Yrs		Age 16-35 Yrs		Age +36 Yrs				
	M	F	M	F	M	F	M	F	M	F	
Visual	18	34	82	77	184	141	179	152	**463**	**404**	**867**
Hearing & Speech	63	66	203	187	418	353	262	192	**946**	**798**	**1744**
Physical	183	164	539	403	1509	1089	1492	700	**3723**	**2359**	**6079**
Leprosy	0	0	3	6	13	14	74	28	**90**	**48**	**138**
Convulsions	8	9	17	9	9	13	7	5	**41**	**36**	**77**
Mental illness	0	0	2	0	31	38	29	18	**62**	**56**	**118**
Intellectual	54	48	196	180	312	281	74	72	**636**	**481**	**1271**
Multiple/others	53	64	117	112	138	102	56	82	**364**	**360**	**724**
TOTAL	379	385	1159	974	2614	2031	2173	1249	**6325**	**4542**	**11018**

2. SELF-HELP GROUPS UNDER THE PROJECT	NUMBER
Total number of self-groups present in the project area	263
Total number of persons who are members of self-help groups	4334
Among the members of self-help groups, total number of persons with disabilities	4182
Among members of self-help groups, total number of CBR volunteers	11

3. DPO GROUPS UNDER OR COLLABORATING WITH THE PROJECT	NUMBER
Total number of DPO groups present in the project area	4
Total number of disabled persons who are members of DPO groups	458
Total number of family members of disabled persons who are members of DPO groups	107

4.BENEFICIARIES OF SPECIFIC ACTIVITIES	M	F	TOTAL
Appliances, mobility aids, etc.	105	82	187
Education, learning, play, development related activities	426	394	820
Loans, vocational training, income generation related activities	972	1610	2582
Home visits	369	3050	3419

Objectives of the Research

This phase of the research (quantitative research) included three distinct objectives that are partly consecutive and partly parallel.

Firstly, the main goal of the research was to understand and measure the overall role and impact of CBR in improving the quality of life of persons with different types of impairments, as well as different demographic, social and economic backgrounds. Quality of life is determined by the freedom of people to do and to be what they value (Sen, 1999). We therefore investigated the effectiveness of CBR programmes in improving the control that persons with disabilities have over their daily lives, their participation in different aspects of community life (i.e. combating stigma and prejudice) and their access to various services over the five domains of the CBR matrix (health, education, livelihood, social and empowerment) (WHO, 2010a). Furthermore, we examined to what extent persons with disabilities benefiting from the CBR programmes are improving their socio-economic conditions, and therefore escaping from multidimensional poverty (understood here as a deprivation of basic capabilities such as life expectancy, infant mortality, the ability to be well nourished and well sheltered, basic education, employment and health care; Sen, 1992).

Secondly, we explored whether the CBR programmes are completely inclusive of all groups of persons with disabilities.

Thirdly we try to capture spillover effects of CBR – i.e. if in the area of CBR activities there is an effect on the well-being of other persons from the community, such as the caregivers, and on the community social environment through the village councils, VRW and *Anganwadi* workers.

Preliminary observations

Initial discussions were held between AIFO and DAR/WHO in January 2009, on the usefulness of including some specific tools (such as Quality of Life questionnaire and Participation scale) in the survey questionnaire. A basic research plan and a draft questionnaire were then prepared. A SAG that met in Bangalore in April 2009, was formed. During this meeting the research questionnaire was reviewed, the selection of tools was discussed and the impact assessment research programme was defined. Several issues linked to the sampling design, the construction of the tools (training tools, the supervisor manual and the questionnaires) and the data analysis plan were also discussed during this meeting and at length during 2009 between the authors of the present work.

A first issue concerned the two distinct neighbouring geographical areas of impact assessment. The coverage of CBR projects in the nine sub-districts comes, as already mentioned, under two different organizations, SRMAB and MOB. Although both CBR projects have adopted similar methodologies of using trained CBR workers, the two organizations have different backgrounds and their approach to CBR could have been different in many ways.

A second issue was the level of coverage of both CBR projects. The two CBR project coordinators claimed that their CBR activities are reaching all persons with disabilities. They felt that the only exception could have been elderly persons or persons with mild disabilities. This needed to be verified.

Another issue to be considered was the characteristics of the persons with disabilities involved in CBR activities. For sampling purposes, different variables needed to be considered, including age, type of disability, severity of disability, gender, caste/religion, economic status, educational status.

We used the WHO manual on CBR for the definition of seven disability types: vision, hearing and speech impairment, mobility restrictions, loss of feeling, fits, strange behaviour and learning disabilities. An additional group includes those persons with more than one kind of disability (multiple) and those persons who do not fit in any other group such as persons with albinism and short persons. We also considered three groups of persons with disabilities according to the severity of their disabilities: mild, moderate and severe[1] .

We argue that caste and religion play a significant role in determining access to different services in India. They influence economic status, cultural practices, attitudes, social support networks, etc. At the same time, caste and religion are sensitive (and ethical) issues. Access to this information was possible through the project records of the CBR programmes. However the SAG decided not to use this information at the time of survey to avoid bias and refusal. The CBR team was asked to gather the information but this was not feasible in the control group areas.

We assumed that the economic status of people with disabilities and of their families influences access to services and all dimensions of life. Hence the size of the land owned and the different categories of goods possessed were taken into account in the design of the questionnaire to proxy the economic status. Similarly questions were included in the questionnaire to assess the level of education as well as the reading and writing skills.

Furthermore, the length of time a person had been involved in the CBR programme is key information. It was supposed that persons who had been associated with the CBR programme for longer periods may have received more benefits. Persons who had been associated for longer periods may have established stronger emotional or other links with the CBR programme and thus may be more positive about the impact of the CBR on their lives. At the same time, longer association could have also led to "getting used" to the CBR programmes and to taking them for granted. On the other hand, persons who had been associated for shorter periods may be more enthusiastic about the programme, especially if previously they had not received any attention or were not accessing services. Entering the CBR programme is usually associated with some types of benefits such as access to services (for details see later), devices and certification within a year or two. Other interventions related to fighting exclusion, promoting autonomy and empowerment might take longer, meaning that CBR programmes need more time in order to be effective in some specific domains. Therefore, the research team decided to ask for information, in the questionnaire, about time of entry and type of support received.

The research team considered including important information such as age, marital status, family size and gender of the head of household in the questionnaire.

Another important aspect for discussion was the role of family members of persons with disabilities during the survey process. In particular, they were key informants in the case of very young children and in the case of persons with specific disabilities. The SAG acknowledged that caregivers, the community at large, SHGs, teachers and rehabilitation workers not only play a relevant role in the well-being of persons with disabilities but are also involved in the CBR programme and may benefit indirectly from it. The CBR approach, as well as the Capability Approach (CA), considers community ownership and participation as central to well-being.

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[1] The WHO manual on CBR uses 23 questions to assess the person's autonomy in activities of daily living. These questions can be the basis for criteria to assign the severity of disability into mild, moderate and severe.

[2] In 2003 the Helsinki recommendations highlighted the need for CBR programmes to focus on:

Thus, measurement of aspects, such as mobilizing community resources and support, community attitudes, access and opportunities available to persons with disabilities were taken into account in the survey.

Both SRMAB and MOB work at the community level with paid staff (CBR workers, supervisors, specific support persons such as physiotherapists and social workers), whose roles and understanding about positive and negative aspects of their work would be useful in understanding the impact of the CBR programmes. Therefore this aspect needed to be included in S-PARK/CBR research.

The CBR approach looks for active involvement of persons with disabilities and their organizations in the planning, implementation, monitoring and evaluation of CBR programmes. Promoting the setting-up and strengthening of existing DPOs is a key aspect of the CBR approach. Collecting information about DPO membership and their relationship and participation in the CBR programmes, was considered fundamental and relevant in the survey.

Persons with disabilities who had been part of the CBR programme, but were no longer involved at the time of assessment, needed to be included in the process. It was felt that there could be different reasons why persons leave a programme - persons may leave if they have achieved good results and no longer need it, or if they are unsatisfied with the programme or if they face barriers to their participation. Their point of view could be important in understanding the impact of CBR programmes. This issue was taken into consideration during the survey.

Other services and programmes existing in the programme areas, including governmental, non-profit and for-profit services and programmes that may have a relationship with the activities of CBR programmes needed to be considered. Their opinions and collaborations with the CBR programme could add important information to the evaluation. This information was collected separately.

Research plan

The quantitative research part of S-PARK/CBR initiative has been carried out in the following four phases (see Figure 2): the preparatory phase, the implementation phase, the data and information analysis phase, and finally, the diffusion of impact assessment findings phase – of which this book is an important output. During the whole period, the various partners involved in this research maintained a good degree of information exchange and participation as a key element of the overall research.

Figure 2. The research phases and work-programme

Action		2009				2010												2011											
Infortmation/participation		**January**	**October**	**November**	**December**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
First Phase Preparatory phase (first meeting April 2009)	Preparatory phase and questionnaire elaboration		First draft questionnaire and local research to improve the survey																										
	Sample disign and selection		Design																										
Second phase - Implementation phase	Training of interviewers and supervisors			12 days																									
	Questionnaire back translation and Pilot survey				10 - 18 december																								
	Main survey				started 18/12/2009																								
	Data entry (double)					d. e. training																							
Thiird Phase data analysis and information analysis	Quantitative and qualitative analysis																												
	Data Management																												
	Chech for data consistency																												
	Data recollecting																												
	Data analysis																												
	Report writing																												
	Articles writing																												
Fourth phase diffusion of impact assessment	Presentation																												
	Dissemination of the results and pubblications																												

Phase 1: Preparatory Phase from January to October 2009

Preparation of a basic research plan which was discussed with WHO/DAR, the AIFO Coordination office in India and with the two partners for their comments. Activities in this phase are:

Identification of institutional partners (at least relevant departments from academic institutions from India and Italy) and defining of roles, and responsibilities.

Identification of the Scientific Advisory Group from different stakeholders, including representatives of persons with disabilities from the local communities in Mandya.

Preparation of the budget for the first phase and its approval along with that of the basic research plan by the Board of AIFO.

Identification of a research coordination group in India, including representatives of persons with disabilities.

A Desk review of existing reports, data and other documents from general sources, published and unpublished articles and reports, official documents from the two projects, from the AIFO office in India and the AIFO office in Italy. Preparation of a desk review report.

Preliminary information collection from different stakeholders necessary for the preparation of a detailed research plan, including decisions about methodology such as use of structured and semi-structured interviews, questionnaires, group discussions.

Information collection including village size, location, distance from sub-district headquarters, distance from road, presence of primary school, presence of health centre and identification of sample villages to be covered in the survey.

Elaboration of different questionnaires, outlines for interviews, plans for the training of data collectors, plans for data collection and plans input of data for analysis. Review of all the different organizational aspects for carrying out of the research.

Phase 2: Implementation phase (data and information collection and data input for analysis) from November 2009 to May 2010

This phase covers the training of data collectors, data collection and data entry. More details about these activities are given later in this volume.

Phase 3: Data analysis and information analysis (verification of data with stakeholders and communities) from June 2010 to February 2011

Different activities of phase 3 included - preliminary data analysis, additional field visits for data correction and analysis. Details of these activities are given later. Report writing and writing of articles for conferences and scientific journals were also initiated during this phase.

Phase 4: Diffusion of impact assessment findings from March 2011 to March 2012

A plan for diffusion of the research results was prepared with the following objectives:

- *Sharing the research results* with two CBR projects, persons with disabilities, DPOs and other local stakeholders in Mandya and Ramanagaram districts, for feedback and to understand the significance of key research findings.
- *Sharing the research results* with policy makers, decision makers and other key stakeholders in Karnataka and India to promote discussions on key research findings and their implications for the organization of services for persons with disability.

- *Presenting research findings* to key international stakeholders including WHO/DAR, international organizations involved in CBR, academics and researchers involved in areas of disability and rehabilitation, evaluation, impact assessment and other related areas of development.

To reach these objectives, different activities have been planned in India and at international level including – publication of this volume with detailed findings for academics and researchers and other publications targeted at specific stakeholders; participation in meetings, conferences and congresses; organization of meetings with key stakeholders; articles for peer-reviewed scientific journals; sharing of key research results though mailing lists, blogs and web.

This report is the first of three planned volumes of printed books about the S-PARK/CBR research initiative. Reports and other information about the research have been shared through mailing lists (Global Partnership for Disability and Development - GPDD list, Peoples' Health Movement - PHM list), CBR blog and AIFO/Italy website (www.aifo.it/english/).

Some activities for sharing the research results have already been carried out. The meetings organized for sharing key results with specific stakeholders included:

- *Local stakeholders in India:* In April 2011, key results of the research were presented for feedback and comments to about 30 representatives of persons with disabilities and to representatives of SHGs and DPOs from Mandya district; to 60 CBR workers and supervisors working in the two CBR projects; and to some representatives of DPOs and NGOs working with persons with disabilities including the State Disability Commissioner in Karnataka.
- *Academics and researchers:* Results were presented at the University of Florence (Italy) and at University College London (United Kingdom); to members of the SAG for phases 2 and 3 of S-PARK/CBR research initiative; Seminar "Equitable health services for people with disabilities", London School of Hygiene and Tropical Medicine LSHTM, London, 8 November 2011
- *International stakeholders* - Results were presented to: representatives of governmental, non governmental and academic institutions involved in disability issues at a meeting organized by WHO/DAR, in Geneva, Switzerland; to representatives of member organizations of International Disability and Development Consortium in Prague, Czech Republic; to the Technical Commission of International Anti-Leprosy Associations (ILEP) in London; and to researchers from CBR programs in Asia and Pacific region in Manila, Philippines.

Conferences included:

"Measuring the impact of a Community Based Rehabilitation programme in Karnataka State of India: Are rights and capabilities of PwD advancing together? Initial considerations and preliminary results", paper presented at the 2010 Human Development and Capability Association (HDCA) Conference on *Human Rights and Human Development,* Amman, Jordan, 21-23 September, 2010

"Impact of community-based rehabilitation programs for persons with disabilities in Karnataka, India", paper presented at the 2011 Conference "Mind the Gap: From Evidence to Policy Impact", Cuernavaca, Mexico, June 15-17, 2011.

Manchester, United Kingdom, Disability and the Majority World: Towards a Global Disability Studies: The 1st annual international conference, Critical Disability Studies, Manchester Metropolitan University, 7th – 8th July, 2011.

Ethical issues and clearance

The research was approved by the Ethical Committee of AIFO as complying with AIFO's Ethical Guidelines (in Appendix 4).

An ethical approval application form, addressing all issues pertaining to ethical matters that the research project raised, was submitted to the UCL Ethics Committee. Ethical clearance was received in November 2009 (n 1660/003). The application strictly follows the Economic and Social Research Council's Research Ethics Framework as well as the guidelines of the UCL Ethics Committee.

A risk assessment procedure has been followed as this study is aimed at interviewing persons with disabilities (including children) in randomly selected localities of Mandya district. An ethical issue was raised about confidentiality and the importance of ensuring the anonymity, protection and security of participants. To address this issue, a series of initiatives were taken to ensure that the study is compliant with the UK Data Protection Act 1998, India IT Act 2000/21 and with international ethical research standards for the protection of individuals interviewed in a survey programme.

Signed informed consent was asked from all participants. Consent was obtained from a parent, guardian or caretaker for all minors (under 18 years old) interviewed. Persons who could not write were read and explained the consent form and asked to place their left thumb impression for acceptance.

Data collectors and supervisors were trained on disability awareness, including attitudes toward children with disabilities, appropriate vocabulary and social behaviour. Local officials were notified of the presence of the survey teams. Permission was sought from the village leaders to gain access to the communities. Appropriate arrangements were made for referral of the respondent, in case of severe emotional distress due to any reason during the survey.

The data were anonymized and stored in a database, where there was no possibility of individual identification. The original completed questionnaires were kept in protected locked storage in the AIFO office premises in Bangalore for an intermediary period of 12 months before destruction. The database is protected by a password. All unique identifiers were deleted once the database was completed. Likewise, all primary data forms and documents were destroyed once the database was finalized. The database was made available to the Department of Epidemiology and Public Health at UCL, and to the Department of Economics at the University of Florence. It is anonymous and aggregated by location. Therefore there is no risk of identification of any of the participants. The database has been registered with the Department's Data Protection Coordinator at UCL.

A SAG composed of different stakeholders (including persons with disabilities) in India followed and advised on crucial aspects of the research project. It was consulted for reviewing and commenting on the proceedings. This Group included representatives from the partner organizations (SRMAB and MOB), DPOs, national NGOs, AIFO, WHO India, and persons from academic institutions.

The research team provided regular progress reports, as well as the present final report which presents the conclusions of the research.

In the control areas – areas where no CBR programme existed at the time of the study – the research survey was used as a first step for planning and starting a CBR programme. Persons involved in the survey were provided information about different Government schemes and referred to specialist centres during the survey. A CBR programme in these areas is expected to start at the end of the S-PARK/CBR research.

All the persons trained as data collectors were already working for a non-governmental organization active in the area of agricultural development in Mandya.

No individuals participating in the research surveys received direct financial compensation. However, on the advice of programme partners, funds were provided to the two CBR projects for supporting the local communities, and more specifically for persons with disabilities and their families, through specific development activities in the villages that participated in the research.

During the field surveys, the interviewers were given information about rights of persons with disabilities and entitlements available from different government and non-governmental programmes, such as access to disability pensions, certificates and bus-passes. The district disability officer was informed about persons discovered living in particularly serious situations so that support from government funds could be released for them. Persons requiring access to specialized services in the neighbouring cities were also provided with support for these visits.

1.2 Theoretical Insights: CBR and Capability Approach

An introduction to CBR programmes and activities

WHO introduced CBR following the Alma-Ata declaration - the first international declaration advocating primary health care as the main strategy for achieving the goal of "health for all" (WHO, 1978).

"In the beginning CBR was primarily a service delivery method making optimum use of primary health care and community resources, and was aimed at bringing primary health care and rehabilitation services closer to people with disabilities, especially in low-income countries. Early programmes were mainly focused on physiotherapy, assistive devices, and medical or surgical interventions. Some also introduced education activities and livelihood opportunities through skills-training or income-generating programmes." (WHO, 2010a, p. 23)

In 1989, WHO published the manual *Training in the community for people with disabilities* (Helander et al., 1989) to provide guidance and support for CBR programmes and stakeholders, including persons with disabilities, family members, schoolteachers, local supervisors and CBR committee members. In 1993, the United Nations Development Programme (UNDP) published estimates of different types of disabilities and the possible role of CBR in answering different needs of these persons (Helander E., 1993). In 1994, the first CBR Joint Position Paper was published by ILO, UNESCO and WHO, which was followed by many other publications such as CBR and Health Care Referral Services (WHO, 1994a) and Promoting CBR among urban poor populations (WHO–AIFO, 2002).

In 2003, an international review of CBR was organized in Helsinki. In 2004, the ILO, UNESCO and WHO updated the first CBR Joint Position Paper to accommodate the Helsinki recommendations . The 2004 position paper redefines CBR as "a strategy within general community development for the rehabilitation, poverty reduction, equalization of opportunities and social inclusion of all people with disabilities" and promotes the implementation of CBR programmes "…through the combined efforts of people with disabilities themselves, their families, organizations and communities, and the relevant governmental and non-governmental health, education, vocational, social and other services" (WHO, 2004) .

In these definitions both the human rights perspective and the CA perspective are included. A CBR programme should contribute at all levels towards increasing opportunities and capacities

of people with disabilities, advocating for their rights, promoting inter-sectoral coordination and collaboration, enhancing community awareness and mobilization around the issue of disability and directly supporting people with disabilities in accessing services.

Therefore, CBR can be seen as a multi-sectoral, bottom-up strategy where the community involvement is an essential element of the development process – a development perspective that coincides almost entirely with the concept of human development (UNDP, 2010).

The combined efforts of persons with disabilities, their families, organizations and communities and the relevant governmental and non-governmental services (health, education, vocational and social) make CBR a collective action which fosters not only the individual capabilities of persons with disabilities but has a larger role at community and national levels (see Figure 3 and also the appendix).
The combined efforts of persons with disabilities, their families, organizations and communities and the relevant governmental and non-governmental services (health, education, vocational and social) make CBR a collective action which fosters not only the individual capabilities of persons with disabilities but has a larger role at community and national levels (see Figure 3 and also the appendix).

Figure 3. Different stakeholders of a CBR programme

Source: WHO (2010a, p. 42)

Persons with disabilities and their families are expected to play an extremely important role and endorse specific responsibilities within CBR which may include:

- playing an active role in all parts of the management of the CBR programme;
- participating in local CBR committees;
- being involved through volunteering and working as CBR personnel;
- building awareness about disability in their local communities, e.g. drawing attention to barriers and requesting their removal.

SHGs can be constituted as instruments to organize families at community level, as in the case of Mandya programmes (WHO, 2010a, p. 42).

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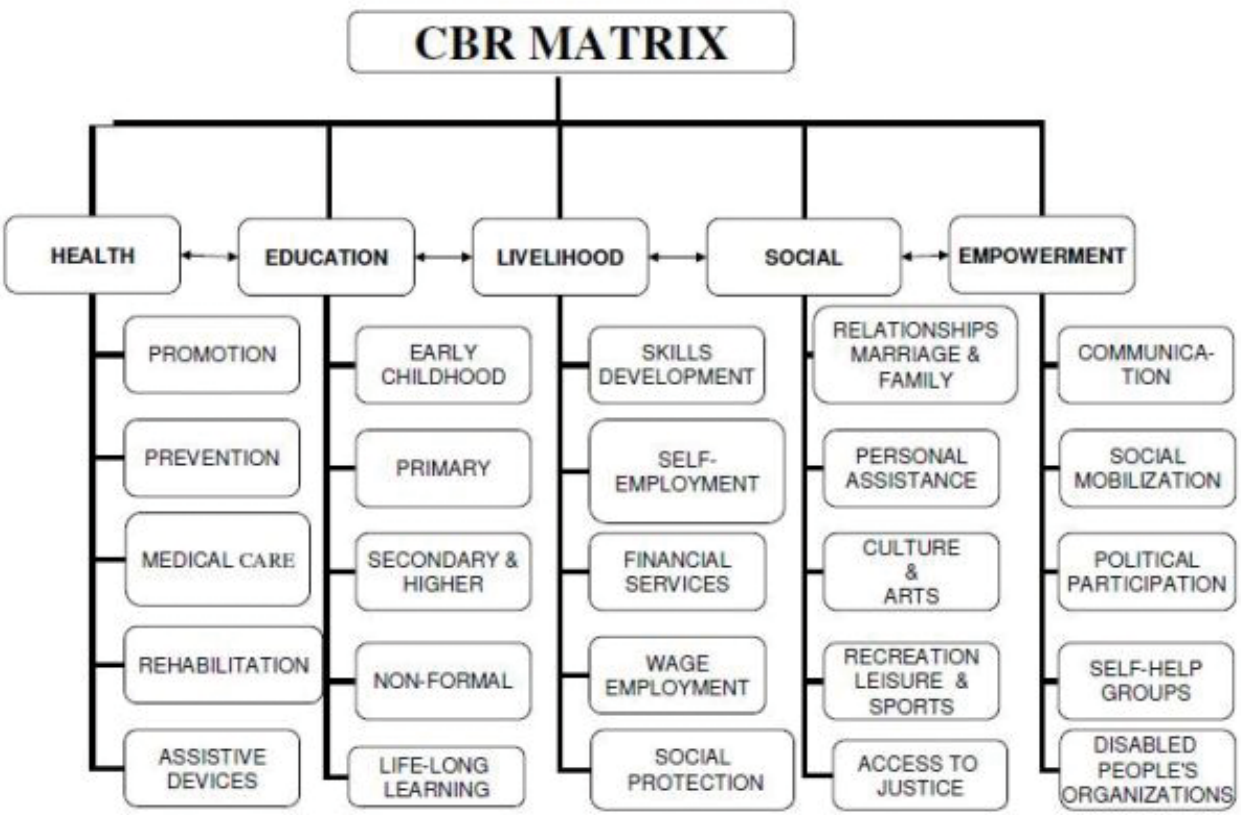
[2] In 2003 the Helsinki recommendations highlighted the need for CBR programmes to focus on:
• reducing poverty, given that poverty is a key determinant and outcome of disability;
• promoting community involvement and ownership;
• developing and strengthening of multi-sectoral collaboration;
• involving DPOs in their programmes;
• scaling up their programmes;
• promoting evidence-based practice.
The Joint Position Paper of 2004 recognizes that persons with disabilities should have access to all services which are available to people in the community, such as community health services, and child health, social welfare and education programmes. It also emphasizes human rights and calls for action against poverty, and for government support, and development of national policies (WHO, 2010a).

CBR matrix and the Capability Approach

In impact evaluation analysis researchers consider the theory of changes to understand the causal relationships among variables. The theory of changes is a description of how an intervention is supposed to deliver the desired results by highlighting the causal logic used to identify the outcomes of interest. This theory of change can be modelled in different ways such as theoretical models (as we are going to move towards), logic models, local frameworks and result chains (White, 2007; Gertler et al. 2011). In this section we are going to describe how CBR programmes can have a multidimensional impact on individual and collective capabilities, on agency and individual and social empowerment.

The CBR matrix developed by WHO and introduced in a paper in 2007 as a framework for development of CBR Guidelines (WHO, 2010a) consists of five components: health, education, work, empowerment and social participation. In Figure 4 the CBR matrix components and subcomponents or elements are reported.

Figure 4. CBR Matrix



Source: WHO (2010a, p. 25)

According to the WHO CBR Manual "the first four components relate to key development sectors, reflecting the multi-sectoral focus of CBR. The final component relates to the empowerment of people with disabilities, their families and communities, which is fundamental for ensuring access to each development sector and improving the quality of life and enjoyment of human rights for people with disabilities.

CBR programmes are not expected to implement every component and element of the CBR matrix. Instead the matrix has been designed to allow programmes to select options which best meet their local needs, priorities and resources available. In addition to implementing specific activities for people with disabilities, CBR programmes will need to develop partnerships and alliances with other sectors not covered by CBR programmes to ensure that people with disabilities and their family members are able to access the benefits of these sectors." (WHO, 2010a, p. 24).

According to Trani et al. (2011), the "value added" by the CA is that it acknowledges human diversity and does not segregate vulnerable groups. Furthermore, it perceives disability as a multidimensional dynamic phenomenon, with inherent limitations to the 'capability' to achieve various 'beings and doings', or 'functionings' that the individual values (Sen, 1992, 1999). The authors highlight how in theory the CA emphasizes the importance of taking a holistic view of the individual that attempts to ensure equality, irrespective of differences of gender, ethnicity, race, disability and so forth. Therefore, this approach explicitly attempts to avoid imprisoning individuals with an immutable label. "Whether the disability arises from physical problems, or from mental handicaps, or from socially-imposed restrictions, the person with disability has an immediate reason for social attention in a capability oriented theory of justice, which she or he may not have in other approaches, including in utilitarianism, the Rawlsian theory of Justice, and the opulence-based welfare economics" (Sen 2009, 23-24). The CA is rooted in the Aristotelian philosophy, and emphasizes the concept of human "flourishing" in order to promote the "multiple realizability" of a person (Nussbaum, 2000).

According to Barbuto et al. (2011) this approach changes the idea of care through rehabilitation, ruling out any form of segregation and institutionalization, which can lead to serious violations of human rights (OHCHR, 2007): in fact the CRPD recognizes "the same right for all persons with disabilities to live in the community, with the same opportunities to choose as the other members". In other words, embracing the capability perspective in disability studies means to acknowledge that policy-maker's interventions must be aimed at the expansion of individual and collective capabilities (including social empowerment) and therefore, that they must promote the process of exaptation of the person with disability, i.e. his/her pathway of creative adaptation (Bellanca et al., 2011). Therefore, instead of certifying if a person has a disability and classifying the latter, the CA focuses on the causes of vulnerability or on the difficulties a person faces in order to achieve his/her well-being/well-becoming. In fact, the CA, like the social model of disability, looks at the possibility of changing limitations into resources and inaccessibility into access (entitlement) starting from rights but giving importance to the individual's experience, values and aspirations (Barbuto et al, 2011). These elements are in line with the CBR's multi-sectoral, bottom-up communitarian strategy and principles in terms of person's agency up-grading process leading to individual and social empowerment from a multidimensional and multilevel perspective.[4]

In particular, the components and the elements of the CBR Matrix can easily be combined with the majority of the CA domains to conceptualize well-being and to evaluate the impact on well-being, such as the "ten central human capabilities" developed by Nussbaum (for other operationalisable lists see also Biggeri et al., 2011): preservation of life; good health; body

integrity; sense, imagination and thought; emotions; practical reasoning; affiliation; respect for other species; playing; control over one's environment. Some of these are based on social interactions, such as the capability of affiliation, that expresses the will to pursue the objective of the advancement of well-being (Dubois and Trani, 2009). Therefore, the CA domains have been reclassified according to the CBR matrix and questions have been added accordingly in the tools for cases where domains were also absent as sub-components of the CBR Matrix. For instance, according to qualitative interviews, the respect from community, typical of the CA perspective, could deserve special attention. Furthermore, the quality of life approach is becoming increasingly relevant in the literature, and to reflect this we added two questions on the overall life satisfaction and on the domains of health.

[4] Article 26 of the UNCRPD clearly confirms "States Parties shall organize, strengthen and extend comprehensive habilitation and rehabilitation services and programmes, particularly in the areas of health, employment, education and social services". Services and programs should "start as soon as possible" and should base themselves on "a multidisciplinary evaluation of the needs and points of strength of the individual;" they should sustain "the participation and the inclusion in the community and in all aspects of the society", be " voluntary (…) and available to people with disabilities in places nearest as possible to their community". So the objective is clearly not just to 'cure' anymore, but also to sustain an independent life and promote inclusion within the community (art. 19); not just to provide assistance, but also to facilitate personal mobility (art. 20) functionings and capabilities (Barbuto et al. 2011).

BOX 1. CBR Elements according to CBR Guidelines (WHO 2010a)

Community members

CBR can benefit all people in the community, not just those with disabilities. CBR programmes should encourage community members to undertake the following roles and responsibilities:

- participate in training opportunities to learn more about disability;
- change their beliefs and attitudes that may limit opportunities for people with disabilities and their families;
- address other barriers that may prevent people with disabilities and their families from participating in the life of their communities;
- lead by example and include people with disabilities and their families in activities;
- contribute resources (e.g. time, money, equipment) to CBR programmes;
- protect their communities and address the causes of disability;
- provide support and assistance where needed for people with disabilities and their families.

Civil society

The roles and responsibilities of civil society organizations and groups will vary depending on their level – international, national, regional or community. Their roles and responsibilities will also be influenced by their level of experience and involvement in disability and CBR. Historically, many nongovernmental organizations have been at the centre of CBR work, so they may be the driving force behind any new or existing CBR programme. Generally, roles and responsibilities may include:

- developing and implementing CBR programmes where there is limited government support;
- providing technical assistance, resources and training for CBR programmes;
- supporting the development of referral networks between stakeholders;
- supporting CBR programmes to build the capacity of other stakeholders;
- mainstreaming disability into existing programmes and services;
- supporting the evaluation, research and development of CBR.

Disabled people's organizations

Disabled people's organizations are a great resource for strengthening CBR programmes, and many currently play meaningful roles in CBR programmes (see Empowerment component: Disabled people's organizations).

Their roles and responsibilities may include:

- representing the interests of people with disabilities;
- providing advice about the needs of people with disabilities;
- educating people with disabilities about their rights;
- advocating and lobbying for action to ensure that governments and service providers are responsive to these rights, e.g. implementation of programmes in compliance with the Convention on the Rights of Persons with Disabilities;
- provision of information about services to people with disabilities;
- direct involvement in the management of CBR programmes.

Government

Disability issues should concern all levels of government and all government sectors, e.g. the health, education, employment and social sectors. Their roles and responsibilities might include:

• taking the lead in the management and/or implementation of national CBR

programmes;

• ensuring that appropriate legislation and policy frameworks are in place to support the rights of people with disabilities;

• developing a national policy on CBR, or ensuring CBR is included as a strategy in relevant policies, e.g. rehabilitation or development policies;

• providing human, material, and financial resources for CBR programmes;

• ensuring people with disabilities and their family members are able to access all public programmes, services and facilities;

• developing CBR as an operational methodology or service delivery mechanism for providing rehabilitation services across the country.

CBR managers

Management roles and responsibilities will depend on who is responsible for initiating and implementing the CBR programme and on the degree of decentralization, e.g. whether the programme is based at the national, regional or local level. In general, some of the roles and responsibilities of a CBR programme manager may include:

• facilitating each stage of the management cycle;

• ensuring policies, systems and procedures are in place for management of the programme;

• building and maintaining networks and partnerships both within and outside the community;

• ensuring that all key stakeholders are involved in each stage of the management cycle and are kept well informed of accomplishments and developments;

• mobilizing and managing resources, e.g. financial, human and material resources;

• building the capacity of communities and ensuring disability issues are mainstreamed into the development sector;

• managing day-to-day activities by delegating tasks and responsibilities;

• supporting and supervising CBR personnel, e.g. ensuring CBR personnel are aware of their roles and responsibilities, meeting regularly with CBR personnel to review their performance and progress, and organizing training programmes;

• managing information systems to monitor progress and performance.

CBR personnel

CBR personnel are at the core of CBR and are a resource for disabled people, their families and community members. Their roles and responsibilities will become clear throughout the CBR guidelines; however, they include:

• identifying people with disabilities, carrying out basic assessments of their function and providing simple therapeutic interventions;

• educating and training family members to support and assist people with disabilities;

• providing information about services available within the community, and linking people with disabilities and their families with these services via referral and follow-up;

• assisting people with disabilities to come together to form self-help groups;

• advocating for improved accessibility and inclusion of people with disabilities by making contact with health centres, schools and workplaces;

• raising awareness in the community about disability to encourage the inclusion of disabled people in family and community life.

Chapter 2. Methodology

Chapter 2. Methodology

As already mentioned, this work also presents impact analysis research based on quantitative methods. In this chapter we present the statistical framework, the methodology used for sampling design, the tools elaborated (mainly questionnaires), the training of data collectors, the organization of the survey in the field, the data entry, the data management and data quality check, as well as the limitations and constraints of the process.

2.1 Statistical Framework

To explore the impact of CBR programme over time on a population of persons with disabilities who entered the programmes at different periods of time, we used a statistical framework for causal inference which has received increasing attention in recent years – the framework based on potential outcomes. This framework is rooted in the statistical work on randomized experiments by Fisher (1918, 1925) and Neyman (1923), and extended by Rubin (1974, 1976, 1977, 1978, and 1990) and subsequently by others to apply it to non-randomized studies and other forms of inference. This perspective was called "Rubin's Causal Model" (RCM) because it considered causal inference as a problem of missing data, with explicit mathematical modelling of the assignment mechanism as a process for revealing the observed data (Holland, 1986). The RCM allows the direct handling of complications, such as non-compliance with assigned treatment which bridges experiments and the econometric instrumental variables methods. (Angrist et al., 1996) In the late 1980s and 1990s, many economists have accepted and adopted this framework (Bjorklund and Moffitt, 1987; Heckman, 1990; Manski, 1990; Manski et al., 1992, Angrist and Imbens, 1995) because of the clarity it brings to questions of causality.

In this section we describe the essential elements of the modern approach to programme evaluation, based on the work by Rubin, in an example which refers to the programme for persons with disabilities that we wish to evaluate.

Suppose we wish to analyse the impact of a CBR programme using observations on n persons with disabilities, indexed by i = 1,…,n. Some of these individuals were enrolled in the CBR programme. Others were not enrolled, either because they were ineligible (e.g. the village was not reached by the programme) or chose not to enrol. For each unit we also observe a set of pre-treatment variables (or covariates).

After setting a response variable, on which we measure the impact of the CBR programme, we postulate, for each individual i, the existence of two potential outcomes, usually denoted by Yi(0) and Yi(1). The first, Yi(0), denotes the outcome (i.e. the value of Yi) that would be realized by individual i if he or she did not participate in the CBR programme. Similarly, Yi(1) denotes the outcome that would be realized by individual i if he or she did participate in the CBR programme. Individual i can either participate or not participate in the programme, but not both, and thus only one of these two potential outcomes can be realized. Prior to the assignment being determined, both are potentially observable, hence the label "potential outcomes". If individual i participates in the CBR programme, Yi(1) will be realized and Yi(0) will (ex post) be a counterfactual outcome. If, on the other hand, individual i does not participate in the programme, Yi(0) will be realized and Yi(1) will be the (ex post) counterfactual. The causal effect of the active intervention relative to its control version is defined as a comparison of Y(1) and Y(0). Basically, the absolute difference between interventions, measuring Y(1)-Y(0), as well as the relative difference, measuring Y (1)/Y (0), can be compared.

In randomized experiments, the results in the two treatment groups may often be directly compared because if the size of the groups is sufficiently large their units are likely to be similar (Banerjee and Duflo, 2009; Mauro, 2010). In the case of a CBR programme the experiment is non-randomized, and such direct comparisons may be misleading because the individuals participating in the CBR programme can differ systematically from the individuals not participating. The main issue in this approach is that people with disabilities joining the CBR programme activities might be somewhat self-selected, and so large differences may exist between the participating and control groups on observable as well as unobservable covariates. This can lead to biased estimates of intervention effect. Therefore, additional assumptions have to be made to estimate the causal effects of interest. An assumption often made in such a study is the "strong ignorability" or "unconfoundedness" of the assignment mechanism given the observed covariates, which requires that all variables that affect both outcome and the probability of receiving the intervention are observed.

When there are many background covariates, as in our study, balancing the distribution of all the covariates between CBR and control groups can be difficult. To address this problem, Rosenbaum and Rubin (1983) developed the "propensity score" methodology. The key insight of their work was that given the strong ignorability assumption, intervention assignment and the potential outcomes are independent given propensity score. Thus, adjusting for the propensity score removes the bias associated with differences in the observed covariates in the participating (CBR) and control groups. To estimate propensity scores, which are the conditional probabilities of being enrolled given a vector of observed covariates, we must model the distribution of the intervention indicator given these observed covariates.

Much of the work on propensity score analysis has focused on the case where the intervention is binary. In our specific framework, it also would be natural to follow this approach, comparing intervention villages (participating in the current CBR programme and in the tables noted as CBR) and control villages (not participating in the CBR programme). Although the assignment mechanism of intervention or CBR villages cannot be considered random (i.e. the CBR villages were chosen by the associations taking into consideration some variables that could be correlated to the outcome), propensity score matching method(s) could be applied to handle this source of bias. The problem in applying such a binary approach lies in the fact that almost the totality of villages were reached by the CBR programme during the years, reducing dramatically the percentage of villages that could be considered as potential controls. To address this issue, we considered as control units the villages in CBR areas before the program was implemented.

2.2 Sample Design

We carried out a household random sample survey in Mandya district and part of the Ramanagaram District, as well as in the neighbouring taluks as control areas (Karnataka State, India).

Aggregated data at village level were available for the drawing of the sample. The CBR projects reached a total of 2,045 villages, including 19,398 persons with disabilities, in a period of time from 1997 until 2006. Table 5 reports the distribution of the variable "starting year of the CBR programme". In 2002, the CBR activities had started in approximately 81% of the villages, while during years 2005-2006 the programme was extended to another 19% of the villages.

Table 5: Distribution of villages according to the year when CBR started

Starting Year	Number	%	Cumulate %
1997	44	2.15	2.15
1998	31	1.52	3.67
1999	10	0.49	4.16
2000	17	0.83	4.99
2001	167	8.17	13.15
2002	1380	67.48	80.64
2003	31	1.52	82.15
2004	2	0.1	82.25
2005	145	7.09	89.34
2006	218	10.66	100
Total	**2,045**	**100**	

The sample was drawn on the basis of following variables available in the main list of villages: total size of the village number of people with disabilities, area, presence of a school or hospital, and distance to a main road. This information was compiled through secondary statistics collected by the local staff. Some of these variables were used to stratify the population into sub-groups. A random sample from each stratum was then drawn. This sampling technique was adopted because a geographically dispersed population can be expensive to survey, and treating each village as a cluster allows us to save resources available to increase the sample size.

We chose three village-level variables in order to stratify the population: the geographical area (Table 6), the total size of the village (i.e. number of people with and without disabilities by gender) and the starting year of the programme. The data on persons with disabilities were taken from the monitoring system of the two CBR programmes.

Based on available resources, we planned to sample approximately 2,000/2,500 individuals (around 200/250 villages). Using three variables generates a large number of strata, with the consequence that the size of the sample in each stratum could be too low. To avoid this problem, it was decided to recode the variable "total size" dichotomically, dividing all villages in two categories, above and below 1,000 inhabitants (Table 7).

Table 6: Geographical distribution of the villages of the sample

	Freq.	%	Cum. %
Mandya-KR Pet	311	15.21	15.21
Mandya-Maddur	248	12.13	27.33
Mandya-Malavalli	221	10.81	38.14
Mandya-Mandya	270	13.20	51.34
Mandya-Nagamangala	363	17.75	69.10
Mandya-Pandavapura	165	8.07	77.16
Mandya-Srirangapatna	106	5.18	82.35
Ramnagaram	171	8.36	90.71
Ramnagaram-Chennapatna	190	9.29	100.00
Total	2,045	100.00	

Table 7: Distribution of villages of the sample according to the village population

	Freq.	**%**	**Cum.%**
>1000	613	29.98	29.98
<=1000	1,432	70.02	100.00
Total	**2,045**	**100.00**	

The resulting total number of strata was 180[5]. Considering that many strata contain no observations, the final number of non-empty strata was 36. The sample fraction was set at 9% for villages where the CBR started in years 2001-2002-2005-2006, and set at 50% for the other years (Table 8).

Table 8: Distribution of villages of the sample according to the year CBR started

Year CBR started	**Freq.**	**%**
2001-02-05-06	1,910	93.4
Other	135	6.6
Total	**2,045**	**100.00**

The final sample size (Table 9) is of 2,253 PwDs, distributed in 237 villages.

In each selected village, all persons with disabilities registered with the CBR programme were interviewed.

In order to achieve the other objectives of the research, we also decided to – (i) survey in other neighbouring sub-districts not covered by the CBR; and (ii) to screen for other people with disabilities who were not registered with CBR project in a small sample of villages covered by CBR.

This allowed us: to see what services people with disabilities have access to in areas not covered by the CBR programme and therefore check for the consistency of our methodology; and to check if the CBR effectively covers all persons with disabilities in the programme areas, in order to obtain more data for further analysis if needed.

[5] 9 (number of areas) x 2 (dichotomized categories of the total size) x 10(categories of the starting year) = 180

Table 9: Final sample

Area	Freq.	%	Cum.%
chen-big-2002	6	2.53	2.53
chen-small-2002	11	4.64	7.17
krpt-big-2002	5	2.11	9.28
krpt-small-2002	23	9.70	18.99
madd-big-2002	9	3.80	22.78
madd-small-2002	13	5.49	28.27
mala-big-1997	7	2.95	31.22
mala-big-1998	6	2.53	33.76
mala-big-2001	4	1.69	35.44
mala-small-1997	15	6.33	41.77
mala-small-1998	9	3.80	45.57
mala-small-2001	8	3.38	48.95
mndy-big-1999	3	1.27	50.21
mndy-big-2000	6	2.53	52.74
mndy-big-2001	1	0.42	53.16
mndy-big-2002	5	2.11	55.27
mndy-big-2003	7	2.95	58.23
mndy-small-1999	2	0.84	59.07
mndy-small-2000	2	0.84	59.92
mndy-small-2001	1	0.42	60.34
mndy-small-2002	12	5.06	65.40
mndy-small-2003	7	2.95	68.35
naga-big-2005	1	0.42	68.78
naga-big-2006	2	0.84	69.62
naga-small-2005	12	5.06	74.68
naga-small-2006	19	8.02	82.70
pand-big-2002	6	2.53	85.23
pand-big-2003	1	0.42	85.65
pand-small-2002	9	3.80	89.45
pand-small-2003	1	0.42	89.87
ramn-big-2002	3	1.27	91.14
ramn-small-2002	11	4.64	95.78
srir-big-2002	4	1.69	97.47
srir-big-2003	1	0.42	97.89
srir-big-2004	1	0.42	98.31
srir-small-2002	4	1.69	100.00
Total	**237**	**100.00**	

In the two areas not yet covered by the CBR programme, a few strata were selected (using the same stratification criteria as of the main sample, except for the variable "starting year"). We obtained 4 groups (2 areas x 2 size categories). In each stratum a random sample was selected using a fraction of sampling of 20%. A total of 28 villages, including around 315 persons with disabilities, were selected.

Finally an additional random subsample of 17 villages out of the 237 selected villages covered by CBR was also selected. A total population survey was done to identify all the persons with disabilities living in these villages including those who were not enrolled in the CBR projects. All persons with disabilities in these villages were interviewed, independently from their registration with the CBR projects. We identified 213 persons with disabilities registered with the CBR projects (of whom 188 were interviewed). An additional 157 persons with disabilities were also identified who were not registered with the CBR programmes - all of them were also interviewed (from this group, 21 persons with disabilities who had participated in the past in some CBR activities were excluded from the analysis).

2.3 Survey Tools

Different instruments were considered for the collection of information from people with disabilities, and from other key informants such as caregivers, *Anganwadi* workers, VRWs (social workers), SHG representatives, and *Gram Panchayat* representatives.

Questionnaire for persons with disabilities: The questionnaire used to interview persons with disabilities consisted of five parts.
In the first part, circumstances of the household where the person with disability lived were evaluated using a general questionnaire about the composition of the family, the socio-economic characteristics of each member of the household such as age, gender, education level and employment. This part of the questionnaire also asked about type of house, ownership of land, access to water and sanitation, food intake, assets and level of debt. We also asked the person with disability or her/his caregiver about his/her participation in the CBR programme.

In the second part, the person with disability was asked about activity limitations and body functioning difficulties. These nine questions are based on the International Classification of Functioning, Disability and Health (ICF) of the WHO (WHO, 2001).

This was followed by questions based on the ICF and focusing on ability to carry out specific activities according to Form 2 of "Guide for Local Supervisors" of the WHO CBR Manual. This part of the questionnaire was divided in seven sections. The first section assessed individuals' state of autonomy asking about the ability to eat, to take a bath, to use the latrine and to dress. The second section asked about speech and understanding difficulties. The third section appraised movement abilities. The fourth section considered participation in community activities including employment. The fifth section looked at access to education and basic knowledge such as the ability to read, write and count. The sixth section was composed of only two questions about breastfeeding and, for children below 14 years old, the ability to play. The last section asked about the need for help for specific activities and about who provided this help.

In each section, the respondents were asked if the CBR programme helped them in achieving the activities mentioned. For each question about abilities, a rating scale was used proposing 3 ordered response choices: "I can do this activity on my own", "I can do it with help" and "I cannot do it at all".

During the field-testing of the questionnaire, alternative scales were tried: a paisa pachod scale, a kind of percentage scale, and then a picture of various quantities of Ragi Mudde or Mudde Balls, a local dish (as a visual representation of the Likert scale) to gather consistent answers among different respondents. A pilot analysis was then performed to test the effectiveness of this tool, but the results were so poor that it was decided to utilize a more general Likert ordinal scale.

In the third part, participation restriction and stigma was assessed using the Participation Scale developed by the WHO. This 18-items instrument measures beneficiaries' perceived participation in the community based on the participation domains of the ICF (Van Brakel et al., 2006). The Participation Scale has already been tested in different cultural contexts. Using such a scale provided measurable and comparable information about the impact of the CBR programmes in changing attitudes and promoting integration of persons with disabilities at the time of assessment.

A three level rating scale was used to assess the level of participation in each activity: "Yes I do", "No I don't" and "Sometimes I do". Another rating scale with four levels was used to measure the intensity of the problem in participation as perceived by the persons: participating in the activity is not a problem, a small problem, a medium problem or a large problem. This information can primarily be used to compare different areas covered by the two programmes. Eventually such information can be useful for a future assessment study in Mandya district.

The fourth part of the questionnaire was developed to evaluate more specifically the support received from the CBR programme, especially in the five distinct domains used in the CBR matrix developed by WHO: health, education, livelihood, social participation and empowerment. There are examples from impact assessments of CBR programmes carried out in other countries that have identified a number of specific variables concerning the kind of support provided by CBR programmes (for example SINTEF impact assessment of CBR programme in Palestine Eide, 2006).

As we have argued in the theoretical section, the CBR matrix component can easily be combined with most of the CA domains. Thus the CA domains were reclassified according to the CBR matrix and questions were added accordingly.

Finally, in the last part (fifth) of this questionnaire there were questions about overall life satisfaction, satisfaction with their personal health, and two life-stories with questions based on the quality of life approach. A general opinion on CBR activities was also asked both regarding positive and negative aspects.

This last part of the questionnaire relied on work already developed in previous fieldwork looking at access to services, social inclusion and participation of people with disabilities and as well as at capabilities expansion (Biggeri and Bellanca, 2010; Trani, Bakhshi and Rolland, 2006). Moreover, the experience of AIFO's CBR workers and local NGOs was fundamental to make this last instrument more locally oriented and culturally sound. The instrument was discussed with a pilot group of persons with disabilities participating in the CBR programmes, to finalize the framework of structured interviews or questionnaires.

In this last part, some continuous variables were measured using a four point rating scale: "I can never do it", "I can sometimes", "I can often" and "I can always". We asked respondents their opinions about the situation at different points of time to assess possible change and therefore the impact of the CBR programme in the areas of interest. This was central for the impact evaluation method reported in the next section (note that specific years were investigated according to the year CBR started in the village).

Translation of questionnaires: All questionnaires were translated into Kannada and then translated back into English to check the quality of translation. A few minor mistakes were found between the Kannada and English versions. Translators finally agreed on the final wording which was validated in the field.

Field-testing of questionnaires: Questionnaires were tested in Mandya district over three days for consistency and reliability. The Indian research team was actively involved in the finalization and testing of questionnaires. In particular, before and during the data collectors' training course, trials were conducted to improve the questionnaire and relevant changes were introduced. Some questions on Activities of Daily Living (ADL) in part two of the questionnaire were removed as they were too similar to other questions or were perceived as repetitious. ADL related questions were also simplified into homogenous categories. This interaction also reduced the number of questions, as the main questionnaire was initially very long.

Other specific information: Information about castes and/or religions of persons was separately available only from the areas covered by CBR – it has not been added to the questionnaire database, but it was available in a separate Master-List based on the information of the Need Assessment Forms. Caste and religion information was considered as a sensitive issue and has not been collected from the control area for ethical reasons and to avoid compromising the data collection process.

The questionnaire was also used in the control group with some modifications, most of the questions related to CBR were not included.

Other questionnaires for key informants: As we mentioned at the beginning of this section, five other instruments (questionnaires) were used to understand indirect effects of CBR on key informants. Specific questionnaires were used to interview the following key informants – caregivers, *Anganwadi* workers, VRWs, SHG representatives, and *Gram Panchayat* representatives. All questionnaires are presented in the appendix at the end of the volume.

2.4 Training of Data Collectors

Objectives of the training

The overall objective of the data collectors' training was to develop their knowledge, attitude and skills concerning understanding the CBR programmes, disability concepts, the quantitative research component of the S-PARK research initiative, the data collection process, documentation and reporting. At the end of the training programme the participants were able to:

- explain the activities of CBR programmes implemented by the two partner organizations (MOB and SRMAB) in Mandya and parts of Ramnagaram districts of Karnataka state;
- understand the objectives of the S-PARK research initiative, particularly the objectives of the quantitative phase of the research;
- describe concepts, principles and the background of CBR and its relevance in the two programme areas;
- analyse the situation of persons with disability, their human rights, their needs and problems;
- identify issues of gender equality, mental and physical abilities, and barriers;
- consider the needs of children with disabilities and their difficulties;

- appreciate the value of equality, inclusion, positive attitude and appropriate behaviour when working with persons with disabilities;
- understand all the questionnaires (main questionnaire and questionnaires for key informants), their various parts and their relevance to the research objectives;
- facilitate interviews of persons with disability, family members and community representatives;
- elicit and record data in a systematic manner;
- work in coordination with the larger group of data enumerators, supervisors and S-PARK coordination team members.

In addition they were:

- familiar with meanings, causes, preventive measures, of different kinds of disabilities and rehabilitation activities;
- self-motivated, inspired, volunteers and keen to work for the personal development of persons with disabilities.

Training programme

A two weeks' training course of data collectors was carried out. 36 persons, who were working for an agriculture development NGO, were identified by AIFO. Among them 32 persons attended the complete training programme. The residential training was conducted at TRDC, the rural unit of Malavalli project (SRMAB) from 22nd November to 3rd December 2009. Before starting the survey, an additional three-day refresher training on key concepts and issues took place at TRDC from 15th to 17th December 2009.

Most training sessions were in English and translated into Kannada.

The goal of the training was multipronged and covered areas such as: sensitization of the data collectors to disability issues; understanding the aim and work of the CBR programmes; teaching them interview techniques; working on existing prejudice and stigma towards people with disabilities and at least making data collectors aware of them; explaining the questionnaire by going through all questions one-by-one.

Training facilitators used a series of tools to carry out the training (see Figure 5a and b). In particular, they used participatory learning methodologies such as: presentations by participants; brainstorming in groups; simulation exercises; demonstrations and examples, storytelling; social games; individual assignments; practical interview exercises in the villages (see Figure 6); questions and answers; picture/poster presentations; and individual testing.

Regular evaluation was carried out during the training to ensure that data collectors understood the disability concepts, interviewing procedures, and meaning of the questions. Role plays were also introduced to test attitudes and sensitivity of questions, to make sure that respondents were not offended by sensitive questions, to make sure that the wording and phraseology were adequate, so that questions were clear, unambiguous and not misunderstood.

Data collectors were sensitized by unveiling mechanisms of stereotypes and prejudices. The dynamics of their creation and the cultural factors that perpetuate them were explained. Facilitators argued that to fight discrimination that results from prejudice, we must understand processes of stigmatization from a social, psychological and behavioural perspective. This was considered a huge effort for a survey, yet "these beliefs strongly influence the attitudes of the survey team and impact the way the questions are asked, and consequently, the quality of the

answers that are obtained" (Bakhshi and Trani, 2006).

Data collectors were informed about disability issues. Concepts of disability, definitions, and types of disabilities (physical and sensory disabilities; mental disabilities) were discussed. The disability models and theories were explained. The questionnaire was tested with the team in the field through interviews and organized feedback sessions to identify difficulties faced and try to address them.

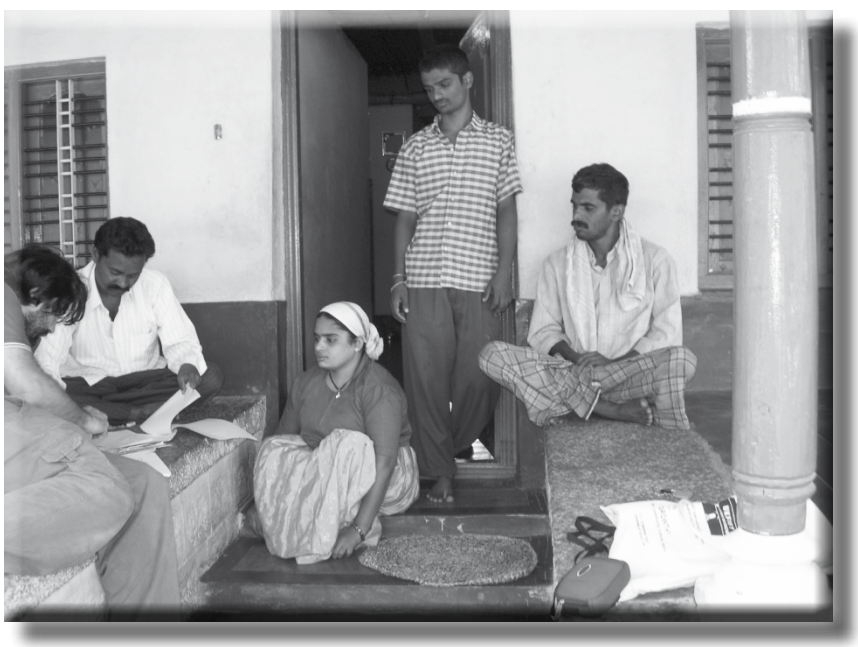
Figure 5. During the training at TRDC

a) Trainers

b) Participants

c) Practical training at TRDC

Figure 6. Trainer, data collector with stakeholders during the piloting



Trainers checked individually the work done and mistakes were also discussed individually. The pilot testing of the questionnaire, although somewhat short (4-5 days), was appreciated and considered essential for the preparation of the survey. "Training for us was good and the team could see that people can change attitudes towards disability. Many of the data collectors were schoolteachers, they said that this training has changed their attitudes, that they will work differently with children with disabilities in their schools. Practical exercises like trying to write with toes of the feet, trying to draw with mouth, helped in changing attitudes" (Deepak, 2010, Debriefing).

During the training review, participants highlighted that three persons from outside India participated in the training of data collectors. The team considered their involvement useful. Some sessions such as "ice-breaking" and "how to change attitudes" were greatly appreciated as they changed data collectors' perception of disability. This had a positive impact on the data collection process. "Their facilitation and teaching was generally very good" (Deepak, 2010, Debriefing).[6]

2.5 Survey Process and Organization

As well as the selection and training of the survey team, the logistics and the field coordination were among the most challenging tasks of the survey. In this sub-section we present some of the main issues, difficulties, challenges and solutions adopted during the data collection.

The field research team

The entire field research team of 45 people were divided into 3 major groups: i) the coordination group composed of 3 persons; ii) the field supervisors and data verifiers (five persons, of which four were Alva college physiotherapy students[7] and one from University of Florence) and iii) the group of 31 data collectors. Initially, 36 persons were identified for training as data collectors but only 32 persons completed the training.

Data collectors were a very heterogeneous group, with different educational levels. Some of them were from cultural groups, some were schoolteachers or university students, etc. and they came from different *taluks* in Mandya District.

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[6] "They were willing for hard and long work. Between the three persons, their way of teaching was different. For example, Jean François tried to simplify all his teachings, trying to come down to participants level, and ensured everyone has understood. Data collectors enjoyed his way of facilitation and teaching very much. They were all good in accepting our local conditions, all accepted to stay in TRDC like all other persons and decided not to go back to hotel. Their only problem was Internet, which was not planned properly, but they accepted all other conditions." (Deepak, 2010, Debriefing)

[7] The original idea was to identify supervisors from among the data collectors. However, during the training course, no suitable persons were identified. So 4 physiotherapy postgraduate students were invited to join the team as supervisors. They were given a separate 1-day orientation and they also attended the 3 days refresher training course with the other data collectors. These physiotherapy postgraduate students were a great help, without them doing the survey would have been very difficult. One explanation was enough for them; they were very quick to learn. They were also helpful and always cheeful. Two of them were from Bhutan and 2 from North India. They could speak a little Kannada.

[8]Three left during the training, a few others were found to be unsuitable.

After the training, because of their limited skills, six people were only given work with simpler and shorter questionnaires (caregivers, VRWs, *Anganwadi* workers, SHG members and *Gram Panchayat* members).

A collaborative spirit developed among data collectors. The team selected a name for itself ("Belaku" or Light) and composed a song about their work. Most of them were very enthusiastic - they started early in the morning and after finishing their day's work, they went on discussing the survey until dinner-time.

Field work, quality control in the field and feedback

The data collection work started in the CBR programme areas on the 18th December 2009. In Table 10 we report the calendar of data collection activities for the different taluks. Interviews started at the slow pace of two interviews per day per data collector. The rate increased, as collectors gained skills and confidence. The main survey period of December to February was adequate as people were readily available to be interviewed. At other times of the year, people are busier in the fields so this would have created more missing interviews (see the respondents Table 10).

Table 10: Survey programme: days of data collection in CBR programme area

Date	Taluk name	No. of working days
18-19 Dec 2009	Ramnagaram	2
20-22 Dec 2009	Chanpatna	3
23-25 Dec 2009	Maddur	3
26-27 Dec 2009	Sr. Patna	2
28 Dec 2009 to 4 Jan 2010 (With 2 days break)	Mandya	6
5-6 Jan 2010	Pandavapura	2
7-8 Jan 2010	Nagamangala	2
9-10 Jan 2010 (11-16 / six days festival break)	K.R. Pet	2
17-20 Jan 2010	Malavalli	4
Total working days		**26**

Data were collected according to the plan with regular and continuous daily monitoring (see Figure 7). The team held a daily meeting to discuss and finalize the programme: who would go to which village; which supervisor and which CBR worker would accompany them. The team also discussed logistical issues with the staff of MOB and the Malavalli programmes. In every village a CBR worker was present to help in the logistics. The data collection sub-teams were organized as follows: 6-8 data collectors went to 3-4 sub-districts with a data collection supervisor and a CBR programme member (usually a Taluk coordinator). The same process was repeated every day.

Figure 7. Data collection during the S-PARK/CBR survey

Tight supervision enabled the coordination team to ensure that accurate and reliable data were collected[9]. Most of the interviews were conducted inside the home or in a building. This aspect was important in order to ensure the privacy of the respondent. Data collectors were encouraged to ask data collection supervisors questions in case of doubts, problems, and need for clarification before and during the interview process. During the daily meetings, all issues and difficulties experienced in the villages were discussed, suggestions proposed and actions prepared for the next day. Supervisors checked that all problems raised were tackled immediately to promote high quality interviews.

All files for each village were stored in separate folders and area names were temporarily specified on them for easy reference until the data entry process was complete (Figure 8).

Figure 8. Storage for completed questionnaires

Supervisors verified questionnaires every afternoon, and in case of inconsistency or doubt, data collectors were immediately asked to go back to the interviewed persons to check the information.

Evening de-briefing sessions were another opportunity to discuss the problems of the day and for coordinators to encourage the team. Solutions to problems were brought forward by all participants.

All questionnaire files were verified daily by supervisors and any problem faced during the day was discussed between supervisors and research team. Detailed plans were made with project staff for next day's field visits and were verified at the beginning of each day.

On day-to-day management, certain issues and actions were taken (see Table 11 for some examples)[10] .

In the 17 sample villages, where all the population was screened, community meetings were conducted in the villages by CBR staff to identify missed or additional persons.

In the control areas, the work of identifying persons with disabilities was slower. Data collectors visited villages with the lists of persons with disabilities received from village *Anganwadi* workers; villagers helped to identifying additional persons with disability.

[9] One person was caught filling the questionnaire without asking the questions. His contract was terminated.

[10] Copies of the day-to-day plan, issues, actions taken are documented by Parthipan and data verifiers.

Table 11: Day to day management of the survey

Aspect/issue	Management-action taken
Data verification	To be done in the village itself and on the same day
Filled questionnaires collection	Filled questionnaires collected on the same day after the verification
Filing, bundling and arrangements	According to the village codification and on the same day
Double entry	Human resources were not enough for the double entry all the questionnaires ➘it was possible only for a fraction of them
SHGs	Some villages SHG is not there but still mentioned on the questionnaires
VRW and Gram Panchayat members	Some times double interviews because more than 1 village selected and information differs. In town municipalities VRW not applicable and for GPM ward members interviewed.
Death reported	Already mentioned on the questionnaires
Missing respondents	Searched with the possible places, time and conducted interviews
Not available	Already mentioned on the questionnaires
Caregiver	Interviews are conducted but need to be worked out

The support from CBR staff was invaluable. CBR workers and supervisors cooperated in finding people and meeting *Gram Panchayat* or community members. They helped in looking for persons with disabilities away for work. Where CBR workers were recently recruited and did not know the village, data collectors asked for help from the *Anganwadi* workers and other community persons in finding the houses of persons with disabilities. This process helped increase coverage.

Some persons with disabilities refused to be interviewed. One said that he did not want to be interviewed because he did not want to be seen as a person with disability as he may have difficulty in marriage. Others refused for different reasons.

During the first data collection about 80% of the targeted persons were interviewed (Table 12).

Table 12: Survey coverage

Taluks	Taluk name	Sample population to be covered (According to the case files collected/master lists sent earlier)	Covered population in percentage
1.	Srirangapatna	167	86%
2.	Mandya	648	83%
3.	Pandavapura	143	76%
4.	Nagamangala	233	78%
5.	Maddur	219	84%
6.	KR Pate	183	78%
7.	Malavalli	410	75%
8.	Ramnagarama	102	81%
9.	Chennapatna	160	85%
	9 Taluks total	**2265**	**80.66%**

Another survey in all sample villages was organized to identify persons missing during the first visit of data collectors. An additional 4% of persons with disabilities were interviewed. Therefore, overall 84% of the total sample was actually interviewed (see next chapter).

According to CBR staff, the CBR programme was actually reaching the majority of persons with disabilities. Furthermore, in their opinion the reasons why a few persons with disabilities were not being reached could vary from being elderly, having only a mild disability or being from a wealthy family. Very rarely, persons with severe disabilities were kept hidden inside the house. In one village in Srirangapatnam *taluk*, there were some bed-ridden persons with severe disabilities and not all of them were registered with the CBR programme.

A house-to-house disability survey was completed in 17 villages - two villages in each *taluk* (one small one large), except for Ramnagaram *taluk* where it was carried out in only one large village. Additional persons with disabilities were identified, some elderly and some with mild disabilities, who were not participating in CBR activities. They were all interviewed with control area questionnaires.

In the control areas, location of persons with disabilities and thus data collection was carried out with the help of lists prepared by *Anganwadi* workers. However, these lists were incomplete and not updated. Thus, some persons present in the list were not there, while many more were identified going door-to-door. Meetings were held with teachers, *Anganwadi* workers, shopkeepers and persons with disabilities to find additional persons. Based on *Anganwadi* lists, 300 persons with disabilities lived in those villages, but during the survey almost double this number were identified.

The control areas were supposed to be areas where there are no CBR activities. However, in one control area (Jayapura hubli in Mysore), it was found that Sightsavers International had started a CBR programme for persons with vision disabilities. As we will discuss later, the number of persons involved in this CBR programme was quite limited. For this reason analysis for this group, if needed, can be done separately as a special control group.

2.6 Data Entry and Cleaning

Data entry started at the end of February 2010 before the completion of data collection in the control areas. Data entry was carried out using Epiinfo® software. Consistency checks had been included in the template to identify data entry mistakes. Mistakes in data entry were very few (40 mistakes out of 500 questionnaires with about 200 questions each, a rate of 0.04%). Training on the data entry process using Epiinfo® was organized for four data entry officers. Frequent power cuts at TRDC made data entry more difficult. The process was supervised by an assistant researcher from Florence University.

The data base management/quality check were carried out by the University of Florence research lab ARCO. Data verification has been done throughout full data cross tabulations. This allowed us to capture possible inconsistencies on data. A second round of 500 questionnaires was checked and the number of mistakes due to data entry was very limited. Inconsistencies were mainly due to data collection and people were sent in the field to check for these errors of survey.

2.7 Quality of Data

As described above, a lot of attention has been devoted to data quality, starting from data collection through to data entry and data management. The only constraints were time and resources.

A preliminary data analysis in May 2010 involved a complete examination of 817 questionnaires. We found one or two inconsistencies in these 817 questionnaires (and up to three in a few cases). This relatively high rate of identified inconsistencies was sometimes due to data entry (for those 80% where no double entry was done) but mainly to mistakes in the field: errors of data codification during the interview or misunderstanding of the questions by the respondents. The team in India followed different steps in order to improve the quality of the data (see Table 13).

Table 13: Actions for questionnaire checking and field corrections

TOTAL 2 Questionnaires revised	**(a) Corrections made about mistakes in data base merging**	**(b) Data entry mistakes**	**(c) Corrections made using master list obtained from Need Assessment Form**	**d) OTHER Corrections made thanks to the help of CBR personnel's i.e. ask them to check with disabled persons and other sources**		
				Total	By phone because CBR worker knew the information	Contacting somehow the family or the person with disabilities
817 questionnaires	**Around 300**	**Around 50**	**Around 165**	**Around 300**	**Around 200**	**Around 100**

Questionnaire data were checked in Excel tables vertically (for question numbers) and horizontally (for unique ID). At the same time, they were compared to hard copies for all records. As some inconsistencies were systematic, the Indian team checked the data merging processes and identified many mistakes.

The team also compared the data collected to the information available in the Need Assessment forms completed by the CBR projects at the time of registering persons with disabilities – such as age, community participation, and Unique ID duplication. Many impossible answers (e.g. codification using inexistent codes) and wrong entries (e.g. interview data 12/12/2020) were corrected after comparison with Need Assessment forms.

Other errors were checked through actions b, c and d (see Table 13). Inappropriate answers were checked, discussed with CBR staff and corrected. Whenever needed, data collectors went back and asked the questions again to persons with disabilities and their families. Interviews were repeated for 39 out of the 100 people who were personally contacted for the second time.

For the remaining questionnaires, and those with more than 3 unclear answers, the team in India decided to opt for strategy d). They were checked with CBR staff and persons with disabilities (300 questionnaires). Some questions were firstly discussed with taluk coordinators over the phone.

This strategy sped up the process, as sending data collectors back to the field was very time-consuming and expensive. All the corrections were made between May and August 2010. The overall process was thus quite long but allowed us to improve the quality of the data.

Thus keeping in mind the activities of data correction, globally double entry was carried out for at least 30% of all questionnaires plus a double correction check for another 25% of the questionnaires.

Considering the large time consumed in the process of data revision a remark is relevant.

Although some inconsistencies are always found in surveys, some actions could have been taken in order to minimize them: a longer training, a better selection of the data collection team, the presence of data supervisors during the training, a complete double entry. These actions would probably have reduced the overall costs of the survey.

A t-test for the difference between the means of some key variables was also performed in order to check data consistency between areas of CBR and control areas (see chapters 3 and 4 for details). The quality of the data was further checked through the calculation of a series of tables (see also chapter 1, tables 1-9 and table 14-15 next chapter) comparing data collected with data in the monitoring system (i.e. Need Assessment Forms), and other information. We found good data consistency for those variables, including prevalence by type of disability, between control group areas and CBR programmes areas.

Apart from its role in the research, community survey had other usefulness for the CBR programme (Box 2).

Box 2: The survey as a tool of information about CBR programmes

The survey as an opportunity.

The survey has been an opportunity to provide information about the CBR programmes in the communities. Data collectors were asked to refer any questions from the communities to CBR workers and *taluk* CBR coordinators. The survey triggered many questions and requests from the communities and the AIFO office received many phone calls from people asking for information, notably about loans. About 50 persons contacted the AIFO office for information following the survey. They were all referred to *taluk* CBR coordinators and CBR workers.

Misuse of disability certificates, pension. The survey showed that some persons were getting disability benefits without having a disability, while other persons were disabled but were not receiving these benefits. It was found that some people with a temporary disability (like a fracture) or a mild disability, received a disability certificate and were getting a pension. In villages, persons often did not know who could get disability benefits. Legislation from different ministries regarding disabilities is not uniform. For example, one person was told that his blindness in one eye does not qualify him for a disability certificate. He asked "If I cannot get a disability certificate, why can't I get a driving licence and I am treated as a disabled person?"

In one village in Srirangapatnam *taluk,* some bed-ridden persons with severe disabilities were found, some of who were not registered with the CBR programme. They were not receiving any pension and their living conditions were very poor. So the survey team discussed this issue with one local DPO person, who wrote about it in a newspaper and thus these persons started receiving pensions.

The research team also had a meeting with Mandya district Disability Welfare Officer (part of the Government VRW scheme, they also have taluk level disability coordinators). He was informed about the misuse of disability certificates. He asked to be informed about any specific problems and promised to provide disability certificates to persons identified by the CBR programmes. The research team asked for his collaboration to inform VRWs about the research and ask for their cooperation in the research.

2.8 Limitations and Constraints

During the complex process of the survey lifecycle, we identified different types of limitations and constraints: i) lack of funding; ii) poor performance of a few trained data collectors; iii) logistic issues; iv) time to finalize tools during the piloting of the survey; and v) quality of questionnaires.

i) The insufficient funding for the survey was established during the training and piloting phases. As a result, the research coordinator decided that double entry would be limited to 20% of the questionnaires (selected randomly).

ii) A serious limitation was the poor performance of a few data collectors. The fact that by contract the persons trained were maintained till the end of the training was a costly investment. Therefore it was decided by the research team to retain poorly performing data collectors at least for the first part of the survey in order to avoid negative feedback and backlash in the communities. It is assumed that a great deal of the inconsistencies in the questionnaires was due to them.

iii) The survey faced a few logistic difficulties. For example in one village there were about 100 persons with disabilities to be interviewed. The road to this village was under construction, so everyone had to walk 3-4 km every day in the dust and heat to reach the village.

Sometimes, one data collector had to take over the work of the person being interviewed, while another one did the interview. For example, in some villages one data collector had to look after the goats and sheep of the person with disabilities, while another person conducted the interview.

There were also misunderstandings about the survey teams in some communities. For example, in one village, someone complained to the police that "some outsiders, young men and women, were together staying in one place for illegal activities". Therefore the police came to check them,

and they had to explain what they were doing. After this episode, the team decided to stay only in places well known to project staff.

There was a data card (device for internet connection) for facilitating international communications but due to lack of network coverage, it was not functional most of the time. So it was necessary to search for other local Internet services.

iv) Two types of questionnaire were elaborated during the training and tested just after. Important adjustments to the tools had been made during the training which required an intense activity during a very short space of time, as training the data collectors and elaboration of questionnaires took place at the same time.

v) There were some difficulties with specific questions. One major difficulty was identification of a time period. People had problems to determine if their situation was more difficult at the time of the survey than two or four years previously. When asked about the contribution of CBR to any improvement in a given activity of daily living respondents often answered positively even when the CBR did not contribute to this activity, but more generally to their well-being.

Better planning, a more specific selection of the data collectors and a larger pilot survey would have been desirable. Planning and tools elaboration and validation should be done through qualitative interviews with grassroots workers who can help understand various local issues. Planning should ensure respondents are available for interviews, rather than having to come back several times to find them.

SECOND PART: MAIN RESULTS, ANALYSIS & CONCLUSIONS

MAIN RESULTS, ANALYSIS & CONCLUSIONS

The analysis of data and the main results are organized as follows. In **chapter 3** we examine individual and household characteristics. We explore disability prevalence by type and by severity of disability. In **chapter 4** we carry out a descriptive analysis of the effect of CBR on the well-being and functionings of persons with disabilities. This chapter is divided into 2 sections.

Section 4.1 includes the main results comparing CBR participants (considered as "treated units") to the control group. The results are reported following the three different sub-sections of the questionnaire: the effect of CBR in different well-being domains, the participation of persons with disabilities and the outcomes of CBR according to CBR matrix and the CA. Although this is mainly a descriptive analysis, some statistical tests are carried out in order to verify the significance of the differences.

In Section 4.2 the results of the impact evaluation through propensity score matching are presented. The focus of the analysis is on some relevant material and immaterial outcomes using the data collected in the section IV of the questionnaire.

Then, in **chapter 5** we provide some feedback about the coverage of the CBR. What are the characteristics of the individuals not covered by the CBR programmes? Did they refuse to be part of the CBR? If yes, why? Is the CBR equally inclusive for different type of disabilities? Why did some participants leave the CBR? We try to answer some of these questions in the third section of this volume while others will find a more detailed answer in the qualitative research (volume 2 & volume 3 of S-PARK/CBR publications).

In **chapter 6** we focus on the effects of CBR activities at community level and on other stakeholders. Analyses reported include the descriptive results of questionnaires administered to caregivers, *Anganwadi* (nursery school) workers, village rehabilitation workers (social workers), self-help group representatives, and *Gram Panchayat* (village council) representatives.

Chapter 3.
Population Characteristics and Resources

3.1 Population Characteristics

The research collected information from 2,531 people. These 2,531 people with disabilities are divided into four main sub-groups.

A first group of 1,919 CBR beneficiaries (labelled as "CBR") were persons with disabilities who joined the CBR programme between 1997 and 2009 (see Table 14).

A second group consisted of 414 persons with disabilities who never joined the programme (Control) from neighbouring areas. These persons with disabilities were interviewed in order to make a comparison between CBR participants (also called "treated units") and non-participants (non-treated units). Among these 414 persons, 131 belong to villages not yet reached by any CBR programme, while 283 were interviewed in villages potentially reached by another CBR programme for visually impaired people (started three months before the survey). Only 20 persons among them had visual impairment , therefore we assume that the remaining persons did not participate in the alternative programme .

A third group is composed of 157 people, who had decided not to join the CBR, although the villages where they lived were reached by the CBR programme (Control_P, Table 14). They belonged to the 17 villages where a full disability survey was conducted.

Finally, a small fourth group of 41 people was considered neither as treated nor controls, and was dropped from the database (Other Treated in the tables). These included the 20 persons from control areas, where they had joined an alternative CBR activity (neither SRMAB nor MOB) and have a visual disability. The remaining 21 persons were from the 17 villages where a full disability survey was conducted. They had joined the CBR previously but decided for some reasons to leave the programme.

Table 14: Database sub-groups

Benef	Freq.	%	Cum.%
1.CBR	1,919	75.82	92.18
2.Control	414	16.36	16.36
3.Control_P	157	6.20	98.38
4.OtherTreated	41	1.62	100.00
Total	**2,531**	**100.00**	

[11]20 people of these villages had a visual disability and therefore cannot be considered as control units.
[12]This implicitly means that there are no spillover effects between persons with disabilities (see section (methodology) for further details on this assumptions).

The dataset from the survey was first merged to the other existing data (Master-List). Those existing datasets contain information on some relevant dimensions, such as disability type, caste and religion. Unfortunately, some information (especially sensitive variables like caste and religion) was not available for all units but only for persons benefiting from CBR in the research areas. This additional information (not available from the questionnaire) was obtained from the Master-List and was used to check for the heterogeneity of the results with respect to different sub-groups of people. In Table 15 for each group, the distribution[13] of the variable "type of disability" is reported. It is important to remark that this distribution is very similar to the one acquired from the Master-List (see chapter 1 tables 3 and 4, and section 2.7 on quality of data).

Table 15: Data base sub-groups and type of disabilities

	1. CBR	2. Control	3.Control_P	4.OtherTreated	Total
Convulsions	7	0	1	0	8
	0.36	0.00	0.64	0.00	0.32
Hear & Speech	367	60	17	4	448
	19.13	14.49	10.83	9.76	17.71
Intellectual	355	78	15	8	456
	18.51	18.84	9.55	19.51	18.02
Leprosy	19	3	0	0	22
	0.99	0.72	0.00	0.00	0.87
Mental illness	2	4	3	0	9
	0.10	0.97	1.91	0.00	0.36
Multiple	23	13	1	0	37
	1.20	3.14	0.64	0.00	1.46
Other	1	4	0	0	5
	0.05	0.97	0.00	0.00	0.20
Physical	984	215	103	26	1,328
	51.30	51.93	65.61	63.41	52.49
Visual	160	37	17	3	217
	8.34	8.94	10.83	7.32	8.58
Total	1,918	414	157	41	2,530
	100.00	100.00	100.00	100.00	100.00

[13]The table is calculated without weighting, so that also the absolute frequencies are reported.

In Table 16 the place where the interview was carried out is reported. In most cases the interview took place inside home.

Table 16: Main place of interview

Interview place?	%	Cum.%
Inside home	82.36	82.36
Another building	13.06	95.42
Outside in open	4.58	100.00
Total	**100.00**	

According to the data on persons with disabilities, the mean age of the four groups is similar - around 34 years, (see Table 17) except for those who did not join the programme within the "villages covered by CBR", whose mean is 10 years higher. We performed a t-test for the difference between means that confirms that this difference is significant ($p<0.001$) (we will examine this issue further in chapter 5). Thus the difference in the mean age of the two main sub-groups is not significant - this is a positive indicator of the quality of the data (see also section 2.7).

In Table 18 the castes and religions of the persons with disabilities are reported from the areas covered by CBR. As explained above, this information is not available for the control group.

Table 17: Mean age for sub-groups

Age	Mean Age	St.dev
1.Control	33.2	21.6
2.CBR	33.7	16.9
3.Control_P	43.3	21.8
4.OtherTreated	35.2	17.4
Mean	**34.2**	**18.5**

Table 18: Castes and religions of persons interviewed in the CBR group

Type of caste	CBR
Muslim	2.10
Hindu/Scheduled Caste	13.02
Hindu/Scheduled Tribe	4.81
Hindu/Upper & middle	77.67
Other religions	2.41
Total	**100.00**

According to the 2009 Mandya district report, Hindus were 95.36%, Muslims were 3.97%, and other religions were 0.7% of the Mandya district population. Among Hindus, SCs were 13.8% and STs were 0.7%. Thus it seems that CBR programme is accessible to various minorities including persons of SC and ST origins.

The data in Table 19 shows that globally CBR programme activities appear to be less accessible to women and girls with disabilities.

Table 19: Gender for sub-groups, share of female PwD

Gender	% of females
1.CBR	41.3
2.Control	44.2
3.Control_P	37.6
4.OtherTreated	53.7
Mean	**41.7**

To disentangle this issue we conducted further analysis. The gender bias in access to CBR is rejected by a statistical t-test, as the difference in sex ratio between CBR participants and control groups is not significant (p=0.11), and even weaker among those in the CBR programme and the group of people who did not participate in the CBR programmes (p=0.17). Furthermore, the proportion of women among the persons with disabilities identified through the full population survey in 17 villages is 41.5%, a result that is perfectly in line with the corresponding proportion among CBR beneficiaries. Although these data confirm that access to CBR does not have a gender bias the fact that fewer women are disabled compared to men can still be the result of both a gender bias in the recruitment of persons with disabilities and the negative tendency of selective abortion of female foetuses.

3.2 Household Resources

Table 20 explores family wealth and income. Indicators show that both CBR participants and members of the control group belong to poor households.

The poorer persons in the community live in huts and sheet-roof houses. Table 20 shows that incidence of persons with disabilities living in huts and sheet-roof houses is 16.99% in the CBR group and 25.03% in the Control group.

People with more income live in houses with tiled roofs or cement roofs (moulded). Persons with disabilities living in the better houses are 74.25% in the control areas and 82.05% in the areas covered by CBR.

Almost the same percentage (93%) of the two sub-groups own the house in which they live (Table 20). Finally, persons with disability in areas covered by CBR have better access to a toilet (33%) than people in the control group (23%, p<0.01).

Table 20: House characteristics

Kind of house?	Control	CBR	Total
Hut	2.17	8.98	7.76
Brick with sheet roof	22.86	8.01	10.66
Brick with tile roof	66.67	76.00	74.34
Moulded	7.58	6.05	6.32
Other	0.72	0.96	0.91
Total	**100.00**	**100.00**	**100.00**
Own the house or it is rented?	**Control**	**CBR**	**Total**
Owner	93.24	93.20	93.21
Rented	5.79	6.08	6.03
Other	0.97	0.72	0.76
Total	**100.00**	**100.00**	**100.00**
Toilet in your house?	**Control**	**CBR**	**Total**
Yes	23.76	32.38	30.84
No	76.24	67.62	69.16
Total	**100.00**	**100.00**	**100.00**
Your family own any land?	**Control**	**CBR**	**Total**
Yes	47.53	59.43	57.31
No	52.47	40.57	42.69
Total	**100.00**	**100.00**	**100.00**

Considering land ownership (Table 21), 47.43% of people in the control group belong to families that own land compared to 59.43% of CBR participants ($p<0.01$). However, the control group households have on average a larger amount of land.

Table 21: Land ownership

Your family own any land?	Control	CBR	Total
Yes	47.53	59.43	57.31
No	52.47	40.57	42.69
Total	**100.00**	**100.00**	**100.00**
Total Land	**Mean**	**St.dev**	
Control	71.7	106.2	
CBR	51.6	53.3	
Total	**2,333**	**100.00**	

Table 22 shows that there is no difference in the main source of drinking water between the two groups and almost all have access to water; in contrast there is a significant difference ($p<0.01$), in favour of the controls group, in the average distance between the house and the nearest source of water.

Table 22: Drinking water

Main source of drinking water?	Control	CBR	Total
Tap/Tank/Pump	99.76	98.78	98.96
Well water	0.24	1.19	1.02
Pond/River	0.00	0.02	0.02
Total	**100.00**	**100.00**	**100.00**
Distance Water Source	**Mean**	**St.dev**	
Control	21.0	47.7	
CBR	30.4	62.3	
Total	**28.8**	**60.1**	

Another indicator of deprivation is access to food. Table 23a shows that people in the control group are more likely to consider that they have enough financial resources for food (48.3%) than participants to the CBR (41%); this difference is significant ($p=0.011$), in favour of the controls. Considering main items, Table 23b indicates that there is little difference between the two groups.

Therefore it seems, from the above indicators, that CBR participants belong to slightly poorer households.

Table 23: (a) Access to Food (b) Family possessions

(a) Access to Food

Do you have enough resources for food?	Control	CBR	Total
Yes	48.25	41.00	42.29
Sometimes	38.51	42.95	42.16
No	13.24	16.05	15.55
Total	**100.00**	**100.00**	**100.00**

(b) Family possessions of main items

Own one or more of the following?	Control	CBR	Total
Scooter	16.2	13.4	13.9
Cart	3.5	8.8	7.9
Bicycle	24.4	45.6	41.9
Car	0.7	0.7	0.7
Tractor	1.4	1.0	1.1
Other	0.7	1.0	0.9
Radio	13.6	25.4	23.3
TV	56.0	50.9	51.8
Cassette	3.9	6.2	5.8
Telephone	46.6	53.4	52.2
VCR - DVD	7.6	5.9	6.2
Walkman	0.0	1.0	0.8

Table 24: Loan

Has family any loans/debts?	Control	CBR	Total
Yes	62.21	75.81	73.39
No	35.38	23.74	25.82
Don't know	2.41	0.45	0.80
Total	**100.00**	**100.00**	**100.00**

Loan availability	Mean	St.dev
Control	147,459	557,213
CBR	64,242	75,300
Loan quantity	Median	
Control	50.00	
CBR	50.00	

On average, CBR participants take out more loans (Table 24) although for lower amounts and with an identical median. This indicates that the control households suffer for some outliers that affect the results. The question does not reveal motivation for taking the loan: lack of money for consumption; to start income generation activities. It is important to remark that moneylenders are the most common source of loans (3/4). However, there is a large difference between the control group (85.26%) and the CBR beneficiaries (74.48%) since the latter also receive loans from CBR SHGs (see Table 39).

3.3 Level of Impairment

In this part of the questionnaire there were different questions concerning different types of functioning (a simple screening tool of 9 questions, based on the ICF). Table 25 (a) reports the types of impairments of persons interviewed in the areas covered by CBR and in control areas. Comparing the distribution of different impairments of the persons involved in the survey with that in the Master-List provides an indication of the quality of sampling (see section 2.2).

Table 25: (a) Type of disability on Total

Disability	Control	CBR	Total
Convulsions	0.00	0.36	0.30
Hear & Speech	14.49	19.13	18.31
Intellectual	18.84	18.51	18.57
Leprosy	0.72	0.99	0.94
Mental illness	0.97	0.10	0.26
Multiple	3.14	1.20	1.54
Other	0.97	0.05	0.21
Physical	51.93	51.30	51.42
Visual	8.94	8.34	8.45
Total	**100.00**	**100.00**	**100.00**

All the persons were also asked about the level of difficulty related to the different functionings to understand the severity of these disabilities. This information is presented in Table 25 (b).

Table 25 (b) Level and severity of disabilities

Difficulty in seeing?	Control	CBR	Total
No diff	77.86	77.85	77.85
Some diff	13.96	14.74	14.6
A lot of diff	5.05	4.28	4.42
Cannot	3.13	3.12	3.12
Total	**100**	**100**	**100**

Difficulty in hearing?	Control	CBR	Total
No diff	80.87	74.38	75.54
Some diff	6.13	9.18	8.63
A lot of diff	6.26	6.07	6.10
Cannot	6.74	10.38	9.73
Total	**100.00**	**100.00**	**100.00**

Difficulty in speaking?	Control	CBR	Total
No diff	70.16	65.95	66.70
Some diff	12.27	11.87	11.94
A lot of diff	6.26	7.73	7.47
Cannot	11.31	14.45	13.89
Total	**100.00**	**100.00**	**100.00**

Difficulty in moving?	Control	CBR	Total
No diff	37.79	34.33	34.95
Some diff	36.70	37.98	37.75
A lot of diff	21.66	25.06	24.45
Cannot	3.85	2.62	2.84
Total	**100.00**	**100.00**	**100.00**

Have loss of feelings?	Control	CBR	Total
Never	95.42	94.10	94.33
Sometime	1.69	3.74	3.37
Often	2.17	1.27	1.43
Always	0.72	0.89	0.86
Total	**100.00**	**100.00**	**100.00**

Strange behaviour?	Control	CBR	Total
Never	81.95	85.53	84.89
Sometime	9.39	9.41	9.40
Often	6.50	3.06	3.68
Always	2.17	2.00	2.03
Total	**100.00**	**100.00**	**100.00**

Have convulsions?	Control	CBR	Total
Never	93.49	90.55	91.07
Sometime	3.62	4.54	4.38
Often	1.93	2.68	2.55
Always	0.97	2.23	2.00
Total	**100.00**	**100.00**	**100.00**

Difficulty in learning?	Control	CBR	Total
No diff	51.38	49.43	49.78
Some diff	26.48	25.05	25.31
A lot of diff	16.13	16.84	16.71
Cannot	6.02	8.67	8.20
Total	**100.00**	**100.00**	**100.00**

Other disability?	Control	CBR	Total
No disability	94.21	92.92	93.15
Some disability	5.79	6.25	6.17
Many disability	0.00	0.83	0.68
Total	100.00	100.00	100.00
Total	**100.00**	**100.00**	**100.00**

The above Table (25 b) reports the weighted percentage for both groups for each level of difficulty encountered in a specific functioning. The group of CBR participants shows more difficulties in all functionings except for strange behaviours. This can be interpreted that people with more severe impairments were more likely to join the programme than those people with mild disabilities. To avoid this bias, in chapter 5, a deeper analysis is performed taking into account this variable, as well as other relevant variables through propensity score matching.

The above data show that persons classified under different groups of disabilities do not always match with the different functional difficulties they have. For example in the CBR group, only 0.36% of persons with disabilities were classified as persons who have convulsions. However, the number of persons who actually get convulsions at least sometimes, it is 9.45%.

Chapter 4.
Impactof CBR

Chapter 4.
Impactof CBR

4.1 CBR Effects: a Descriptive Analysis

In this section we present a descriptive analysis of effects of CBR activities on well-being and functionings of persons with disabilities.

In the first sub-section the level of autonomy in different ADL is considered. For each domain of ADL, we asked respondents about the impact of CBR in improving their condition.

In the second sub-section, the participation scale of persons with disabilities in the CBR and control groups is analysed.

In the third sub-section the outcomes of CBR, according to the CBR matrix and the CA, are considered. The differences between two sub-groups of people with disabilities are highlighted here and the opinions of the persons with disability from the areas covered by CBR regarding the CBR activities are considered

Although this is mainly a descriptive analysis some statistical tests are carried out to verify the significance of the differences recorded.

Autonomy in activities of daily living

Persons participating in the CBR activities have a slightly higher severity of disabilities and given the large number of persons with disability followed by each CBR worker (100-300 persons), they place more emphasis on collective activities such as SHGs and less emphasis on following individual persons with disabilities. Given this situation, how well do they achieve on ADL? How well do they do compared to the control group? What is the impact of CBR programmes on the level of autonomy of persons with disabilities?

In this sub-section the level of autonomy in various ADL is considered. We also examine the perception of CBR participants of the impact of CBR programmes and how well they achieve in ADL. We report results for both CBR participants and non-participants (control group) excluding the "non-response". All data presented here were adjusted for clustering and assigned a weighting factor. The questions on ADL were based on the WHO manual on CBR.

The ADL were grouped in seven areas in the questionnaire, therefore, this sub-section is divided in seven parts: (1) about ability to eat, to bath, to use latrine and to dress; (2) about speech and understanding difficulties; (3) movement abilities; (4) participation in community activities including employment; (5) access to education and the ability to read, write and count; (6) ability for children below 14 years old to play; and (7) about the need for help for specific activities and about who provides this help.

For all the questions, we used a simplified Likert scale with 3 ordered response choices: "I can do this activity on my own"; "I can do it with help"; and "I cannot do it at all". For each part, the respondents were also asked if the CBR programme helped them in achieving the activities mentioned.

The first set of questions explored the ability to eat, bath, use the latrine and dress (Table 26).

Table 26: ADL skills - ability to eat, take bath, use latrine & dress

Able to eat?	Control	CBR	Total
On my own	92.50	88.34	89.08
With help	6.29	9.48	8.92
Not at all	1.21	2.18	2.01
Total	**100.00**	**100.00**	**100.00**

Able to bath?	Control	CBR	Total
On my own	67.20	70.29	69.75
With help	29.10	26.09	26.62
Not at all	3.70	3.61	3.63
Total	**100.00**	**100.00**	**100.00**

Able to use latrine?	Control	CBR	Total
On my own	75.70	79.56	78.88
With help	21.39	17.26	17.99
Not at all	2.92	3.18	3.14
Total	**100.00**	**100.00**	**100.00**

Able to dress?	Control	CBR	Total
On my own	75.34	76.15	76.01
With help	21.21	20.41	20.55
Not at all	3.45	3.44	3.44
Total	**100.00**	**100.00**	**100.00**

CBR helped in basic ADL?	CBR	Without NA*	Total
Yes, a lot	11.36	31.79	76.01
Yes, somehow	20.93	58.58	20.55
It didn't help	3.44	9.63	3.44
Negative role	0.00	0.00	100.00
Not applicable (NA)	64.27	-	100.00
Total	**100.00**	**100.00**	

Here and in the rest of the volume, the column labelled as "Without NA" is calculated excluding those for whom the questions are not pertinent (i.e. not applicable NA).

We would like to inform the reader that we did not perform any test for the variables presented in the next tables because we believe that the test would be biased by the possible systematic difference due to the heterogeneity in the level of disability.

Results show that nearly 12% of people with disabilities participating in CBR are not able to eat on their own, 30% to bath, 20% to use the latrine and about 24% to dress.

At the question "Did the CBR help you to learn to eat, to bath, to use latrine and to dress?" most of the CBR participants answered that the CBR had a positive role. In particular, 31.8% of them responded "Yes, a lot" and 58.6% "Yes, somehow", while only 9.6% answered that the CBR did not help. This result shows that for participants to CBR activities, CBR contributes strongly to higher autonomy in basic ADL.

The second set of questions related to the ability to speak, to understand simple instructions, to express your needs, to use sign language, and/or to lip read (Table 27). Results are quite consistent with those of the previous sub-section on disability prevalence (see tables in section 3).

Table 27: Communication skills

Able to speak?	Control	CBR	Total
On my own	76.24	66.15	67.94
With help	13.33	17.37	16.65
Not at all	10.42	16.49	15.41
Total	**100.00**	**100.00**	**100.00**

Able to express needs?	Control	CBR	Total
On my own	80.12	75.64	76.44
With help	14.06	16.05	15.70
Not at all	5.82	8.30	7.86
Total	**100.00**	**100.00**	**100.00**

Able to understand movements/signs for communication?	Control	CBR	Total
On my own	45.54	40.93	41.56
With help	43.75	47.70	47.16
Not at all	10.71	11.37	11.28
Total	**100.00**	**100.00**	**100.00**

Able to lip-read?	Control	CBR	Total
On my own	22.43	19.17	19.62
With help	36.45	39.28	38.89
Not at all	41.12	41.54	41.49
Total	**100.00**	**100.00**	**100.00**

CBR helped in communication skills?	CBR	Without NA	Total
Yes, a lot	10.37	23.43	19.62
Yes, somehow	27.75	62.70	38.89
It didn't help	6.14	13.87	41.49
Negative role	0.00	0.00	100.00
Not applicable (NA)	55.74	-	100.00
Total	**100.00**	**100.00**	

16.49% of CBR participants cannot speak (10.42% of the control group), 6.45% cannot understand simple instruction (4.13% of the control group), 8.30% cannot express needs (5.82% of the control group); 11.37% of persons with hearing or speech impairment cannot use sign language (10.71% of the control group) and 41.5% cannot lip read (same for control group).

CBR participants (note that for 55.74% of them the question was not applicable) consider that the programme had a positive role in helping them to achieve these activities: 23.43% considered that the CBR helped a lot, 62.70% somehow while only 13.87% that it did not help.

The third set of questions examines the ability to sit, to stand, to move inside the house, to move outside the house, to walk and to relieve pain (Table 28).

Table 28: Mobility skills

Ability to sit?	Control	CBR	Total
On my own	91.43	88.46	88.98
With help	7.34	8.94	8.66
Not at all	1.22	2.60	2.36
Total	**100.00**	**100.00**	**100.00**

Ability to stand?	Control	CBR	Total
On my own	84.97	82.79	83.18
With help	9.94	10.73	10.59
Not at all	5.09	6.48	6.24
Total	**100.00**	**100.00**	**100.00**

Able to move inside house?	Control	CBR	Total
On my own	86.91	86.27	86.39
With help	10.42	9.59	9.74
Not at all	2.67	4.13	3.87
Total	**100.00**	**100.00**	**100.00**

Able to move out?	Control	CBR	Total
On my own	80.32	77.05	77.63
With help	14.51	17.41	16.90
Not at all	5.17	5.54	5.47
Total	**100.00**	**100.00**	**100.00**

Ability to walk 10 steps?	Control	CBR	Total
On my own	85.21	84.98	85.02
With help	8.97	7.85	8.04
Not at all	5.82	7.18	6.94
Total	**100.00**	**100.00**	**100.00**

Do you have aches?	Control	CBR	Total
Never	68.89	63.16	64.17
Sometimes	25.03	31.20	30.11
Often	6.08	5.64	5.72
Total	**100.00**	**100.00**	**100.00**

CBR helped in moving around?	CBR	Without NA
Yes, a lot	12.06	23.41
Yes, somehow	33.68	65.39
It didn't help	5.77	11,90
Negative role	0.00	0.00
Not applicable (NA)	48.49	-
Total	**100.00**	**100.00**

2.60% of the CBR participants are not able to sit up on their own from a lying-down position (1.22% of the control group), 6.48% cannot stand alone (5.09% of the control group), 4.13% cannot move around inside the house (2.67% of the control group), 5.54% cannot move around outside the house (5.17% of the control group), 7.18% cannot walk alone at least ten steps (5.82% of the control group) and 5.64% have often pains in the back or in the joints (6.08% of the control group).

CBR programmes participants judge positively the role of CBR programmes in helping with mobility (note that this share is calculated considering only persons to whom the question was pertinent i.e. 51.51%). In particular, 23.41% of them responded "Yes, a lot" and 65.39% "Yes, somehow" while only 11.20% answered that the CBR did not help.

The fourth set of questions examines ability to participate in family discussion and decisions, community activities, household activities and/or to find a job (Table 29).

Table 29: Participation skills

Able to participate in family discussions?	**Control**	**CBR**	**Total**
No diff	63.57	66.51	65.99
With diff	12.39	10.72	11.02
Not at all	24.04	22.77	22.99
Total	**100.00**	**100.00**	**100.00**

Able to join community activities?	**Control**	**CBR**	**Total**
On my own	47.46	54.47	53.28
With help	24.97	20.99	21.67
Not at all	27.57	24.54	25.05
Total	**100.00**	**100.00**	**100.00**

Able to do household activities?	**Control**	**CBR**	**Total**
On my own	47.98	53.43	52.51
With help	11.96	14.38	13.97
Not at all	40.05	32.18	33.52
Total	**100.00**	**100.00**	**100.00**

Do you have a job?	**Control**	**CBR**	**Total**
Full time	8.37	22.31	20.16
Part time	16.43	22.22	21.33
No job	75.19	55.48	58.52
Total	**100.00**	**100.00**	**100.00**

CBR helped in participating to above activities?	CBR	Without NA
Yes, a lot	13.10	16.68
Yes, somehow	52.47	66.80
It didn't help	12.94	16.47
Negative role	0.04	0.05
Not applicable (NA)	21.45	-
Total	**100.00**	**100.00**

Results show that persons with disabilities face barriers to inclusion due to impairment and social constraint. Interestingly, CBR participants participate more in family and community affairs than people from the control group. Only 22.77% of CBR participants reported they could not participate in family discussion and decisions (24.04% of the control group), 24.54% cannot participate in community activities (27.57% of the control group), 32.18% cannot carry out household activities (40.05% of the control group) and even more remarkably only 55.48% do not have a job compared to 75.19% of the control group.

Moreover, CBR participants believed the CBR had a positive effect (note that for 21.45% of persons with disabilities the question was not applicable). In particular, 16.68% of them answered Yes, a lot, 66.80% Yes, somehow, 16.47% answered that the CBR did not help while 0.05% (i.e. one person) answered that CBR had a negative role in enhancing his/her functionings.

The fifth set of questions concerns ability to go to school, to read, count and/or to write (Table 30). Note that some of these questions are related to children only.

Table 30: School attendance and Literacy skills

Do you go to school?	Control	CBR	Total
Yes	61.54	60.34	60.69
Below my age	10.26	6.06	7.27
No	28.21	33.60	32.04
Total	**100.00**	**100.00**	**100.00**

Able to read?	Control	CBR	Total
On my own	23.66	32.39	30.86
With help	8.59	11.54	11.02
Not at all	67.75	56.08	58.11
Total	**100.00**	**100.00**	**100.00**

Able to count?	Control	CBR	Total
On my own	59.90	61.90	61.55
With help	8.47	14.24	13.24
Not at all	31.63	23.86	25.21
Total	**100.00**	**100.00**	**100.00**

Able to write?	Control	CBR	Total
On my own	29.89	35.19	34.27
With help	9.59	17.79	16.36
Not at all	60.53	47.02	49.37
Total	**100.00**	**100.00**	**100.00**

CBR helped in going to school and literacy skills?	CBR	Without NA
Yes, a lot	7.49	11.09
Yes, somehow	42.85	63.44
It didn't help	17.20	25.47
Negative role	0.00	0.00
Not applicable	32.46	-
Total	**100.00**	**100.00**

60.34% of CBR participants go to school (61.54% of the control group), 32.34% are able to read (23.66% of the control group), 61.90% are able to count (59.90% of the control group) and finally more than 35% are able to write (30% of the control group). Most CBR participants consider that the CBR had a positive role on their achievement in this domain. In particular, considering only applicable cases (i.e. 67.54%) CBR participants answered Yes, a lot 11.09% and Yes, somehow 63.44%, while 25.47% answered that the CBR did not help. This share is higher than for the other sets of functionings.

The sixth set of questions is more diverse and relates to ability to play like other children, level of dependence on caregivers and who are the main caregivers (Table 31). Note that the first two questions relate only to children[14].

Table 31: Playing skills, breastfeed and need for help in ADL

Able to play like other (child)?	Control	CBR	Total
Yes	59.68	61.70	61.19
No (less able)	30.65	15.22	19.12
No play	9.68	23.09	19.69
Total	**100.00**	**100.00**	**100.00**

[14]The table is not presented for the question 6.28 Is your child breast fed like other children? (for small children below 1 yr) because very few cases were recorded.

CBR helped in learning to play and to breastfeed (for women)?	CBR	Without NA	Total
Yes, a lot	1.10	20.15	61.19
Yes, somehow	3.60	65.93	19.12
It didn't help	0.76	13.92	19.69
Negative role	0.00	0.00	
Not applicable	94.54	-	
Total	**100.00**	**100.00**	

Need help in any ADL?	Control	CBR	Total
Some help	21.33	19.58	19.89
A lot of help	20.85	19.15	19.45
No help needed	57.82	61.27	60.66
Total	**100.00**	**100.00**	**100.00**

Who provide help in ADL	%
Father	3.30
Mother	57.00
Sister	1.95
Brother	1.64
Grandparents	2.71
Teacher	0.06
Friends	0.36
Husband	2.31
Wife	20.79
Son	1.36
Daughter	2.89
Other	5.64
Total	**100.00**

In particular, 23.09% of child CBR participants cannot play at all (9.68% for the control group). Most of the CBR participants considered that the CBR had a positive role on the acquisition of capacity to play or for a new mother to breastfeed, but the number of respondents is very low (only 5.46% of participants are concerned). 86% answered that CBR helped them either a lot (20.15%) or somehow (65.93%).

The last data reported in Table 31 are related to the need for help in daily living activities and identifying the main caregivers in the family. A majority of caregivers are female (83%) with the following distribution: mainly mothers (57%), wives (21%) sisters (1.95%) and daughters (2.89%). Fathers represent 3.30% of the total and husbands 2.31%. These results show that care giving is essentially a woman's duty.

Level of participation and opportunities

In section 3 we used the WHO participation scale to assess participation restriction and stigma. This 18-item instrument measures beneficiaries' perceived participation in the domains of the ICF (Van Brakel et al., 2006). Using such a scale provides measurable and comparable information about the impact of the CBR programmes in changing attitudes and promoting integration of persons with disabilities at the time of assessment.

The questionnaire respondents were asked to compare their situation to other non-persons with disability of the same age, gender, social background and village, community, or city. The idea was to measure subjective perception of equality of opportunity. Only people with disabilities above 14 years were requested to answer this part of the questionnaire. We used a three-level Likert scale to assess the level of participation in each activity: "Yes I do", "No I don't" and "Sometimes I do". We also used a four-level Likert scale to measure how problematic participation in an activity might be for the respondent: "not a problem", a "small problem", a "medium problem" or a "large problem". This also gives an idea of the value attached to each aspect (action or dimension considered), which is important in deciding whether or not to implement specific activities.

Results show that persons with disabilities perceive that they have fewer opportunities than their peers (see Table 32). They have fewer opportunities and participation is also often perceived as a problem. For example, only 26.35% felt that they have the same access to employment as their peers: 21.38% felt that they have sometimes had the same opportunity to find a job, and 52.27% felt that they never had the same opportunity. These results highlight the difference in level of opportunities as perceived by persons with disabilities compared to by their non-disabled peers in the same communities. Furthermore, most people with disabilities (52.89%) consider this as a large problem.

The CBR programmes had a positive effect on many dimensions of well-being of people with disabilities, as shown in the impact evaluation analysis reported in section 4.2, and they perceive these changes quite clearly. The activities carried out by the CBR programmes, and the SHGs in Mandya and Ramanagaram districts, were able to expand, directly and indirectly, the capability set of participants by reducing social and physical barriers. However the CBR apparently has no significant impact on some dimensions of well-being as shown by the analysis below.

Table 32: WHO Participation Scale - Opportunities and Difficulties faced

Do you have equal opportunities as your peers to find a job?	Control	CBR	Total
Yes	21.72	27.23	26.35
No	55.16	51.72	52.27
Sometime	23.11	21.05	21.38
Total	**100.00**	**100.00**	**100.00**

How big problem is it for you to find job?	Control	CBR	Total
No problem	20.18	24.36	23.70
Small problem	2.77	3.53	3.41
Medium problem	20.65	19.88	20.00
Large problem	56.40	52.23	52.89
Total	**100.00**	**100.00**	**100.00**

Do you work as hard as your peers do?	Control	CBR	Total
Equal	14.63	23.34	21.96
No	61.02	50.53	52.19
Sometime	24.35	26.13	25.85
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to work as hard as your peers?	Control	CBR	Total
No problem	11.71	19.18	18.00
Small problem	4.16	4.61	4.54
Medium problem	22.19	26.39	25.73
Large problem	61.94	49.81	51.73
Total	**100.00**	**100.00**	**100.00**

Do you contribute economically to the household in ways similar to your peers?	Control	CBR	Total
Equal	15.41	29.79	27.51
No	74.11	51.91	55.43
Sometime	10.48	18.30	17.06
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to contribute economically to the household as much as your peers do?	Control	CBR	Total
No problem	17.10	29.14	27.23
Small problem	1.54	3.18	2.92
Medium problem	10.48	18.58	17.29
Large problem	70.88	49.11	52.56
Total	**100.00**	**100.00**	**100.00**

Do you make visits outside your village or neighbourhood, as much as your peers do?	Control	CBR	Total
Equal	44.53	49.72	48.90
No	27.12	20.89	21.88
Sometime	28.35	29.39	29.22
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to make visits outside your village or neighbourhood?	Control	CBR	Total
No problem	43.60	45.51	45.21
Small problem	1.85	5.54	4.95
Medium problem	26.81	26.40	26.46
Large problem	27.74	22.56	23.38
Total	**100.00**	**100.00**	**100.00**

Do you take part in festivals and rituals as your peers do?	Control	CBR	Total
Equal	38.98	46.97	45.71
No	31.74	21.56	23.17
Sometime	29.28	31.47	31.12
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to take part in festival and ritual?	Control	CBR	Total
No problem	38.06	43.68	42.79
Small problem	2.16	4.85	4.43
Medium problem	26.81	28.02	27.83
Large problem	32.98	23.44	24.95
Total	**100.00**	**100.00**	**100.00**

Do you take part in casual social or recreation activities as your peers?	Control	CBR	Total
Equal	28.19	40.26	38.34
No	50.85	26.94	30.73
Sometime	20.96	32.80	30.92
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to take part in casual social or recreation activities?	Control	CBR	Total
No problem	28.19	37.64	36.14
Small problem	3.08	4.33	4.13
Medium problem	20.34	27.69	26.52
Large problem	48.38	30.34	33.20
Total	**100.00**	**100.00**	**100.00**

Are you as socially active as your peers are?	Control	CBR	Total
Equal	54.08	53.48	53.58
No	24.04	20.91	21.40
Sometime	21.88	25.61	25.02
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to be as socially active as your peers	Control	CBR	Total
No problem	51.62	51.24	51.30
Small problem	2.16	3.59	3.37
Medium problem	19.72	24.12	23.42
Large problem	26.50	21.04	21.91
Total	**100.00**	**100.00**	**100.00**

Do you receive the same respect in your community as your peers?	Control	CBR	Total
Equal	80.28	82.22	81.91
No	2.77	3.48	3.37
Sometime	16.95	14.30	14.72
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to receive the same respect in the community as your peers do?	Control	CBR	Total
No problem	79.97	81.58	81.32
Small problem	0.31	1.19	1.05
Medium problem	14.18	12.27	12.57
Large problem	5.55	4.97	5.06
Total	**100.00**	**100.00**	**100.00**

Do you have the same opportunity to take care of your appearance as your peers?	Control	CBR	Total
Equal	63.52	60.59	61.06
No	13.60	14.61	14.45
Sometime	22.88	24.80	24.50
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to take care of your appearance	Control	CBR	Total
No problem	55.48	56.10	56.00
Small problem	7.73	5.70	6.02
Medium problem	21.02	22.17	21.99
Large problem	15.77	16.03	15.99
Total	**100.00**	**100.00**	**100.00**

Do you visit other people in the community as often as your peers do?	Control	CBR	Total
Equal	32.51	43.42	41.69
No	36.37	26.11	27.74
Sometime	31.13	30.44	30.55
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to visit other people in the community as often as your peers do??	Control	CBR	Total
No problem	31.89	41.51	39.98
Small problem	1.85	3.88	3.56
Medium problem	31.74	29.18	29.59
Large problem	34.52	25.42	26.87
Total	**100.00**	**100.00**	**100.00**

Do you move around inside & outside the village or neighbourhood just as your peers do?	Control	CBR	Total
Equal	52.54	59.59	58.47
No	19.42	12.79	13.84
Sometime	28.04	27.62	27.69
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to move around & outside the village or neighbourhood as your peers do?	Control	CBR	Total
No problem	49.15	55.05	54.12
Small problem	3.70	5.43	5.16
Medium problem	26.50	24.36	24.70
Large problem	20.65	15.16	16.03
Total	**100.00**	**100.00**	**100.00**

In your village/neighbour-hood do you visit all public or common places as your peers do?	Control	CBR	Total
Equal	41.45	49.81	48.48
No	29.28	23.02	24.01
Sometime	29.28	27.17	27.51
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to visit all public or common places as your peers do?	Control	CBR	Total
No problem	40.52	46.86	45.85
Small problem	2.77	3.94	3.75
Medium problem	27.43	26.16	26.36
Large problem	29.28	23.04	24.03
Total	**100.00**	**100.00**	**100.00**

In your home do you do housework as your peers do?	Control	CBR	Total
Equal	42.68	47.14	46.43
No	38.52	33.31	34.14
Sometime	18.80	19.55	19.43
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to do housework in your home?	Control	CBR	Total
No problem	36.37	44.24	42.99
Small problem	9.39	4.99	5.69
Medium problem	20.03	17.72	18.08
Large problem	34.21	33.05	33.23
Total	**100.00**	**100.00**	**100.00**

In family discussions does your opinion count as much as anyone else's?	Control	CBR	Total
Equal	66.72	70.78	70.14
No	17.26	18.65	18.43
Sometime	16.03	10.57	11.43
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to have your opinion considered in the family discussion?	Control	CBR	Total
No problem	65.79	70.59	69.78
Small problem	1.85	1.20	1.30
Medium problem	16.95	10.16	11.23
Large problem	15.41	18.06	17.64
Total	**100.00**	**100.00**	**100.00**

In your home are the eating utensils you use kept with those used by other persons?	Control	CBR	Total
Equal	98.46	98.12	98.18
No	1.54	1.60	1.59
Sometime	0.00	0.28	0.24
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to have your utensils kept in the same place with those of other persons?	Control	CBR	Total
No problem	98.46	98.64	98.62
Small problem	0.00	0.20	0.17
Medium problem	0.00	0.31	0.26
Large problem	1.54	0.85	0.96
Total	**100.00**	**100.00**	**100.00**

Do you help other people as much as your peers do?	Control	CBR	Total
Equal	14.68	30.89	28.32
No	48.84	37.06	38.93
Sometime	36.48	32.05	32.75
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to help other people?	Control	CBR	Total
No problem	15.30	31.39	28.84
Small problem	4.95	4.96	4.96
Medium problem	39.26	30.15	31.59
Large problem	40.50	33.50	34.61
Total	**100.00**	**100.00**	**100.00**

Are you comfortable meeting new people as much as your peers are?	Control	CBR	Total
Yes	59.69	60.99	60.79
No	22.33	14.35	15.61
Sometime	17.99	24.66	23.61
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to meet new people?	Control	CBR	Total
No problem	50.07	56.59	55.56
Small problem	10.54	5.03	5.90
Medium problem	17.37	23.53	22.55
Large problem	22.02	14.85	15.98
Total	**100.00**	**100.00**	**100.00**

Do you feel confident to try to learn new things as much as your peers are?	Control	CBR	Total
Equal	34.05	47.84	45.65
No	43.76	23.98	27.12
Sometime	22.19	28.18	27.23
Total	**100.00**	**100.00**	**100.00**

How big a problem is it for you to learn new things?	Control	CBR	Total
No problem	30.04	41.01	39.27
Small problem	6.78	8.17	7.95
Medium problem	20.34	26.14	25.22
Large problem	42.84	24.67	27.55
Total	**100.00**	**100.00**	**100.00**

27% of CBR participants have the same opportunity to find a job compared with 21% of the control group; in areas without CBR, the issue is also salient. We found a 9% difference between CBR participants and the control group in their capacity or ability to work as much as their peers. Table 32 shows that CBR participants are often (29.79%) or sometimes (18.3%) as able to contribute economically to the household as their peers, compared with the control group (15.41% and 10.48% respectively). Contributing financially is a major issue, especially in control areas, where 70.88% of respondents found it was a large problem compared to 49.11% for CBR participants.

Looking at participation in social events – such as festivals, visits to other communities, community activities and casual social and recreational activities – the gap compared to peers' participation is less important than in employment. But this gap reflects physical, social and attitudinal barriers.

The level of participation in community activities is different between CBR participants and the control group. A limited difference is observed for visits outside the village, but a wider difference in favour of CBR participants is recorded for participation in rituals and festivals and in casual social and recreational activities, showing that the CBR is effective in reducing stigma and promoting social inclusion in the community.

There is no strong difference between the two groups in being as socially active as their peers and in the importance of the problem it represents: in both cases about half the group consider it is somehow an issue. Lack of respect by peers is felt by only a minority of people in both groups, as 82% reported they have equal respect in the community as their peers.

Taking care of appearance shows almost no difference between the two groups.

The difference observed between CBR participants and non-participants in the opportunity to visit other people in the community, in moving around inside and outside the village or in public and common places, is related to stigma and to the lack of available assistive devices. People with disabilities have about 25% less opportunity than their peers in all these activities.

CBR participants are slightly more active in housework but a third answered that they have less opportunities than their peers in this matter.

Table 32 shows that 70% of CBR participants have their opinion taken into account in family decisions at the same level as their peers. The result is similar for non-participants, indicating that stigma within families is less prevalent than in the larger community.

No difference is found between the groups as to where the eating utensils are kept (Table 32). Consequently this is not considered as a large problem.

Conversely, the opportunity to help others as much as peers do is perceived as a major difficulty. More than a third of respondents reported they help less compared to their peers, and a large difference was found between CBR participants (30.89% help equally) and non-participants (14.68%). Both CBR programmes are aware of this issue and are tackling it through the development of SHG activities.

Meeting new people is perceived as an issue in both participant and non-participant groups (40% are uncomfortable about it). This shows again how negative attitudes towards persons with disabilities can be.

27.12% of respondents overall felt less confident than their peers in learning new things (Table 32) with a large difference between CBR participants (43.76%) and non-participants (23.98%). This is perceived as a major issue by CBR participants (Table 32).

Overall the level of opportunities for participation and social inclusion is lower for persons with disabilities compared to their peers. This level varies widely according to different aspects of participation. In some cases the difference is minimal, while in others the difference is very high. Results reported in these tables show the potential role of CBR activities in increasing the opportunities for persons with disabilities especially in activities related to the larger community.

To conclude, it is important to point out that, although the impact of both CBR programmes on fighting discrimination and attitudes seems significant, there is space for improvement. Expanding CBR activities where they are not present and improving the quality and the range of CBR activities are vital in order to reduce social and physical barriers and to enable persons with disabilities to be more active in their community. While some results can be delivered quickly by the CBR programmes, many of the issues related to participation will take time to be addressed. This section reports the results related to the part of the questionnaire that was developed to evaluate more specifically the support received from the CBR programme in the five areas used in the CBR matrix developed by WHO. As mentioned in the theoretical section, the CBR matrix components can easily be combined with most of the CA domains to conceptualize and to evaluate the impact on well-being. In the last part of this section, the responses to questions about overall life satisfaction, the domain of health (in line with the quality of life approach) and their opinion of CBR activities are discussed. Information in the questionnaire was collected for current and past periods. However, in the following tables, which report a descriptive analysis, only the current period (2009) is described for the sake of simplicity. The other information related to past periods will be used in the impact analysis in the next section. According to the data, most of the children with disabilities (95%, Table 33) received the triple vaccine (DPT: Diptheria, Pertusis and Tetanus). Furthermore, there is no difference in CBR members' families and control area families, meaning that coverage is high.

Table 33: Vaccine (DPT) coverage for children

Did the child get triple vaccine?	Control	CBR	Total
Yes	95.35	95.17	95.24
No	2.33	3.54	3.06
Don't know	2.33	1.29	1.70
Total	**100.00**	**100.00**	**100.00**

CBR effects and subjective well-being from a CA perspective

Nearly 30% of people with disabilities have received a specialist visit with a slightly higher share in the control group (Table 34). 16.63% report that they take medicine regularly, this is higher for the CBR group. There are problems in access to the medicine (42.40%), but the problem is lower for the CBR participants. The difference in accessing the necessary mobility aid or appliance is marked - 13.52% persons participating in CBR received an appliance, compared with 7.01% for the non-CBR participants.

Table 34: Medical treatment

Have you ever visited a specialist for check-up or special treatment or surgery?	Control	CBR	Total
Yes	32.17	29.59	30.05
No	67.83	70.41	69.95
Total	**100.00**	**100.00**	**100.00**

Do you have to take any medicines regularly?	Control	CBR	Total
Yes	14.96	16.99	16.63
No	85.04	83.01	83.37
Total	**100.00**	**100.00**	**100.00**

If yes, Is receiving medicines a problem for you?	Control	CBR	Total
Yes	47.54	41.53	42.40
No	52.46	58.47	57.60
Total	**100.00**	**100.00**	**100.00**

Do you have or you have received any mobility aid or an appliance?	Control	CBR	Total
Yes	7.01	13.52	12.36
No	92.99	86.49	87.65
Total	**100.00**	**100.00**	**100.00**

Concerning education, the proportion of persons with disabilities without education is high (around 48%, see Table 35). However, it is important to note that this level is lower for CBR participants (46.15%) compared to non-CBR participants (58.96%). The level of education is higher for the CBR participants especially in the higher classes (from class eight upward). Indeed the average total number of years attended is higher for CBR participants - 8.03 years compared with 6.03 years. However, it is important to remember here that non-CBR participants could include older persons and persons with mild disabilities, as we will see later (chapter 5), so a descriptive statistical analysis, although important, is not appropriate for impact evaluation and an analysis based on propensity score matching (see section 4.2) is necessary.

Table 35: Education characteristics

Level of education?	Control	CBR	Total
No education	58.96	46.15	48.39
Class one	2.23	1.17	1.35
Class two	3.46	1.68	1.99
Class three	2.47	2.82	2.76
Class four	3.46	3.26	3.29
Class five	4.94	4.58	4.65
Class six	3.71	3.40	3.45
Class seven	7.66	7.37	7.42
Class eight	2.23	3.10	2.95
Class nine	2.23	4.88	4.42
Class ten	4.94	12.27	10.99
PUC 1st year	0.25	1.49	1.27
PUC 2nd Year	2.23	4.63	4.21
3 years techn. Course	0.99	0.88	0.90
University	0.25	2.33	1.97
Total	**100.00**	**100.00**	**100.00**

How many years in total did you go to school/college, etc...	Mean	St. dev
Control	6.44	3.32
CBR	8.03	3.41

Did you ever receive a Government scholarship or allowance?	Control	CBR	Total
Yes	38.36	38.89	38.82
No	61.01	60.74	60.77
Don't know	0.63	0.37	0.41
Total	**100.00**	**100.00**	**100.00**

Are you going to or have you ever been to school, university or did you received any kind of education?	Control	CBR	Total
Yes	29.74	22.16	23.32
No	70.26	77.84	76.68
Total	**100.00**	**100.00**	**100.00**

There are no differences between the two groups in terms of scholarships received from the government. For the question related to educational enrolment in courses in 2009, the result is higher for the control areas.

Table 36: Employment characteristics (2009)

Did you ever participate in a job training or skills training course or apprenticeship?	CBR	Total
Yes	4.84	4.84
No	95.16	95.16
Total	**100.00**	**100.00**

Do you have a job/work for which you earn money?	Control	CBR	Total
Yes	23.04	38.96	36.43
Food only	3.99	5.95	5.64
No	72.96	55.09	57.93
Total	**100.00**	**100.00**	**100.00**

On average how many hours per day you work?	Mean	St. dev
Control	5.65	3.02
CBR	6.33	2.47

Earn per day?	Mean	St. dev
Control	80.41	52.87
CBR	73.29	59.69

Food/Accommodation included?	Control	CBR	Total
Yes	43.96	64.10	61.91
No	56.04	35.90	38.09
Total	**100.00**	**100.00**	**100.00**

The participation in job training is 4.84% for CBR participants (Table 36). In 2009 there were many persons without a job (nearly 58%). Here, the difference between CBR participants and the control group persons with disabilities is remarkable - 55% for the former and almost 73% for the latter. This is confirmed by the average hours worked per day, which is higher for CBR participants (6.33 hours compared with 5.65 hours). The level of average earning per day is quite low (less than 80 rupees) and it is a little lower for the CBR areas, especially if hours of work are considered.

Participation in SHGs has also been explored. 23% of CBR participants are also members of SHGs (around 400 persons). This high proportion is quite significant and demonstrates the active participation of the persons with disabilities in the CBR activities (Table 37). Furthermore, of these members, 12.24% have a role of responsibility within the SHG. The CBR programmes provide the possibility to join savings schemes. 98% of SHG members save money, the average saving is 2,172 rupees (median 1,950).

Table 37: Membership of Self Help Groups

Are you a member of a Self-help group?	Control	CBR	Total
Yes	0.63	17.75	14.91
No	99.37	82.25	85.09
Total	**100.00**	**100.00**	**100.00**

If you are a member, Have you ever been given a responsible role in the self-help group?	Control	CBR	Total
Yes	0.00	12.24	12.20
No	100.00	87.76	87.80
Total	**100.00**	**100.00**	**100.00**

If you are a member, how many rupees have you saved so far in SHG?	Mean	St. dev
Control	-	-
CBR	2,172	2,360

Table 38: Pension and Loan

Do you receive any pension or allowance?	Control	CBR	Total
Yes	54.73	83.71	78.69
No	45.27	16.29	21.31
Total	**100.00**	**100.00**	**100.00**

Do you received benefit of any loan/scheme in 2009?	Control	CBR	Total
Yes	42.68	54.99	52.95
No	55.40	44.74	46.51
Don't know	1.92	0.27	0.54
Total	**100.00**	**100.00**	**100.00**

The percentage of persons receiving a monthly disability pension is remarkably higher for CBR participants (Table 38). According to the data 83.71% of the CBR persons receive pension against 54.73%. The impact of CBR seems very strong in this case: only 16.29% of persons with disability in CBR groups do not receive monthly pension compared with 45.27% of the control group. The access to loans for both groups is quite high (around 50%) but it is higher for CBR participants.

Loans have different sources: government scheme; bank loan; CBR/SHG saving schemes; Stri Shakthi SHG; DPO saving schemes and moneylenders.

Table 39 reports the share of the access to these different sources for CBR beneficiaries and the control group. The moneylenders are the main source of credit. It is relevant to note, however, that CBR participants are less likely to depend on this type of loan (74.48%) than the control group (85.26%): this difference has been confirmed as statistically significant after performing a t-test ($p<0.001$).

Table 39: Share of access to loans by source (multiple choice available)

Source of loan	Control	CBR	Total
Government scheme	1.28	3.29	3.02
Bank loan	12.82	20.13	19.15
CBR / SHG	0.00	7.29	6.31
SS / SHG	6.41	9.41	9.01
DPO	0.64	1.32	1.23
Money lender	85.26	74.48	75.92
Other	0.00	0.24	0.21

Table 40 illustrates that the level of close friends outside the family and marriage status are very similar for the two groups. The proportion of households where both husband and wife have a disability is almost the same, although lower for CBR (8.81%). These data are disaggregated for gender. It is interesting to note that females are more likely than males to marry a person with disabilities. Female behaviour is significantly different between the two groups. If marrying a non-disabled person can be seen as evidence of social inclusion, then the CBR programme seems to increase this opportunity, especially for females.

Table 40: Friends and family

Do you have any close friends outside the family?	Control	CBR	Total
Yes	83.93	81.54	81.94
No	16.07	18.46	18.06
Total	**100.00**	**100.00**	**100.00**

Family status	Control	CBR	Total
Married	44.53	42.41	42.74
Never	44.69	51.30	50.26
Separated	1.85	1.82	1.83
Divorced	0.31	0.12	0.15
Widow	5.86	3.54	3.91
Remarried	2.77	0.80	1.11
Total	**100.00**	**100.00**	**100.00**

If yes, is your husband/wife a person with disability?	Control	CBR	Total
Yes	10.40	8.81	9.07
No	89.60	91.19	90.93
Total	**100.00**	**100.00**	**100.00**

If yes, is your wife a person with disability? (only for males)	Control	CBR	Total
Yes	5.31	7.13	6.82
No	94.69	92.87	93.18
Total	**100.00**	**100.00**	**100.00**

If yes, is your husband a person with disability? (only for females)	Control	CBR	Total
Yes	21.79	12.13	13.65
No	78.21	87.87	86.35
Total	**100.00**	**100.00**	**100.00**

Social exclusion, evidenced as non-participation in community activities, concerns a third of people with disabilities and it seems higher for CBR participants (Table 41). Again, this has to be taken with caution given the small difference. Different factors should be controlled such as age, gender and type and level of disability.

Table 41: Participation in community activities, DPOs

Do you participate in the community activities like sports, festivals, religious functions, drama, dance, etc.?	Control	CBR	Total
Yes	69.54	66.35	66.89
No	30.46	33.65	33.11
Total	**100.00**	**100.00**	**100.00**

Are you a member of a DPO?	Control	CBR	Total
Yes	0.63	17.75	14.91
No	99.37	82.25	85.09
Total	**100.00**	**100.00**	**100.00**

If yes, have you ever held a responsible position in the DPO?	Control	CBR	Total
Yes	5.00	11.52	11.13
No	95.00	88.48	88.87
Total	**100.00**	**100.00**	**100.00**

If yes, have you ever held a responsible position in the DPO?	Control	CBR	Total
Yes	5.00	11.52	11.13
No	95.00	88.48	88.87
Total	**100.00**	**100.00**	**100.00**

Do you participate in Gram Sabha's (in rural areas) or Ward committee meetings (semi-urban or urban areas)?	Control	CBR	Total
Yes	5.62	20.18	17.84
No	94.38	79.82	82.16
Total	**100.00**	**100.00**	**100.00**

Considering the participation in DPOs, 17.75% of CBR participants are members, against only 0.63% in control areas. This is a very important signal of the emancipation and empowerment developed by CBR activities (one can be a member of a DPO without joining a CBR programme). Among these DPO members, 11.52% have a responsible role.

A larger share of CBR participants is actively involved in community life at large. Indeed 20.18% participate in *Gram Sabhas* (in rural areas) or in Ward Committee (in semi-urban or urban areas) in comparison with 5.62% of people with disabilities in control areas.

76.35% of persons with disabilities in CBR programmes received a disability certificate compared with 44.56% in the control group, Table 42. 69.21 % against 38.92% received a disability identity card and a larger proportion of CBR participants have a bus or train pass for persons with disabilities. These are signals of the fact that CBR increases the access to services and the rights of people with disabilities.

Table 42: Disability Benefits and certificate

Have you received the disability certificate?	Control	CBR	Total
Yes	44.56	76.35	70.74
No	54.70	23.42	28.94
Don't know	0.73	0.24	0.32
Total	**100.00**	**100.00**	**100.00**

Have you received the disability Identity card?	Control	CBR	Total
Yes	38.92	69.21	63.88
No	60.34	30.67	35.89
Don't know	0.73	0.12	0.23
Total	**100.00**	**100.00**	**100.00**

If yes, do you also have a bus or a train pass for disabled persons?	Control	CBR	Total
Yes	8.47	18.80	16.98
No	91.53	81.20	83.02
Total	**100.00**	**100.00**	**100.00**

Considering more immaterial aspects of well-being such as dignity and respect (Table 43), 65.44% of the CBR participants answered that they never feel embarrassed going out compared with 55.34% of the control group (always embarrassed 7.53% for CBR and 11.44% for control).

Although the "feel respected" response is quite similar, the share again is in favour of the CBR participants compared to the control group (Table 43). It is also important to note that 3.03% of the persons with disabilities feel they are never respected.

Another significant difference is found in the opportunity to express opinion and to be listened to in the community. The difference is largely in favour of those persons with disabilities who participate in CBR programmes (38.82% rather than 20.71% of the control group, Table 43). This is also confirmed in the results related to taking decisions in the family, although the difference is less marked. Also, the capacity to take care of oneself is higher for CBR participants, as well as in spending leisure time with friends.

In the life satisfaction aspect we found that overall only 14.13% of the persons with disabilities interviewed feel completely satisfied with their life, while 52.65% feel rather satisfied. The sum of positive answers is thus 66.78%. Among the CBR group it is important to note that 15.17% feel completely satisfied against 8.60% for the control group. Moreover, only 6.77% of CBR participants answer that they are not at all satisfied compared to 12.90% of the control group.

The same question is asked again specifying a relevant domain for persons with disabilities which is health (Table 43). The first important thing to notice is that most persons are satisfied with their health – 80.28% say they are rather or completely satisfied with their health in general, compared to the overall satisfaction with life of 66.78%. This confirms that the well-being of people with disabilities is multidimensional; health (and probably well-being) does not determine the level of satisfaction with life of a person with disabilities. The second observation is similar to the one of the previous table: the CBR participants are more satisfied than the control group (Table 43). Another important result is that only 2.97% of people with disabilities participating to the CBR programmes are not at all satisfied.

Table 43: Respect, participation, autonomy

Can you go out of the house without feeling embarrassed?	**Control**	**CBR**	**Total**
Always embarrassed	11.44	7.53	8.15
Often embarrassed	7.42	5.76	6.02
Sometime embarrassed	25.81	21.28	21.99
Never embarrassed	55.34	65.44	63.84
Total	**100.00**	**100.00**	**100.00**

Do you usually feel respected in your own community?	**Control**	**CBR**	**Total**
Never	3.71	2.90	3.03
Sometime	11.44	8.14	8.66
Often	10.51	10.16	10.21
Always	74.34	78.81	78.10
Total	**100.00**	**100.00**	**100.00**

Can you express your views and participate in the community decisions?	**Control**	**CBR**	**Total**
Never	51.63	34.60	37.29
Sometime	16.38	12.29	12.94
Often	11.28	14.29	13.81
Always	20.71	38.82	35.96
Total	**100.00**	**100.00**	**100.00**

Does your family consider your views in taking decisions?	Control	CBR	Total
Never	15.77	19.09	18.56
Sometime	11.13	4.71	5.72
Often	14.53	7.10	8.27
Always	58.58	69.10	67.44
Total	**100.00**	**100.00**	**100.00**

Are you able to keep yourself clean and tidy?	Control	CBR	Total
Never	6.51	5.27	5.47
Sometime	14.57	9.18	10.03
Often	21.71	16.66	17.45
Always	57.21	68.89	67.04
Total	**100.00**	**100.00**	**100.00**

Can you spend leisure time with your friends?	Control	CBR	Total
Never	16.08	17.10	16.94
Sometime	35.24	20.77	23.06
Often	27.82	34.26	33.24
Always	20.86	27.87	26.76
Total	**100.00**	**100.00**	**100.00**

How satisfied are you with your life in general?	Control	CBR	Total
Not at all	12.90	6.77	7.75
Little	24.89	25.59	25.48
Rather	53.61	52.47	52.65
Completely	8.60	15.17	14.13
Total	**100.00**	**100.00**	**100.00**

How satisfied are you with your health in general?	Control	CBR	Total
Not at all	8.30	2.97	3.82
Little	13.83	16.29	15.90
Rather	55.92	50.88	51.68
Completely	21.96	29.86	28.60
Total	**100.00**	**100.00**	**100.00**

Finally, the participants almost always answered "yes" (99.47%) to the question of whether they like any CBR activity (Table 44). The activities they like most are home visits (80.72%) followed by health awareness, aids/appliances support and referral services. However 28.42% answered "yes" when asked whether there are any activities they do not like. For this aspect, we have reported for the total population of CBR beneficiaries and (in brackets) for the 28% of people who declare not to like one or more activities. The responses to this question are more scattered. Least liked but with less than 5% for all CBR beneficiaries is training for politics, followed by aids/appliances support (3.69%) and assistance for social activities (2.45%).

Although the results seem extremely good, these last indications suggest that it could still be possible to improve the overall quality of the CBR activities.

Table 44: Perception of CBR activities

Are there any aspects of CBR programme/worker that you like?	CBR	CBR	Total
Yes	99.47	2.97	3.82
No	0.53	16.29	15.90
Total	100.00	50.88	51.68
Completely	21.96	29.86	28.60
Total	**100.00**	**100.00**	**100.00**

If yes which ones?	%
Home visit	80.72
Health awareness	8.68
Aids/appliance support	2.41
Referral services	1.35
Promotion of SHG	0.95
Assistance for social activities	0.88
Therapy services	0.82
Training for savings	0.65
Assistance for school	0.57
Promotion in community events	0.57
Support for loans	0.56
Support for job	0.29
Support for marriage	0.22
Legal support	0.19
Educational benefits	0.17
School based awareness	0.17
Promotion of PwD organization	0.17
Celebration days/events	0.15
Support for income activities	0.14
Non-formal education	0.13

sports/cultural events	0.11
Promotion of HR activities	0.09
Support for inclusive education	0.02
Total	**100.00**

Are there any aspects of CBR programme/worker that you don't like?	**%**
Yes	28.42
No	71.58
Total	100.00
Brother	1.64

If yes, which activities or aspects?	**%**
Training for politics	4.85 (17.06)
Aids/appliance support	3.69 (13.00)
Assistance for social activities	2.45 (8.61)
Therapy services	1.84 (6.47)
Support for loans	1.78 (6.28)
Promotion of SHG	1.74 (6.14)
Referral services	1.59 (5.61)
Non-formal education	1.43 (5.02)
sports/cultural events	1.26 (4.44)
Leadership training	0.90 (3.15)
Assistance for school	0.88 (3.10)
Support for marriage	0.82 (2.87)
Promotion in community events	0.78 (2.75)
Support for job	0.73 (2.58)
Promotion of PwD organization	0.65 (2.28)
Home visit	0.62 (2.19)
Support for income activities	0.49 (1.71)
Health awareness	0.36 (1.26)
Training for savings	0.33 (1.16)
Promotion of HR activities	0.32 (1.12)
Celebration days/events	0.32 (1.11)
Legal support	0.24 (0.83)
Support for inclusive education	0.14 (0.49)
School based awareness	0.12 (0.43)
Educational benefits	0.09 (0.33)
Total	**28.42 (100.00)**

4.2 Impact Evaluation through Propensity Score Matching

In this section we present the results of the impact evaluation according to the methodology introduced in section 2.1. The comparison between people participating and not participating in the CBR programme analysed in section 4.1 did not take into account the possible differences that existed between the two groups even before the CBR programme impacted on their lives. In other words, the results presented, although relevant to understanding the characteristics of CBR activities, need to be confirmed through an impact evaluation analysis, since they have not been produced through randomised experiments, where the results in the two groups can be directly compared.

As noted before, since the people compared in section 4.1 are not randomly assigned to the programme[15], they are not likely to be similar to the non-participants. In other words, the straight comparison in section 4.2 may be biased because persons with disabilities joining the programme could be systematically different "before the treatment" from those not participating in the CBR programmes (or living in villages not covered by the programmes). To address this central issue, additional assumptions must be made in order to obtain unbiased estimates of the causal effects of the CBR programmes.

In this section we assume that people joining and not joining the programme can be systematically different, but that we can control for this effect using a set of variables available for both groups. This assumption (namely "unconfoundedness") requires that all variables (covariates) that could influence both outcome and the probability of participating in the CBR be observed.

In our study we collected a rich set of background covariates, so that this assumption (that cannot be tested) can be considered realistic. This means that two persons with disabilities sharing similar values of the background covariates (e.g. same age, same gender, same level of poverty, same disability) can be compared and the differences observed for the variable of interest can be ascribed to a causal effect of the programme.

A key issue is then the trade-off between the richness of the set of covariates (that makes the unconfoundedness assumption more credible) and the difficulty in finding two persons with disabilities sharing exactly the same values of the selected variables. To address this problem Rosenbaum and Rubin (1983) developed the "propensity score" methodology. The propensity score is defined as the probability of a unit (i.e. a person with disabilities) being assigned to a treatment (i.e. being part of the CBR programme). They demonstrated how, under the unconfoundedness assumption, treatment assignment and the potential outcomes are independent, given the propensity score.

[15]The assignment cannot be considered random because in villages reached by the programme, a person with disabilities decides on his own whether to participate or not.

Thus, adjusting for the propensity score helps reduce the bias due to the pre-existing differences between the two groups of persons with disabilities. Since the probability of participating to the programme is unknown, we must model the distribution of the participation (using the observed covariates) in order to estimate a value of the propensity score for each person. The propensity score can then be interpreted as the conditional probability, for a person with disabilities, of joining the programme given his/her vector of observed covariates.

The covariates used for the estimation of the propensity score in the models presented in this section are:

1 - Age

2 - Gender

3 - Household size

4 - Type of disability

5 - Level of disability

6 - Caste

7 - Level of wealth

The outcome variables analysed are related to four (out of the five) CBR matrix components and to the related capabilities:

Health

- Do you have or you have received any mobility aid or an appliance?

Livelihood

- Do you have a job/work for which you earn money?

- Do you receive any pension or allowance?

Social

- Does your family consider your views in taking decisions?

Empowerment and immaterial aspects (e.g. dignity)

- Can you express your views and participate in the community decisions?

The fifth dimension of the CBR matrix is related to the education component. The research question, here, would be the measurement of the impact of joining the programme on the level of education for beneficiaries (Table 35 reports some descriptive results that seem to show that people under the CBR programme have a higher education level). Unfortunately, this aspect of the analysis presented many complications. First of all, the net effect of the programme could only be measured for young people, as adult participants' level of education is hardly affected by a two or four year program. Among young people, another main issue is the variable "age", which must be controlled very strictly: a simple propensity score matching methodology could in fact be misleading, as the impact measured could be significantly biased by the difference between the ages of the two persons matched. In order to avoid this bias, we tried to analyse the data on sub-groups of people of the same age, but we then experienced problems due to the low number of beneficiaries in the samples .

As explained in the introduction in section 2.2, the CBR programme did not have a common starting date for each village. This means that some of the villages covered by the programme

are considered as "control" villages before joining the programme. For example, villages where the programme started in 2002 can be compared, some years later, with villages where the programme started in 2004, 2005 or 2006 (that can still be considered as control villages). The effect of the CBR can then be measured for different durations, and this can be important in order to identify different effects of the programme measured by different outcomes. For example, the net impact for a variable could be higher in the short term before reaching a plateau or decreasing over time. For other outcomes, the impact could be considerable in the long term, especially where the community participation is relevant, but not significant during the first two or three years. A "snapshot" view of the causal effect of the programme could be misleading; an effect measured for at least two instants seems to be more suitable for analyses that aim to explain such heterogenic dimensions.

For these reasons, the results presented here are calculated over two periods of time – after two and four years have elapsed since the programme started in the selected village. Of course, not all persons with disabilities in the same village joined the CBR at the same moment, as some could have decided to postpone their participation. For the tables with descriptive data the results are presented by just tabulating the observed frequencies, while the impact evaluation results are calculated taking into consideration both that some individuals joined the programme some years later and the sample weights.

Table 45 shows the available interviews for both periods. To measure the impact after two years we used villages reached in 2002, while we used villages reached in 2005 and 2006 as a control. Both groups were compared in 2002 (when none of them should experience any effect due to the programme) and 2004 (when the treated group should include effects of two years of programme participation). As for the previous analysis, here and in the rest of the section the term "before" refers to year 2002. The total number of observations is 953 for CBR participants and 184 for the control group of persons with disabilities. For the four-year impact evaluation, we used villages reached in 2002 as treated subjects (i.e. CBR participants) while control people were chosen from both villages covered in 2006 and "full control" villages (i.e. villages a-priori chosen as the counterfactual situation, where the CBR programme has never arrived). For the four-year impact we have a total of 1,438 complete interviews divided into 953 persons with disabilities who joined the programme and 485 who did not.

Table 45: Number of persons with disabilities interviewed according to the year CBR started in the village CBR areas

2 years after CBR	2002	2005	2006	Total
Control	0	92	92	184
CBR	953	0	0	953
Total	**953**	**92**	**92**	**1,137**

[16] In the same dimension training participation has been analysed with a positive and significant impact after 4 years

4 years after CBR	2002	2006	Control	Total
Control	0	92	393	485
CBR	953	0	0	953
Total	**953**	**92**	**393**	**1,438**

Health component

The first effect analysed regards the variable considered as a proxy for the health component and in particular: "Do you have or have you received any mobility aid or an appliance?" which assumes only two possible answers 0 (No) and 1 (Yes). Table 46 shows the results for the variable measured in 2002 (labelled as "before") and 2004 (labelled as "after") the participation to the CBR programme. Here and in the rest of the section we indicate as "CBR" those people with disabilities who joined the programme at the beginning of the period, and "control" those who did not. For the latter, the labels "before" and "after" are irrelevant as they did not join the CBR programme but we keep the same expression for a matter of simplicity. Thus, "control unit before" refers to a person with disabilities who did not participate in any programme and who is answering a question for the time when the treated group started the programme (e.g. 2002). Analogously, "control unit after" refers to a person with disabilities who did not participate in any programme in the analysed period but who is answering a question for the time when we want to measure the effect of the programme on the treated group (i.e. 2004).

It is important to note that for the two-year impact analysis, even the control group is selected from areas that later become part of the CBR area. Thus, in this case, it has been possible to measure the effect taking into consideration the caste, a variable that was not collected for the full control group due to ethical and practical reasons (introducing a bias in the attitude).

Table 46: Share of persons with disabilities with a mobility aid or an appliance before CBR (2002) and after CBR (2004)

Aid before CBR	No	Yes	Total
Control	171	11	182
	93.96	6.04	100.00
CBR	870	76	946
	91.97	8.03	100.00
Total	**1,041**	**87**	**1,128**
	92.29	**7.71**	**100.00**

Aid after CBR	No	Yes	Total
Control	172	12	184
	93.48	6.52	100.00
CBR	859	89	948
	90.61	9.39	100.00
Total	**1,031**	**101**	**1,132**
	91.08	**8.92**	**100.00**

The descriptive analysis reported in Table 46 shows a weak effect on the treated persons with disabilities, who increase their percentage (from 8% to 9.4% with an increase of 1.4 percentage points), while control units do not seem to change significantly (+0.5 percentage points). As stated before, this effect does not take into account the structure of the two groups, which could be extremely different. We then performed a second analysis considering only the wide sub-group of people (more than 90% of the total) who did not have an aid before treatment, and basing the results on the estimation of a propensity score[17] . The result changes noticeably (see Table 47) with the effect increasing to 5.3% and appears to be significant ($p<0.05$). Then, we carried out the analysis dropping the variable "caste" in the model and obtained almost the same result (the result is not significantly influenced by caste, meaning that CBR programmes do not advantage certain castes over others). This result is confirmed by other tests and matching methods and for this reason it is robust. Therefore, being part of CBR is undoubtedly an advantage for persons with disabilities after two years as the significant and positive impact demonstrates.

Table 47: Effect of CBR programme after 2 years (2002-2004) in the case of mobility aid or an appliance

EFFECT estimation with Nearest Neighbour Matching method – Analytical standard errors

N. Treated	N. Controlled	Effect	St. dev	T
636	112	0.053	0.023	2.328

In order to understand if the impact is also positive for longer periods of time, we perform the same analysis, using the same variables, changing the period from two to four years. The treated villages are the same (i.e. those villages in which the CBR programme started in 2002). The control villages are only partly the same as before, because we cannot utilize the 2005 villages (that started the programme 3 years after 2002). We then replace the 2005 villages with the "full control" villages. The "full control" villages are those in which the CBR programme has never arrived, and that were selected in the sample only for purpose of comparison. To sum up, as shown in Table 45, for the four-year impact we have a total of 1,438 complete interviews divided into 953 persons with disabilities who joined the programme and 485 who did not.

[17] We estimated the effect using a nearest neighbour technique that matches every treated unit with a control unit using the value of the estimated propensity score as a measure of the distance between units.

As happened for the two-years analysis, the descriptive statistics reported in Table 48 show a weak effect on the treated people with disabilities, who show a very small increase in the percentage of people possessing an aid (from 8% to 9.2%), while control units do not seem to change significantly (0.5 percentage point). In the propensity score analysis we selected only the large sub-group of people who declared in 2002 not to have any mobility aid or an appliance. As happened for the two-year elaborations, the results change considerably (see Table 49) with the effect increasing to 4.1%. This result is affected by the high standard deviation of the estimate, so that it does not seem significant enough (t-value = 1.052, $p>0.10$). For this reason, we also performed a kernel-based propensity score matching, that confirmed a significant positive effect (4%, $p<0.05$). From these results, it appears that the CBR programme has a positive effect (after four years as well as after two years) reducing the negative impact of impairment and functionings, which increases the well-being of people with disabilities.

Table 48: Share of people with disabilities with a mobility aid or an appliance before CBR (2002) and after CBR (2006)

Aid before CBR	No	Yes	Total
Control	467	11	478
	97.70	3.22	100.00
CBR	870	76	946
	91.97	8.03	100.00
Total	**1,337**	**87**	**1,424**
	93.89	**6.11**	**100.00**

Aid after CBR	No	Yes	Total
Control	377	12	389
	96.92	3.08	100.00
CBR	860	87	947
	90.81	9.19	100.00
Total	**1,237**	**99**	**1,336**
	92.59	**7.41**	**100.00**

Table 49: Share of people with disabilities with a mobility aid or an appliance before CBR (2002) and after CBR (2006)

EFFECT estimation with Nearest Neighbour (NN) and Kernel (Ker) Matching method

Type	N. treated	N. controlled	Effect	St. dev	T
NN	312	291	0.041	0.039	1.052
Ker	312	294	0.040	0.016	2.487

Livelihood component

We analyse here the livelihood component of the CBR Matrix using two variables, one related to employment (job/work) and the other to social protection (pensions and other allowances).

Table 50 refers to work considering the question "Do you have a job/work for which you earn money?" There were three possible answers, but the general distribution of the variable among treated and controls did not seem to differ significantly after two years of programme implementation. We then recoded the variable in order to perform a propensity score analysis that confirmed that the CBR programmes have a small (5%) but significant effect on employment after two years of implementation (Table 51)[18] .

Table 50: Share of people with disabilities with a paid job/work before CBR (2002) and after CBR (2004)

Job before CBR (2002)	Yes	Food/accom. only	No	Total
Control	39	10	108	157
	24.84	6.37	68.79	100.00
CBR	273	81	495	849
	32.16	9.54	58.30	100.00
Total	**312**	**91**	**603**	**1,006**
	31.01	**9.05**	**59.94**	**100.00**

Job after CBR (2004)	Yes	Food/accom. Only	No	Total
Control	44	7	107	158
	27.85	4.43	67.72	100.00
CBR	276	70	502	848
	32.55	8.25	59.20	100.00
Total	**320**	**77**	**609**	**1,006**
	31.81	**7.65**	**60.54**	**100.00**

Table 51: Effect of CBR programme after 2 years (2002-2004) in the case of a paid job/work for those previously unemployed

EFFECT estimation with Nearest Neighbour Matching method (random draw version Analytical standard errors

N. treated	N. controlled	Effect	St. dev	T
262	61	0.05	0.014	3.714

[18]Note that although the data already do not analyse children below 14, we decided to perform the analysis only with persons aged between of 14 and 62 years old in 2002.

Considering the four-year effect on the same variable the results change considerably. Table 52 shows the distribution of the variable with three possible answers ("Yes", "Food and accommodation only" and "No") for years 2002 and 2006. It seems that persons with disabilities in CBR areas performed slightly better in the four-year period, with the answer "Yes" shifting from 32% to 36%, while the control group has a decrease of 3 percentage points, from 27% to 24%. After assigning the variable in order to perform a propensity score analysis (aggregating the answers "Yes" and "Food only") the impact analysis identifies an effect that is even more significant (around 16%). People under the CBR programme found more opportunities to be employed after four years of participating in the programme as reported in section 4.1.

The impact, as reported in Table 53, is very strong - after several years, CBR programmes have a high impact on the opportunity for persons with disabilities to find a job (considering those previously unemployed)[19].

Table 52: Share of people with disabilities with a paid job/work before CBR (2002) and after CBR (2006)

Job before CBR (2002)	Yes	Food/accom. only	No	Total
Control	103	20	263	386
	26.68	5.18	68.13	100.00
CBR	273	81	495	849
	32.16	9.54	58.30	100.00
Total	**376**	**101**	**758**	**1,235**
	30.45	**8.18**	**61.38**	**100.00**

Job after CBR (2006)	Yes	Food/accom. only	No	Total
Control	72	14	220	306
	23.53	4.58	71.90	100.00
CBR	310	61	478	849
	36.51	7.18	56.30	100.00
Total	**382**	**75**	**698**	**1,155**
	33.07	**6.49**	**60.43**	**100.00**

[19]Although the data were already not analysed for children below 14, we decided to perform the analysis only with persons aged between of 22 and 70 years old at the time of the interview. The result remains robust. Also the t is similar without caste (t: 6.407).

Table 53: Effect of CBR programme after 4 years (2002-2006) in the case of a paid job/work for those previously unemployed

EFFECT estimation with Nearest Neighbour Matching method (random draw version)
Analytical standard errors

N. treated	N. controlled	Effect	St. dev	T
112	109	0.164	0.035	4.638

The second variable considered for this component is related to social protection - the possibility of receiving a pension or an allowance. This information was collected with the question: "Do you receive any pension or allowance?" In order to avoid an age-related bias, we only considered people younger than 65 years. As for the other analysis, we first consider the variable from an exploratory perspective, as shown in Table 54, and then we also consider the difference (Table 55) between the two different years .

None of the tables show a significant difference between the two groups. This is also established by the propensity score based analysis that confirms an impact of the CBR programmes very close to zero after two years (Table 55).

Table 54: Share of people with disabilities with a pension or an allowance before CBR (2002) and after CBR (2004)

Before CBR (2002)	No	Yes	Total
Control	76	102	178
	42.70	57.30	100.00
CBR	487	447	934
	52.14	47.86	100.00
Total	**563**	**549**	**1,112**
	50.63	**49.37**	**100.00**
after CBR (2004)	0	1	**Total**
Control	60	121	181
	33.15	66.85	100.00
CBR	377	558	935
	40.32	59.68	100.00
Total	**437**	**679**	**1,116**
	39.16	**60.84**	**100.00**

Table 55: Difference outcome on pension/allowance

Outcome	No	Yes	Total
Control	58	18	76
	76.32	23.68	100.00
CBR	369	116	485
	76.08	23.92	100.00
Total	**427**	**134**	**561**
	76.11	**23.89**	**100.00**

Table 55: Difference outcome on pension/allowance

Outcome	No	Yes	Total
Control	58	18	76
	76.32	23.68	100.00
CBR	369	116	485
	76.08	23.92	100.00
Total	**427**	**134**	**561**
	76.11	**23.89**	**100.00**

Table 56: Effect of CBR programme after 2 years (2002-2004) in the case of pension or allowance for those previously without

EFFECT estimation with Nearest Neighbour Matching method (random draw version) Analytical standard errors

N. treated	N. controlled	Effect	St. dev	T
315	43	0.127	0.132	0.963

The non-significant effect (12.7%, p>0.10) after two years does not mean that CBR programmes do not have an impact over a longer period. For the 4-years analysis, as previously, we first consider the variable from an explorative perspective, as shown in Table 57, and then we consider the difference between the two different years (restricting the elaboration to persons with disabilities who responded that they did not receive any pension during 2002).The descriptive effect among those who joined the CBR programme is huge, with more than 40% of the persons with disabilities without a pension in 2002 having one in 2006 (Table 58). The effect is validated by the propensity score matching that confirms a 40% difference (p<0.001, Table 59). The effect is larger than the one observed for the 2 years impact, highlighting how the CBR programmes have a significant impact that lasts over time.

Table 57: Share of people with disabilities with a pension or an allowance before CBR (2002) and after CBR (2006)

Pension before CBR (2002)	No	Yes	Total
Control	313	150	463
	67.6%	32.4%	100%
CBR	487	447	934
	52.1%	47.7%	100%
Total	**800**	**597**	**1,397**
	57.27	42.73	100.00
Pension after CBR (2006)	**No**	**Yes**	**Total**
Control	244	130	374
	65.24	34.76	100.00

Pension after CBR (2006)	No	Yes	Total
Control	244	130	374
	65.24	34.76	100.00
CBR	286	649	935
	30.59	69.41	100.00
Total	**530**	**779**	**1,309**
	40.49	**59.51**	**100.00**

Table 58: Difference outcome on pension/allowance

Outcome	No	Yes	Total
Control	244	28	272
	89.71	10.29	100.00
CBR	278	208	486
	57.20	42.80	100.00
Total	**522**	**236**	**758**
	68.87	**31.13**	**100.00**

Table 59: Effect of CBR programme after 4 years (2002-2006) in the case of pension or allowance for those previously without

EFFECT estimation with Nearest Neighbour Matching method (random draw version) Analytical standard errors

N. treated	N. controlled	Effect	St. dev	T
316	257	0.406	0.080	5.086

Social component

We tried to measure an impact of the CBR programme on social participation, in particular on the possibility of expressing one's views and the opportunity of having a role in taking decisions within the context of the family. This is a subjective perception of persons with disabilities and very much a capability-oriented dimension related to respect and dignity (Nussbaum, 2000).

Table 60 shows the descriptive results of this variable, divided for CBR and controls. In order to measure an effect, we had to define a (possibly dichotomous) outcome.

We first tried to collapse the possible answers into two macro-categories assuming value 0 for low possibilities ("never" and "sometimes") and 1 for high possibilities ("often" and "always"), but we noticed that this aggregation was too rough, not taking into consideration all the possible improvements (e.g. a person shifting from "often respected" to "always respected"). We then decided to assign a new variable assuming value 1 if a person experiences an improvement in the period considered and 0 otherwise. Since this variable automatically scores 0 if the person is not deprived before the treatment (i.e. those who answered "Always" to the question "Do you feel respected?"), we decided to focus only on those who experience some problems at the beginning of the period (i.e. those who answered "Never", "Sometime" or "Often"). Table 61 shows the

distribution of this new variable both for CBR and the control units - among the 347 people who joined the programme we find 74 people who improved their condition (18.2%), while only 3 persons out of 46 (6.5%) registered the same improvements among those who did not join the CBR. Table 62 shows more explicitly this difference, describing the cross tabulation of the answers given before and after joining CBR by each person with disability. Here we note that some people experience a worsening of their condition, but since this is a very small percentage, we did not take them into consideration.

The propensity score matching estimates a higher result, with an estimated effect around 12% that appears to be significant (Table 63). For this analysis, we decided to drop the "caste" variable from the dataset before adapting the regression models for the estimation of the propensity score, because we do not have enough control units to be compared with the treated units.

Table 60: Share of persons with disabilities respected by the family before CBR (2002) and after CBR (2004)

Before CBR (2002)	Never	Sometime	Often	Always	Total
Control	25	8	13	110	156
	16.03	5.13	8.33	70.51	100.00
Treated	200	78	69	507	854
	23.42	9.13	8.08	59.37	100.00
Total	**225**	**86**	**82**	**617**	**1,010**
	22.28	**8.51**	**8.12**	**61.09**	**100.00**

after CBR (2004)	Never	Sometime	Often	Always	Total
Control	25	6	13	113	157
	15.92	3.82	8.28	71.97	100.00
Treated	173	63	80	537	853
	20.28	7.39	9.38	62.95	100.00
Total	**198**	**69**	**93**	**650**	**1,010**
	19.60	**6.83**	**9.21**	**64.36**	**100.00**

Table 61: Improvements in the perceived respect by the family between 2002 and 2004

	Doesnt Improve	Improves	Total	Always	Total
Control	43	31	46	113	157
	93.48%	6.52%	100.0%	71.97	100.00
CBR	272	74	346	537	853
	78.61%	21.39%	100.0%	62.95	100.00
Total	**315**	**77**	**392**	**650**	**1,010**
	80.35%	**19.65%**	**100.0%**	**64.36**	**100.00**

Table 62: Respect by the family: Cross tabulation 2002/2004 for treated and controls

Control	Never	Sometime	Often	Always	Total
Never	25	0	0	0	25
	100.0%	0.0%	0.0%	0.0%	100.00%
Sometime	0	6	1	1	7
	0.0	75.0%	12.5%	12.5%	100.00%
Often	**0**	**0**	**12**	**1**	**13**
	0.0%	**0.0%**	**92.3%**	**7.7%**	**100.0%**

CBR	Never	Sometime	Often	Always	Total
Never	171	15	6	7	199
	85.9%	7.5%	3.0%	3.6%	100.00%
Sometime	1	48	20	9	78
	1.3%	61.6%	25.6%	11.5%	100.00%
Often	**0**	**0**	**52**	**17**	**69**
	0.0%	**0.0%**	**75.4%**	**24.6%**	**100.00%**

Table 63: Effect of CBR programme after 2 years (2002-2004) respected by the family

EFFECT estimation with Nearest Neighbour Matching method (random draw version) Analyt cal standard errors

N. treated	N. controlled	Effect	St. dev	T
266	38	0.116	0.067	1.728

We also measured the effect of joining the CBR programme on the possibility of expressing one's views and the role of persons with disabilities in taking decisions within the family after four years. We proceed exactly as "respect by the family", assigning a new variable assuming a value 1 if a person experiences an improvement in the period considered and 0 otherwise. Table 64 shows the descriptive results concerning respect within the family for CBR participants and the control group. Table 65 shows the results of the new variable in terms of improvements, while Table 66 is a cross tabulation of the perceived respect in 2002 and 2006.

These descriptive data seem to highlight that the participants to the CBR programmes improve their capacity to express opinions and take decisions, while the situation for the control group does not change significantly.

The propensity score matching confirms this result finding a higher percentage of improvement among those who joined the CBR (around 28%, Table 67). Comparing this result with the one obtained for the effect over 2 years (where the impact on this variable also appears to be significant) demonstrates that the impact of the CBR within a family context seems to be robust through the years. CBR programme participants benefit from better opportunities in family affairs, and after some time they still benefit from a positive impact of the CBR programme.

Table 64: Share of people with disabilities taking decisions within the family before CBR (2002) and after CBR (2006)

Before CBR (2002)	Never	Sometime	Often	Always	Total
Control	59	43	43	238	383
	15.40	11.23	11.23	62.14	100.00
Treated	200	78	69	507	854
	23.42	9.13	8.08	59.37	100.00
Total	**259**	**121**	**112**	**745**	**1.237**
	20.94	**9.78**	**9.05**	**60.23**	**100.00**

After CBR (2006)	Never	Sometime	Often	Always	Total
Control	45	40	41	178	304
	14.80	13.16	13.49	58.55	100.00
Treated	167	50	74	561	852
	19.60	5.87	8.69	65.85	100.00
Total	**212**	**90**	**115**	**739**	**1,156**
	18.34	**7.79**	**9.95**	**63.93**	**100.00**

Table 65: Improvements in taking decisions within the family between 2002 and 2006

	Doesnt Improve	Improves	Total
Control	91	5	96
	94.8%	5.2%	100.0%
CBR	115	56	171
	67.3%	32.7%	100.0%
Total	**206**	**61**	**267**
	77.2%	**22.8%**	**100.0%**

Table 66: Taking decisions within the family: Cross tabulation 2002/2006 for treated and controls

Control	Never	Sometime	Often	Always	Total
Never	35	3	0	0	38
	92.1%	7.9%	0.0%	0.0%	100.00%
Sometime	2	27	1	1	31
	6.5	87.1%	3.2%	3.2%	100.00%
Often	**0**	**0**	**27**	**0**	**27**
	0.0%	**0.0%**	**100.0%**	**0.0%**	**100.0%**

CBR	Never	Sometime	Often	Always	Total
Never	**78**	7	**6**	4	**95**
	82.1%	**7.4%**	**6.3%**	**4.2%**	**100.00%**
Sometime	**0**	**18**	**10**	**12**	**40**
	0.0%	**45.0%**	**25.0%**	**30.0%**	**100.00%**
Often	**0**	**1**	**18**	**17**	**36**
	0.0%	**2.8%**	**50.0%**	**47.2%**	**100.00%**

Table 67: Effect of CBR programme after 4 years (2002-2006) taking decisions within the family

EFFECT estimation with Nearest Neighbour Matching method (random draw version)
Analytical standard errors

N. treated	N. controlled	Effect	St. dev	T
127	92	0.279	0.142	1.966

Note: the numbers of treated and controls refer to actual nearest neighbour matches

Empowerment component

We analyse the question: "Can you express your views and participate in the community decisions?" Table 68 shows the results for years 2002 and 2004.

Again we proceeded by first assigning a new variable assuming value 1 if a person experiences an improvement in the period considered and 0 otherwise. The results are shown in Table 69. It seems that the CBR programme had a positive effect on the possibility to participate in community decisions, as the increase for CBR participants (19.4%) is higher than that of the controls (5.2%). In Table 70 we report the cross tabulation, before-after, calculated by comparing the outcome for the same respondents in years 2002 and 2004. Again, the results seem to confirm that participation in the programme has a positive effect on the possibility to express one's views.

A propensity score analysis (Table 71) validates these conclusions, identifying a significant effect ($p<0.01$) that is even higher than the descriptive results.

Table 68: Share of persons with disabilities participation in the community decisions before CBR (2002) and after CBR (2004)

Before CBR (2002)	Never	Sometime	Often	Always	Total
Control	61	24	30	43	158
	38.61	15.19	18.99	27.22	100.00
Treated	345	108	100	302	855
	40.35	12.63	11.70	35.32	100.00
Total	**406**	**132**	**130**	**345**	**1.013**
	40.08	**13.03**	**12.83**	**34.06**	**100.00**

After CBR (2004)	Never	Sometime	Often	Always	Total
Control	59	25	30	44	158
	37.34	15.82	18.99	27.85	100.00
Treated	293	117	111	332	853
	34.35	13.72	13.01	38.92	100.00
Total	**352**	**142**	**141**	**376**	**1.011**
	34.82	**14.05**	**13.95**	**37.19**	**100.00**

Table 69: Improvements in the perceived participation in the community between 2002 and 2004

	No Improvements	Improvements	Total
Control	109	6	115
	94.8%	5.2%	100.0%
Treated	444	107	551
	80.6%	19.4%	100.0%
Total	**553**	**113**	**666**

Table 70: Participation in the community decisions: Cross tabulation 2002-2004 for treated and controls

Control	Never	Sometime	Often	Always	Total
Never	58	3	0	0	61
	95.1%	4.9%	0.0%	0.0%	100.0%
Sometime	0	22	2	0	24
	0.0	91.7%	8.3%	0.0%	100.0%
Often	1	0	28	1	30
	3.3%	0.0%	93.4%	3.3%	100.0%

CBR	Never	Sometime	Often	Always	Total
Never	291	40	7	6	344
	85.6%	11.6%	2.0%	1.8%	100.0%
Sometime	0	75	26	7	108
	0.0%	69.4%	24.1%	6.5%	100.0%
Often	1	1	76	21	99
	1.0%	1.0%	76.8%	21.2%	100.0%

Table 71: Effect of CBR programme after 2 years (2002-2004) participation in the community decisions

EFFECT estimation with Nearest Neighbour Matching method (random draw version)
Analytical standard errors

N. treated	N. controlled	Effect	St. dev	T
417	81	0.151	0.041	3.722

As per previous CBR Matrix components and outcomes, we carried out the same analysis after four years of participation in the CBR programme.

The descriptive results are reported in Tables 72 and 73. The CBR programme had an effect on the possibility to participate in community decisions, as the increase of the possibility to express one's opinion is higher among CBR participants (31.3%) than controls (3.3%). Table 74 shows the difference observed in the outcome for the same person in year 2006 and 2002. The results obtained confirm the positive impact of the CBR participation on the opportunity to express one's view.

A propensity score analysis (Table 75) validates these conclusions, identifying a significant effect (33.8%, p<.01). The CBR programme seems to have a significant and increasing impact on the opportunity to participate in community decisions and express one's view.

Table 72: Share of persons with disabilities participation in the community decisions before CBR (2002) and after CBR (2006)

Before CBR (2002)	Never	Sometime	Often	Always	Total
Control	184	67	41	92	384
	47.92	17.45	10.68	23.96	100.00
Treated	345	108	100	302	855
	40.35	12.63	11.70	35.32	100.00
Total	**529**	**175**	**141**	**394**	**1,239**
	42.70	**14.12**	**11.38**	**31.80**	**100.00**

After CBR (2004)	Never	Sometime	Often	Always	Total
Control	152	50	38	64	304
	50.00	16.45	12.50	21.05	100.00
Treated	277	108	124	343	852
	32.51	12.68	14.55	40.26	100.00
Total	**429**	**158**	**162**	**407**	**1,156**
	37.11	**13.67**	**14.01**	**35.21**	**100.00**

Table 73: Improvements in the participation in the community between 2002 and 2006

	No Improvements	Improvements	Total
Control	177	6	183
	96.7%	3.3%	100.0%
Treated	182	83	265
	68.7%	31.3%	100.0%
Total	359	89	448

Table 74: Participation in the community decisions: cross tabulation 2002/2006 for CBR and controls

Control	Never	Sometime	Often	Always	Total
Never	106	3	0	0	109
	76.3%	16.9%	3.8%	3.1%	100.0%
Sometime	4	37	2	1	44
	9.1	84.1%	4.6%	2.3%	100.0%
Often	0	0	30	0	30
	0.0%	0.0%	100.0%	0.0%	100.0%

CBR	Never	Sometime	Often	Always	Total
Never	122	27	6	5	160
	76.3%	16.9%	3.8%	3.1%	100.0%
Sometime	1	29	21	6	57
	1.8%	50.9%	36.8%	10.6%	100.0%
Often	3	2	25	18	48
	6.2%	4.2%	52.1%	37.5%	100.0%

Table 75: Effect of CBR programme after 4 years (2002-2006) on the participation in the community decisions

EFFECT estimation with Nearest Neighbour Matching method (random draw version) Analytical standard errors

N. treated	N. controlled	Effect	St. dev	T
196	174	0.338	0.064	5.314

Note: the numbers of treated and controls refer to actual nearest neighbour matches

Our results show that CBR programmes have an overall positive and significant impact on the health, livelihood, social participation and empowerment of participants with disabilities[21] especially after four years of CBR activities. In a CA perspective, this signifies an increase in opportunities for persons with disabilities to conduct the life they value which includes dignity, respect and social participation.

Furthermore, our results confirm other studies showing that CBR impact relies strongly upon community participation and continuity of actions (Alavi and Kuper, 2010).

[21]Although we did not report them due to space constraints, we also analysed other dimensions connected to the CBR matrix and the capability approach. The results of these analyses are consistent with the positive impact of the CBR, especially after four years. Furthermore, preliminary analyses confirm the positive impact of CBR programmes also after 7 years.

Chapter 5.
CBR Coverage

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CBR Coverage

As stated in the objectives, we aimed at understanding the coverage of the CBR programmes. The questions we asked were two: how many persons with disabilities are not involved in CBR activities? And which characteristics do these people have?

Before the survey, according to the two local organizations, MOB and SRMAB, there was no reason to worry about exclusion from CBR programmes, as almost all people with disabilities in need of support were involved in the CBR programmes.

A random subsample of 17 villages was drawn from the 237 selected villages. The criteria chosen for the stratification of the subsample were the same as of the main sample (see section 2.2 for details). As shown in Table 76, this part of the analysis covered two villages in each taluk (one small village and one large village), except for Ramnagaram taluk covering only in one large village.

In order to identify and interview persons with disabilities who were not participating in the CBR programme in each of the 17 villages selected, a community meeting was held and then a complete house-to-house survey was conducted. The WHO nine screening questions on activity limitation and body functioning difficulties (see part 2 section 5 of the main questionnaire) were used to identify persons with disabilities. When a person with disabilities who was not involved in the CBR programme was found in the house-to-house survey, he/she was interviewed (including elderly persons and those with mild disabilities). After being briefed about CBR activities, they were all given control area questionnaires.

In the selected 17 sample villages we had a list of 213 persons with disabilities already registered with the CBR programme - 188 of them completed the interview.

During this survey, an additional 178 persons with disabilities were identified who were not registered with the CBR programmes and all of them were also interviewed. Among these 178 persons with disabilities, there were 21 people who had previously been registered with the CBR programme but had left the programme for some reason. Since these 21 persons can be considered neither treated nor controls, their data have not been considered for the analysis; the data are analysed for the remaining 157 persons.

Thus in the selected 17 sample villages there were in total 391 persons with disabilities (218+178), out of which we have analysed 345 interviews - 188 persons who were registered with CBR programmes and 157 person who were not registered.

This also means that CBR programme reaches to about 57,1% of all the disabled persons (209 188+21 out of 391) in these 17 villages, which have a total population of about 19,000 persons (i.e. around 2% of the population are with disabilities as we expected since the existing data showed that the CBR touched just more than 1% of the population and that the share of persons with disabilities in India and in Mandya district are around 2%).

Table 76: House-to-house pilot survey

Code	Name	Tsize	Msize	Fsize	Date	Tpwd	Mpwd	Fpwd	Area
chen 073	harokkoppa	1795	898	897	30/06/2002	18	12	6	Ramnagar Chennapatna
chen 088	bachahali	695	345	350	30/06/2002	9	7	2	Ramnagar Chennapatna
krpt096	k.laximepura	1673	874	799	30/06/2002	15	9	6	Mandya - KR Pet
krpt139	chikkmadgerekoplu	676	334	342	30/06/2002	7	2	5	Mandya - KR Pet
madd169	nagarakere	2094	1064	1030	30/06/2002	25	10	15	Mandya - Maddur
madd248	sunnadadoddi	562	298	264	30/06/2002	7	4	3	Mandya - Maddur
mala132	saagyasaraguru	1212	618	594	30/06/1997	13	9	4	Mandya - Malavalli
mala152	benamanahalli	628	312	316	30/06/1997	6	5	1	Mandya - Malavalli
mndy234	kiragandur	1631			07/12/1999	27	16	11	Mandya - Mandya
mndy245	kammanayakanahalli	440			16/11/1999	11	6	5	Mandya - Mandya
naga106	bindinganavile	2019			30/06/2005	13	8	5	Mandya - Nagamangala
naga013	bachikoppalu	383			30/06/2005	6	4	2	Mandya - Nagamangala
pand007	baby	1363			19/06/2002	10	4	6	Mandya - Pandavapura
pand097	haralahalli	967			13/05/2002	4	3	1	Mandya - Pandavapura
ramn099	k.g.hosahali	870	438	432	30/06/2002	15	9	6	Ramnagara
srir074	chinnagirikoppalu	1404			28/05/2002	22	14	8	Mandya - Srirangapatna
srir044	hosur	520			28/11/2002	5	3	2	Mandya - Srirangapatna
		18932				**213**			

We then performed some t-tests to investigate possible differences between the 157 persons with disabilities (group A, labelled as "No CBR") who decided not to participate in the programme and the 188 persons with disabilities (group B, labelled as "CBR") who joined the programme in the selected villages. A first test was conducted on the average age of the two groups (Table 77). The average age for group A is around 43 years, while the average for group B is around 33. The test confirms that this difference is highly significant (p<.001). Older people tend not to participate in the CBR programme, perhaps they consider their level of activity limitation as the normal evolution of life.

Table 77: Age differences

Groups	Obs	Mean	Std.Err	Std.Dev	[95%Conf.Interval]
Not in CBR group	157	43.26115	1.73648	21.75804	39.8311 - 46.69119
CBR group	188	33.36702	1.30605	17.90762	30.79054 – 35.9435
combined	345	37.86957	1.09460	20.33121	35.71662 – 40.02251
difference		9.89413	2.13547		5.693853 - 14.0944

Degrees of freedom: 343
Ho: mean(No CBR) - mean(CBR) = diff = 0
Ha: diff > 0
t = 4.6332
P > t = 0.0000

We then tested for the difference between the groups for the variable "gender". As Table 78 shows, there is a higher prevalence of females in both groups. Among those who did not join the programme the percentage of males is around 37%, while it increases to 43% among persons with disabilities participating in CBR. However, the difference of 6% (which means that CBR could be more inclusive from a gender perspective) is not significant, as the t-test does not reject the null hypothesis.

Table 78: Gender difference

Groups	Obs	Mean	Std.Err	Std.Dev	[95%Conf.Interval]
Not in CBR group	157	0.37580	0.03878	0.48588	0.2991999 – 0.4523924
CBR group	188	0.43617	0.03626	0.49723	0.3646302 – 0.5077102
combined	345	0.40870	0.02650	0.49231	0.3565636 – 0.4608277
difference		-0.06037	0.05320		-0.165019 - 0.0442709

Degrees of freedom: 343

Ho: mean(No CBR) - mean(CBR) = diff = 0

Ha: diff < 0

t = -1.1348

P value = 0.1286

The third test was conducted on the difference in the overall level of disability. In order to compare the two groups, we needed a unidimensional value summarizing the level of impairment for each person with disabilities. Using the information on the section regarding "Activity limitation and body functioning difficulties" (section 3.3), we defined a new variable that assumes value one if the person with disability has severe difficulties in at least one activity, and zero otherwise. The result of the t-test is reported in Table 79. As expected by CBR programme coordinators, persons with disabilities who decided to join the programme are more likely to have at least a severe difficulty (approx. 35%), while those who decided not to join are considerably less disabled (only 12% have a severe disability). This difference appears highly significant ($p<0.001$).

Table 79: Level of disability

Groups	Obs	Mean	Std.Err	Std.Dev	[95%Conf.Interval]
Not in CBR group	157	0.12102	0.02611	0.32719	0.0694387 – 0.1725995
CBR group	188	0.34574	0.03478	0.47688	0.2771329 – 0.4143564
Combined	345	0.24348	0.02314	0.42980	0.1979648 – 0.2889918
Difference		-0.22473	0.04493		-0.31309 – -0.1363611

Degrees of freedom: 343

Ho: mean(No CBR) - mean(CBR) = diff = 0

Ha: diff < 0

t = -5.0022

P value = 0.0000

We also investigated the level of affluence of persons with disabilities. We compared three variables that can be considered as proxies of the general level of wealth: the amount of land owned by the family of the persons with disabilities, daily earnings and availability of food.

For land ownership (Table 80) (fourth test) we observed that persons with disabilities belonging to the control group A, possess on average, 60 gunta of land, while those who joined the CBR programme, group B, have around 46 gunta. Although not very large, this difference is still significant ($p<0.05$).

Our results for daily earnings (fifth test) are consistent with those for land ownership, as the average income for people who decided not to join the CBR programme is higher than for the others (Table 81). The difference is even larger, and the t-test is more significant ($p<.01$).

The sixth test examined the quantity of food available to persons with disabilities (Table 82) and confirms the conclusions regarding land owned and daily earnings. In particular, we measured the percentage of persons with disabilities who report that they do not have enough food every day. This percentage is around 33% among those who chose not to participate in the CBR programme and 67% among those who participate. This result, remarkably significant ($p<.001$), is consistent with the others, showing that wealthier people tend not to take advantage of the programme.

Table 80: Land ownership

Groups	Obs	Mean	Std.Err	Std.Dev	[95%Conf.Interval]
Not in CBR group	157	0.37580	0.03878	0.48588	0.2991999 – 0.4523924
CBR group	188	0.66489	0.03452	0.47329	0.5967987 – 0.7329885
Combined	345	0.53333	0.02690	0.49961	0.4804277 – 0.586239
Difference		-0.28910	0.05179		-0.3909682 – -0.1872267

Degrees of freedom: 343

Ho: mean(No CBR) - mean(CBR) = diff = 0

Ha: diff < 0

t = -5.5818

P value = 0.0000

Table 81: Daily earnings

Groups	Obs	Mean	Std.Err	Std.Dev	[95%Conf.Interval]
Not in CBR group	113	60.21239	5.61752	59.71502	49.082 – 71.34278
CBR group	126	46.32540	3.32179	37.28696	39.75117 – 52.89962
Combined	239	52.89121	3.20600	49.56352	46.57546 – 59.20697
Difference		13.88699	6.37150		1.334991 – 26.43899

Degrees of freedom: 237

Ho: mean(No CBR) - mean(CBR) = diff = 0

Ha: diff > 0

t = 2.1795

P value = 0.0151

Table 82: Food access

Groups	Obs	Mean	Std.Err	Std.Dev	[95%Conf.Interval]
Not in CBR group	157	0.37580	0.03878	0.48588	0.2991999 – 0.4523924
CBR group	188	0.66489	0.03452	0.47329	0.5967987 – 0.7329885
Combined	345	0.53333	0.02690	0.49961	0.4804277 – 0.586239
Difference		-0.28910	0.05179		-0.3909682 – -0.1872267

Degrees of freedom: 106

Ho: mean(No CBR) - mean(CBR) = diff = 0

Ha: diff > 0

t = 2.5627

P > t = 0.0059

In section 5, we found that: i) the prevalence of disability of 2% is similar to other sources in India (Census, 2011); ii) the CBR projects and activities programmes involve up to 57.1% of persons with disabilities in CBR areas, which is a remarkable result; iii) the 42.9% of people with disabilities that are not part of the programme present some common characteristics - they are elderly, richer and have a less severe disability. CBR programmes recruit the persons in need although exceptions were found in the house-to-house survey.

Chapter 6.
Effects of CBR Activities on other Stakeholders and at Community Level

Chapter 6.
Effects of CBR Activities on other Stakeholders and at Community Level

In this chapter we analyse the effects (in terms of descriptive statistics) of CBR programmes on other stakeholders. We report the results of questionnaires administered to caregivers, Anganwadi workers, village rehabilitation workers, self-help group representatives, and Gram Panchayat representatives.
The questionnaires used to collect these data were shorter and more limited in scope; they focused only on aspects related to CBR activities. This was done since these stakeholders, although central to the CBR programmes practically and theoretically (see section 1.2), were not the core of the research.

6.1 Caregivers

The caregivers have an important role for the well-being and capabilities of people with disabilities (see section 1.2). They are the persons who take care of (help and support) the persons with disabilities in daily life activities.

The 194 caregivers interviewed in the CBR areas with the "caregiver questionnaire" were chosen on a random sample base (i.e. for every 5 persons with disabilities covered under the survey, one caregiver had to be interviewed).

Table 83 shows that about 20% of persons with disabilities need either a lot or some help and a majority of caregivers are mainly mothers or wives. This is consistent with the result obtained on the PwD questionnaire. 88.6% of respondents are female caregivers (Table 83).

The average age of the respondents is around 40 years old for females and 45 for males. This means that females on average started to take care of a person with disabilities much earlier than male caregivers.

Table 83: Help in ADL and caregiver characteristics

Are there any daily living activities for which you need help from others activities?	Control	CBR	Total
No help needed	57.82	61.27	60.66
Some help	21.33	19.58	19.89
A lot of help	20.85	19.15	19.45
Total	**100.00**	**100.00**	**100.00**

Care Provider	%	Cum. %
Father	3.30	3.30
Mother	57.00	60.30
Sister	1.95	62.25
Brother	1.64	63.88
Grandparents	2.71	66.59
Teacher	0.06	66.65
Friends	0.36	67.02
Husband	2.31	69.32
Wife	20.79	90.11
Son	1.36	91.47
Daughter	2.89	94.36
Other	5.64	100.00

Gender caregiver	Number	%	Cum. %
Male	22	11.34	11.34
Female	172	88.66	100
Total	194	100	

Type of relationship with the person with disability	Number	%	Cum. %
Health worker/medical staff	1	0.52	0.52
Mother	123	63.40	63.92
Father	13	6.70	70.62
Brother	4	2.06	72.68
Sister	6	3.09	75.77
Grandfather	1	0.52	76.29
Grandmother	7	3.61	79.90
Son	2	1.03	80.93
Daughter	6	3.09	84.02
Husband	2	1.03	85.05
Wife	18	9.28	94.33
Other	11	5.67	100.00
Total	**194**	**100.00**	

Age of the caregiver	Obs	Mean	St.Dev.	Min	Max
Age-Male	22	45.18182	16.07908	25	85
Age-Female	172	40.97093	13.38255	15	78

Year when the caring activities started	Number	%	Cum. %
1960	1	0.52	0.52
1968	1	0.52	1.04
1969	2	1.04	2.07
1970	2	1.04	3.11
1972	1	0.52	3.63
1973	1	0.52	4.15
1975	1	0.52	4.66
1976	1	0.52	5.18
1977	1	0.52	5.70
1978	3	1.55	7.25
1979	1	0.52	7.77
1980	3	1.55	9.33
1982	2	1.04	10.36
1983	3	1.55	11.92
1984	4	2.07	13.99
1985	5	2.59	16.58
1986	3	1.55	18.13
1987	4	2.07	20.21
1988	3	1.55	21.76
1989	3	1.55	23.32
1990	11	5.70	29.02
1991	5	2.59	31.61
1992	6	3.11	34.72
1993	4	2.07	36.79
1994	6	3.11	39.90
1995	8	4.15	44.04
1996	7	3.63	47.67
1997	10	5.18	52.85
1998	12	6.22	59.07
1999	15	7.77	66.84
2000	12	6.22	73.06
2001	11	5.70	78.76
2002	10	5.18	83.94
2003	8	4.15	88.08
2004	5	2.59	90.67
2005	7	3.63	94.30
2006	4	2.07	96.37
2007	5	2.59	98.96
2008	1	0.52	99.48
2009	1	0.52	100.00
Total	**193**	**100.00**	

Caregivers were asked their opinion about the severity of the disability of the person they cared for (Table 84) - 36.6% of care recipients have an extremely severe disability. The year in which caregivers become aware of the CBR programme is also reported.

Table 84: Level of disability of the person with disabilities according to caregiver and year caregiver became aware of CBR

Level of disability	Number	%	Cum. %
Mild	4	2.06	2.06
Moderate	43	22.16	24.23
Severe	76	39.18	63.40
Extremely severe	71	36.60	100.00
Total	**194**	**100.00**	

Year Aware of CBR	Number	%	Cum. %
1994	1	0.52	0.52
1997	8	4.15	4.66
1998	9	4.66	9.33
1999	3	1.55	10.88
2000	8	4.15	15.03
2001	17	8.81	23.83
2002	47	24.35	48.19
2003	30	15.54	63.73
2004	7	3.63	67.36
2005	16	8.29	75.65
2006	26	13.47	89.12
2007	5	2.59	91.71
2008	10	5.18	96.89
2009	6	3.11	100.00
Total	**193**	**100.00**	

Nearly 60% of caregivers have attended at least one orientation programme or meeting organized by CBR programmes (Table 85) and almost 100% of the caregivers' families have received a visit from a CBR worker. Each year, on average, a family receives nearly 14 visits. Furthermore, among the caregivers interviewed, 33.5% participated in SHG activities and 8.47% in DPO activities. Involvement in SHGs is at the same level as that of persons with disabilities; as expected participation in DPOs is lower - around 18% for persons with disabilities.

Table 85: Orientation programme and CBR activities participation

Orientation programme attendance	Number	%	Cum. %
Yes	114	58.76	58.76
No	79	40.72	99.48
Don't Know	1	0.52	100.00
Total	**194**	**100.00**	

Home Visit	Number	%	Cum. %
Yes	192	99.48	99.48
No	1	0.52	100.00
Total	193	100.00	

Average Visits per year	Obs	Mean	St.Dev.	Min	Max
How Many Visits	194	13.93	12.2	1	50

Involvement in SHG	Number	%	Cum. %
Yes	65	33.51	33.51
No	129	66.49	100.00
Total	194	100.00	

Involvement in DPO	Number	%	Cum. %
Yes	16	8.47	8.47
No	173	91.53	100.00
Total	189	100.00	

Table 86 shows that the caregiver's workload varies between 1 and 15 hours per day. On average a caregiver spends more than 4 hours per day taking care of the person with disabilities - there is no significant difference (after a t-test) between male and female caregivers. The time spent by non-working caregiver is higher (one hour more) compared to caregivers who have work. This difference is significant (t-test $p<0.01$); about 64% of the caregivers work.

Table 86: Hours of caring per day, by gender, job activities

Hours per day	Number	%	Cum. %
1	5	2.58	2.58
2	29	14.95	17.53
3	42	21.65	39.18
4	41	21.13	60.31
5	22	11.34	71.65
6	22	11.34	82.99
7	3	1.55	84.54
8	20	10.31	94.85
9	1	0.52	95.36
10	6	3.09	98.45
14	1	0.52	98.97
15	2	1.03	100.00
Total	**194**	**100.00**	

Average hours taking care	Obs	Mean	St.Dev.	Min	Max
Male	22	4.318182	2.275885	1	10
Female	172	4.616279	2.497571	1	15

The difference is NOT significant after a t-test

Number of hours	Obs	Mean	St.Dev.	Min	Max
Have a Job	125	4.272	2.18638	1	10
No Job	69	5.144928	2.845406	1	15

The difference is significant after a t-test ($p<0.01$)

Do you have job/work?	Number	%	Cum. %
Yes	125	64.43	64.43
No	69	35.57	100.00
Total	**194**	**100.00**	

A subjective question about the time for personal daily activities highlights that more than 57% of the caregivers feel they lack time (Table 87) for themselves.

According to 37.6% of caregivers the level of disability has been stable (Table 88).

Finally, the CBR programme is appreciated by the caregivers. Overall, 93% affirm that it helped (42.27% that it helped a lot and 50.52% that it was of some help) in taking care of the person with disabilities (Table 89). Only 7.2% felt that it did not help.

Table 87: Time for himself /herself

Enough time	Number	%	Cum. %
Yes	82	42.27	42.27
No, a little	105	54.12	96.39
No time at all	7	3.61	100.00
Total	**194**	**100.00**	

Table 88: Level of disability during the last three years

Disability increase	Number	%	Cum. %
Yes	121	62.37	62,37
Not at all	73	37.63	100.00
Total	**194**	**100.00**	

Table 89: Help of CBR to caregivers to take care of the persons with disabilities

Help CBR	Number	%	Cum. %
Yes, a lot	82	42.27	42.27
Yes,somehow	98	50.52	92.78
No, it did not help	14	7.22	100.00
Total	**194**	**100.00**	

All these results are very important in understanding the impact of CBR as seen by the caregivers. Indeed it seems that CBR is supporting caregivers, visiting their households, involving them in SHG activities and, last but not least, improving their well-being and income. This indirectly benefits persons with disabilities (especially those with severe disabilities) who are dependent on the capabilities of those close to them (external capabilities effect, Biggeri et al. 2011a).

6.2 Anganwadi Workers

In this section we analyse the results of 183 interviews with nursery school teachers (*Anganwadi* workers).

Table 90: Characteristics of *Anganwadi* workers

Anganwadi Worker interviewed	Number	%	Cum. %
Yes	183	79.57	79.57
No	8	3.48	83.04
Yes but not available	38	16.52	99.57
Yes but not willing	1	0.43	100.00
Total	**230**	**100.00**	

Gender	Number	%	Cum. %
Female	183	100.00	100.00
Total	**183**	**100.00**	

Age	Obs	Mean	St.Dev.	Min	Max
Age	183	35.0929	8.569503	19	59

Education Level	Number	%	Cum. %
Class nine	3	1.64	1.64
Class ten	112	61.2	62.84
PUC 1st year	9	4.92	67.76
PUC 2nd Year	52	28.42	96.17
Three years technical course	3	1.64	97.81
Superior/University	4	2.19	100
Total	**183**	**100**	

Disability	Number	%	Cum. %
None	168	91.80	91.80
Physical	9	4.92	96.72
Vision	5	2.73	99.45
Loss of sensation	1	0.55	100.00
Total	**183**	**100.00**	

Do you know the CBR programme?	Number	%	Cum. %
Yes	167	91.26	91.26
No	15	8.20	99.45
Don't Know	1	0.55	100.00
Total	**183**	**100.00**	

Have you attended a training or an orientation session organised by the CBR Programme?	Number	%	Cum. %
Yes	139	75.96	75.96
No	44	24.04	100.00
Total	**183**	**100.00**	

Out of 237 villages selected for the survey, 230 had an Anganwadi (nursery school). Among the 230 Anganwadi, 192 teachers were available for interview and 183 accepted to participate in the interview (Table 90). All the Anganwadi teachers are female, as in the rest of India. The mean age of the teachers is 35 years. Their level of education is significantly higher than the average education level of persons with disabilities in CBR areas, as it is required by their job and some of the teachers are disabled (8%) persons.

The impact of the CBR programme on the Anganwadi teachers seems to be considerable: more than 9 workers out of 10 are aware of the CBR programme, and 3 out of 4 have attended some training or orientation session organized by the CBR programme.

The Anganwadi workers live in the community and have a lot of relevant information regarding children. Indeed, as we have seen in chapter 2, they were key informants in control areas as they keep a list of persons with disabilities in the villages.

The average number of children in an Anganwadi class is 25.3 children and among these the percentage of children with disabilities is around 2.03%, a value that is very close to the overall level of disability estimated in the population (2.07%, see chapter 5).

The two final questions on the acceptation of disability show that children with disabilities and their community seem to be well accepted (in the opinion of the Anganwadi workers). Only one Anganwadi worker thinks that there is a problem with the integration of children with disabilities. Table 90 shows the acceptance in class (although there are many missing answers which is a sign of the interviewer misinterpreting the question or the teachers having some problem in answering). Because Anganwadi teachers work with children from 3 to 5 years of age, their opinion about acceptance of children with disabilities cannot be applied to primary and higher schools, where children face more difficulties.

6.3 Village Rehabilitation Workers

In this third section we analyse the results of a few interviews with 89 village rehabilitation workers met in the villages.

In the 237 villages selected for the survey, there were 228 VRWs. Out of them 96 workers were not available, and 43 refused to be interviewed. Thus only 89 VRWs (38%) participated in the survey (including 2 who had already been interviewed as persons with disability, see Table 91).

As we have written in chapter 2 these workers were quite stressed by the amount of work expected from them and not so willing to be interviewed (see Table 91). Thus the results may be affected by the small sample size. Even so, we report results for the 89 workers who accepted to respond.

The first noticeable feature regards the age and gender of the workers - they seem younger than the average population of persons with disabilities in CBR areas (28.4 years on average) and there is a high occurrence of males (approx. 80%). Another notable fact regards their disabilities - 95% of the respondents say they have a disability, with a high prevalence (70%) of physical impairments. These workers are selected by the village panchayats who give preference to young men with disabilities and some experience of CBR. One VRW is responsible for all the villages that come under that panchayat. The prevalence of men is because village panchayat members feel that men can travel more easily to different villages. Thus, many of the VRWs are ex-CBR workers.

As for the Anganwadi workers, even among VRWs the level of education is considerably higher than the average. All respondents know the CBR programme, some have beneficiated or participated, and most of them were trained through CBR.

Each VRW covers on average nearly 11 villages and approximately 118 persons with disabilities. Among these persons with disabilities, the incidence of holding a disability certificate (approx. 91%) and of the receipt of a pension (approx. 92%) confirms the rate reported in chapter 3 for people participating in the programme (about 76 has a disability certificate and around 83% receive pension).

Each month the VRW covers nearly 9.6 villages and the furthest village is 10 km away. The most common means of transport are local minibus or bus, followed by rickshaw and bicycle and then, walking. Furthermore the data show that 95% of workers feel their opinion is considered by the community.

VRW's satisfaction is high considering the high workload, as pointed out in chapter 2. Approximately 10% of the respondents do not feel satisfied.

Table 91: Characteristics of village rehabilitation workers in the Panchayat

Rate of response	Number	%	Cum. %
Yes	87	38.16	38.16
No	43	18.86	57.02
Yes, but not available	96	42.11	99.12
Already interviewed	2	0.88	100.00
Total	**228**	**100.00**	

	Obs	Mean	St.Dev.	Min	Max
Age	89	28.40449	7.196462	19	46

Gender	Number	%	Cum. %
Male	71	79.78	79.78
Female	18	20.22	100.00
Total	**89**	**100.00**	

Disability	Number	%	Cum. %
No disability	5	5.62	5.62
Physical	63	70.79	76.40
Vision	19	21.35	97.75
Hearing/speech	2	2.25	100.00
Total	**89**	**100.00**	

Education Level	Number	%	Cum. %
Class two	1	1.12	1.12
Class ten	23	25.84	26.97
PUC 1st year	4	4.49	31.46
PUC 2nd Year	50	56.18	87.64
Three years technical course	11	12.36	100.00
Total	**89**	**100.00**	

Do you know the CBR programme?	Number	%	Cum. %
Yes	80	89.89	89.89
Work(ed) with CBR	5	5.62	95.51
Was a beneficiary	4	4.49	100.00
Total	**89**	**100.00**	

Have you attended a training or orientation for village rehabilitation worker?	Number	%	Cum. %
Yes	82	92.13	92.13
No	7	7.87	100.00
Total	**89**	**100.00**	

If yes, who conducted the training?	Number	%	Cum. %
CBR staff	44	53.66	53.66
Government staff	19	23.17	76.83
Other NGO staff	19	23.17	100.00
Total	**82**	**100.00**	

How many villages do you cover?	Obs	Mean	St.Dev.	Min	Max
Villages	89	10.78652	6.094841	1	24

What is the total number of People with disabilities in the villages covered by you?	Obs	Mean	St.Dev.	Min	Max
People with disabilities	89	118.4045	95.40496	52	900

How many disabled persons in these villages have a disability certificate?	Obs	Mean	St.Dev.	Min	Max
Person having a certificate	89	91.57303	88.06169	23	850

How many disabled persons in these village receive a pension or allowance?	Obs	Mean	St.Dev.	Min	Max
Person having an allowance	89	92.13483	51.04948	40	400

How many villages did you cover during the last 30 days?	Obs	Mean	St.Dev.	Min	Max
Variable					
Number villages	89	9.595506	5.620011	1	30

How far from your home is the most distant village covered by you?	Obs	Mean	St.Dev.	Min	Max
Distance	89	9.775281	15.61086	0	115

How do you go to the other villages from your home?	Number	%	Cum. %
	Number	%	Cum. %
Walking	10	11.24	11.24
Bicycle	21	23.60	34.83
Two wheeler	20	22.47	57.30
Tricycle	2	2.25	59.55
Bus/Minibus	35	39.33	98.88
Other	1	1.12	100.00
Total	**89**	**100.00**	

Do you think that your point of view is taken into consideration as a rehabilitation worker, in the community and the Panchayat?	Number	%	Cum. %
Always	78	87.64	87.64
Often	7	7.87	95.51
Rarely	2	2.25	97.75
Never	2	2.25	100.00
Total	**89**	**100.00**	

How satisfied are you with your job as a village rehabilitation worker?	Number	%	Cum. %
Very satisfied	75	84.27	84.27
Rather satisfied	5	5.62	89.89
A little satisfied	8	8.99	98.88
Not satisfied at all	1	1.12	100.00
Total	**89**	**100.00**	

6.4 Self-Help Group Representatives

In this fourth section, we asked some questions to the SHG representatives or, in their absence, to SHG members, if present in the village (see chapter 2, not each village has a SHG). Unfortunately, as happened with the rehabilitation workers, the response rate was quite low (Table 92). Only 53 SHG representatives (from the randomly selected villages), were available for the interview, so that in this sub-section, too, the results could be biased by the small sample size. However, the information collected for this chapter is important since very few studies look systematically at these aspects of CBR programmes. The questionnaires discussed here collected information which is undoubtedly important for understanding and evaluating CBR programmes. For example, SHGs are a very important component of the CBR programmes, especially in India.

Most of the people interviewed were the chairperson of the SHG, or otherwise the treasurer. The average age is 37 years, and there is no particular difference in gender (53% males). As expected, there is a high percentage of persons with disability: 9 SHG representatives out of 10 say they

have some form of impairment. The main type of disability is "visual" (76%). The respondents had been part of the SHG for 3.3 years on average (with a minimum of 1 to a maximum of 10 years).

Each SHG has usually between 6 and 24 members, with an average of 14 people. There is no gender bias among the groups, as the percentage of males and female is the same. The percentage of persons with disabilities among the members of the SHGs is very high, at approximately 95% - the family members are little represented.

According to the SHG representative, the opinions of people with disabilities are usually taken into account in the village (96%); the level of acceptation of persons with disabilities in the community is similar. The SHGs, as already mentioned, organize savings schemes (some data are reported in Table 92). In 73.08% of the villages covered by the programme there are also other non-CBR SHGs - in these villages, an average of approximately 3 CBR SHG members are also members of other SHGs. This confirms a high level of social empowerment.

Table 92: Self Help Group (SHG) characteristics

Is there a CBR/SHG in the village?	Number	%	Cum. %
Yes	53	19.49	19.49
No	99	36.40	55.88
Yes, but not available	120	44.12	100.00
Total	**272**	**100.00**	

What is your position in the CBR/Self Help Group?	Number	%	Cum. %
Chair person/1st Representative	32	60.38	60.38
Treasurer/2nd representative	19	35.85	96.23
Other	2	3.77	100.00
Total	**53**	**100.00**	

Age of respondent	Obs	Mean	St.Dev.	Min	Max
Age	89	37.54717	11.83795	18	70

Gender of respondent	Number	%	Cum. %
Male	28	52.83	52.83
Female	25	47.17	100.00
Total	**53**	**100.00**	

Disability of respondent	Number	%	Cum. %
Yes	47	88.68	88.68
No	6	11.32	100.00
Total	**53**	**100.00**	

Type of Disability	Number	%	Cum. %
Physical	4	8.51	8.51
Vision	36	76.60	85.11
Hearing/speech	1	2.13	87.23
Loss of sensation	4	8.51	95.74
Intellectual/learning	1	2.13	97.87
Other	1	2.13	100.00
Total	**47**	**100.00**	

How many years have you been involved in the Self Help Group?	Obs	Mean	St.Dev.	Min	Max
Number of years	53	3.283019	2.356475	1	10

How many members do you have in your Self Help Group?	Obs	Mean	St.Dev.	Min	Max
Total number	**50**	**14.36**	**3.942236**	**6**	**24**
Only male	50	7.7	4.14655	0	15
Disabled members	53	13.28302	4.916133	0	24
Male disabled members	53	7.830189	3.974611	0	15

Do you think that the point of view of persons with disabilities is taken into consideration in the community decisions?	Number	%	Cum. %
Always	51	96.23	96.23
Oftern	0	0.00	96.23
Rarely	2	3.77	100.00
Never	0	0.00	100.00
Total	**53**	**100.00**	

Do you think that persons with disabilities are accepted/included by the other people in the village?	Number	%	Cum. %
Always	51	96.23	96.23
Often	2	3.77	100.00
Rarely	0	0.00	100.00
Never	0	0.00	100.00
Total	**53**	**100.00**	

What total amount of money has been saved in the Self Help Group?	Obs	Mean	St.Dev.	Min	Max
Average amount	52	21819.15	25630.32	630	100,000

How many people have to pay back the loan that has been granted to them by the Self Help Group?	Obs	Mean	St.Dev.	Min	Max
Average number of people who need to pay back	45	5.066667	4.988168	0	24

Among all the loans granted to members by the Self Help Group, how much still need to be paid back today all together?	Obs	Mean	St.Dev.	Min	Max
Average amount still to be paid	46	19483.67	25664.01	0	110,000

On average how many times a year does the Self Help Group meet?	Obs	Mean	St.Dev.	Min	Max
Average number of meeting per year	51	19.7451	14.28684	8	52

Are there other non-CBR Self Help Groups in the village?	Number	%	Cum. %
Yes	38	73.08	73.08
No	14	26.92	100.00
Total	**52**	**100.00**	**Total**

If yes, how many CBR/ Self Help Groups members are also members of other Self Help Groups	Obs	Mean	St.Dev.	Min	Max
Total number	**31**	**2.903226**	**4.962223**	**0**	**20**
Male number	30	1.266667	2.702915	0	10

6.5 Gram Panchayat Representatives

In every village selected in the sample, we also tried to contact the Gram Panchayat representative. We then obtained 191 complete interviews (approx. 82%) of the villages (Table 93). These are key informants of the community.

As expected, the Gram Panchayat representatives are on average older than the other groups, having an average age of 41 years. The proportion between male and female is balanced, with a slight lead by the men (54%) that does not appear to be significant. There are many females that are presidents of Gram Panchayats.

According to the information from Gram Panchayat presidents or members, on average each village has 15.44 persons with disabilities. This means, by simple calculation, that they include the persons with disabilities who are not part of CBR. They answer that almost all villages have Anganwadi workers (97%) and large part of them a rehabilitation worker (67%). The presence of a primary school is very high (98%), while only half of the villages have a middle school.

Many villages have a support scheme for non-disabled people, the most common are the "100 days rural employment scheme", introduced at the end of 2005 with the NREGA rural act and now very famous in India (Dreze, 2007) and the "Ashraya housing scheme". The money spent for disability-related activities are between 2 and 5% of the total budget of the village but this share varies a lot between the villages.

The perception of the acceptance of the persons with disability is similar to those already reported by the other respondents. According to the opinions of the Gram Panchayat, it appears that persons with disabilities are perceived as accepted by the people surrounding them and that their opinions are taken into account. The share is lower than the one expressed by the SHG and higher than the answer from persons with disabilities (see chapter 3). Only 13 respondents out of 191 admit that persons with disabilities are discriminated against in some sense.

Table 93: Characteristics of *Gram Panchayat* representative interviewed

Agreed to respond	Number	%	Cum. %
Yes, I agree	191	82.33	82.33
No, I Don't Agree	28	12.07	94.40
Not Available	13	5.60	100.00
Total	**232**	**100.00**	

Age	Obs	Mean	St.Dev.	Min	Max
	191	41.1623	10.07132	16	80

Gender	Number	%	Cum.%
Male	103	53.93	53.93
Female	88	46.07	100.00
Total	**191**	**100.00**	

What is your role in the Gram Panchayat?	Number	%	Cum. %	Male(%)	Female(%)
President	42	22.34	22.34	17(16.67)	25(29.07)
Member	146	77.66	100.00	85(83.33)	61(70.93)
Total	**188**	**100.00**		**102**	**86**

How many persons with disabilities are there in the village?	Obs	Mean	St.Dev.	Min	Max
How many	190	15.44737	11.95427	2	60

Are there any anganwadi workers in the village?	Number	%	Cum.%
Yes	185	96.86	96.86
No	6	3.14	100.00
Total	**191**	**100.00**	

Is there a rehabilitation worker in the Panchayat?	Number	%	Cum.%
Yes	128	67.02	67.02
No	61	31.94	98.95
Don't Know	2	1.05	100.00
Total	**191**	**100.00**	

Is there a primary school in the village?	Number	%	Cum.%
Yes	188	98.43	98.43
No	3	1.57	100.00
Total	**191**	**100.00**	

Is there a middle school in the village?	Number	%	Cum.%
Yes	95	50.00	50.00
No	95	50.00	100.00
Total	**190**	**100.00**	

Do you have relevant schemes in the village for NON disabled persons?	Number	%	Cum.%
Yes	172	90.05	90.05
No	19	9.95	100.00
Total	**191**	**100.00**	

If yes, which kind?	Number	%	Cum.%
100 days scheme	107	61.49	61.49
Reserv. For marginalised	9	5.17	66.67
Ashraya housing scheme	**51**	**29.31**	**95.98**
Swarna Jayanti	3	1.72	**97.70**
Bank loans	1	0.57	**98.28**
Srisakthi SHG fund	3	1.72	**100.00**
Total	**174**	**100.00**	

How much funds (in % share) were allocated from the Gram Panchayat total budget for disability related activities?	Number	%	Cum.%
0%	12	6.78	6.78
1%	3	1.69	8.47
2%	13	7.34	15.82
3%	113	63.84	79.66
4%	10	5.65	85.31
5%	16	9.04	94.35
10%	3	1.69	96.05
15%	2	1.13	97.18
20%	3	1.69	98.87
35%	1	0.56	99.44
40%	1	0.56	100.00
Total	**177**	**100.00**	

Do you think that points of view of persons with disabilities are taken into consideration in the community decisions	Number	%	Cum.%
Always	166	86.91	86.91
Often	12	6.28	93.19
Rarely	8	4.19	97.38
Never	5	2.62	100.00
Total	**191**	**100.00**	

Do you think that the persons with disabilities are accepted/included by the people in the village?	Number	%	Cum.%
Always	181	95.26	95.26
Often	4	2.11	97.37
Rarely	1	0.53	97.89
Never	4	2.11	100.00
Total	**190**	**100.00**	

Conclusions

Conclusions

This research examines the results of a CBR evaluation survey carried out in Mandya and in part of Ramanagaram districts of Karnataka State, India. It is the first study of its kind that evaluates the impact of two CBR programmes on persons with disabilities and their communities using an original approach based on a potential outcomes framework.

For these reasons, before summarizing the main empirical results obtained, it is worthwhile to focus on the added-value of this volume from a technical and theoretical point of view.

First of all it can be utilized as a manual for conducting impact evaluation for community based programmes and will form a complete toolkit for CBR evaluation if combined with the other two reports (participatory research with qualitative analysis and emancipatory research).

It is important to highlight that the analysis and the selection of outcome variables is based on a sound theoretical approach which combines the CBR characteristics (as expressed in the CBR matrix) with the CA and human rights approaches. The outcome variables reflect the multidimensionality of well-being and well-becoming.

The empirical results, obtained through a scientifically standardized and rigorous method, underline the relevant achievements of the two CBR programmes in India. Furthermore, when the medium term period is considered, the impact is remarkably high for all dimensions considered in the analysis. These impressive results, after only 4 years of implementation, are in line with the idea of community rehabilitation programmes needing time to produce their effects. In particular, we found that the two CBR programmes have rather a positive impact on the well-being of persons with disabilities in the district in most areas of intervention such as health, livelihood (including opportunity for employment), disability rights and social participation. It is particularly striking to notice that our findings show that participation in CBR has an impact in terms of changing mentalities and fighting prejudice and exclusion. In fact, participation in the programme has a positive effect on the ability to express one's opinion and on the opportunity

to participate in the community's decisions. In particular the results related to access to pensions and to empowerment and participation are higher than the others such as aids and appliances.

The results on the CBR coverage are very relevant since they disentangle the question of inclusion and access to CBR activities. Almost 60% of persons with disability are part of the CBR programme in their area. Furthermore, the persons who are not part of a CBR programme tend to be richer, older and with milder disabilities.

Finally, we found evidence of spillover effects to the community of the CBR programme area both at village level and for single individuals such as caregivers.

This means that CBR programmes are very effective in these two districts in rural India - expanding the capabilities of persons with disabilities, caregivers and the community. Clearly these CBR programmes are very important but to be successful they need to complement rather than substitute the government actions. Moreover, CBR can enforce important synergies in the communities through social empowerment, fostering new opportunities and lobbying for the rights of persons with disabilities.

At the end of this work some new questions emerge that are beyond the scope of our current study: Which conditions are necessary to make a CBR successful? Can CBR be successful in other countries? These two questions could be the starting point of further research.

The capacity to implement a person-centred and bottom-up approach combined with the strong commitment and support of the different local partners and the long term commitment of the international partners has been the right combination for the success of the two programmes in a very cost effective manner.

Although not exactly replicable in other contexts in India, and even less in other countries, these two programmes indicate a clear path to follow.

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Annexes

S-PARK/CBR MANDYA DISTRICT STUDY
Consent form – Researcher copy

Name, Work Address and Contact Details of the Field manager	Jayanth Kumar, Amici office 4th Cross, Kavery Layout, Tavarekere Main Road, Bangalore - 560 029 Tel: 25531264 Fax: 25520630 mail : aifo@aifoindia.org
Data Collector code	|__|__|

We would like to invite you to participate in this study by answering a few questions. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information.

Details of Study:

This study is part of CBR programme in Mandya district carried out by SRMAB (Sri Ramana Maharishi Academy for Blind) and MOB (Maria Olivia Bonaldo). This study is coordinated by AIFO and aims to understand how persons with disabilities and their families benefit from the different project activities and how these activities can be made stronger.

There is no direct benefit for you for answering these questions, but your answers will help us to improve the project activities and to better address the needs of the persons with disabilities in the community. Your answers are confidential and will not be shared with any other people. The records of this study will be private. Only the people who are doing the study will be able to look at the answers that you give to the questions.

You have the right not to be in the study or to stop at any time. If you do not understand a question, please ask me to explain it to you. You are free to stop at any time during the interview. If you do not wish to answer any question, you can do that. It is important to say that there are no right or wrong answers for these questions, just tell us what you think or feel.

It is up to you to decide whether to take part or not. If you decide to take part you are still free to withdraw at any time and without giving a reason. If you do not wish to participate, it will not have any negative effects on your participation in CBR activities. Do you have any questions before we start?

Participant's Statement

I _____ (name)

- have read/been explained the notes written above and understand what the study involves.
- understand that if I decide at any time that I no longer wish to take part in this project, I can notify the researchers involved and withdraw immediately.
- consent to the processing of my personal information for the purposes of this research study.
- I agree that my non-personal research data may be used by others for future research. I am assured that the confidentiality of my personal data will be upheld through the removal of identifiers.
- understand that such information will be treated as strictly confidential.
- agree that the research project named above has been explained to me to my satisfaction and I agree to take part in this study.

Signature / LTI of the person with disability (Or) Signature / LTI of the Parents/Guardian	Date:

S-PARK/CBR - Data Collector Comment Form

Comments of the person who did data collection

_____

_____

Comments of the supervisor

Question number	Remarks/corrections to be made	Correction made
		YES/NO
		YES/NO
		YES/NO
		YES/NO
		YES/NO
		YES/NO
		YES/NO
		YES/NO
		YES/NO
		YES/NO
		YES/NO
		YES/NO
		YES/NO
		YES/NO
		YES/NO
		YES/NO

S-PARK/CBR MANDYA DISTRICT STUDY
Consent form – Researcher copy

Name, Work Address and Contact Details of the Field manager	Jayanth Kumar, Amici office 4th Cross, Kavery Layout, Tavarekere Main Road, Bangalore - 560 029 Tel: 25531264 Fax: 25520630 mail : aifo@aifoindia.org
Data Collector code	|__|__|

We would like to invite you to participate in this study by answering a few questions. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information.

Details of Study:

This study is part of CBR programme in Mandya district carried out by SRMAB (Sri Ramana Maharishi Academy for Blind) and MOB (Maria Olivia Bonaldo). This study is coordinated by AIFO and aims to understand how persons with disabilities and their families benefit from the different project activities and how these activities can be made stronger.

There is no direct benefit for you for answering these questions, but your answers will help us to improve the project activities and to better address the needs of the persons with disabilities in the community. Your answers are confidential and will not be shared with any other people. The records of this study will be private. Only the people who are doing the study will be able to look at the answers that you give to the questions.

You have the right not to be in the study or to stop at any time. If you do not understand a question, please ask me to explain it to you. You are free to stop at any time during the interview. If you do not wish to answer any question, you can do that. It is important to say that there are no right or wrong answers for these questions, just tell us what you think or feel.

It is up to you to decide whether to take part or not. If you decide to take part you are still free to withdraw at any time and without giving a reason. If you do not wish to participate, it will not have any negative effects on your participation in CBR activities. Do you have any questions before we start?

Participant's Statement

I _____ (name)

- have read/been explained the notes written above and understand what the study involves.
- understand that if I decide at any time that I no longer wish to take part in this project, I can notify the researchers involved and withdraw immediately.
- consent to the processing of my personal information for the purposes of this research study.
- I agree that my non-personal research data may be used by others for future research. I am assured that the confidentiality of my personal data will be upheld through the removal of identifiers.
- understand that such information will be treated as strictly confidential.
- agree that the research project named above has been explained to me to my satisfaction and I agree to take part in this study.

Signature / LTI of the person with disability (Or) Signature / LTI of the Parents/Guardian	Date:

S-PARK/CBR MANDYA DISTRICT
Questionnaire for Persons with Disabilities in the CBR Project Areas

Sample code number |__|__|__|__|__|__|__|__|__|__|__|

Year CBR officially started in the village: |__|__|__|__|

Interview date	|__|__|/|__|__|/|__|__|__|__| (Day/month/Year)
Interview Place	**1**. Inside home **2.**In another building such as anganwadi, temple, community center, etc. **3.**Outside in open |__|
Code Main Data Enumerator	|__|__|
Other Persons present during interview (3 possible answers)	**1.** Other data enumerator **2.** Supervisor **3**. Care giver **4**.Other family member **5.** Alone **6** Other, specify_____ 1.|__|2.|__|3.|__|

Family Information

1	2	3	4	5
Link with (Person With Disability)	Age	Sex	Job/Work (Ask above 8 years old)	Education Level.
|**1**|	|__|	|__|	|__|	|__|
|__|	|__|	|__|	|__|	|__|
|__|	|__|	|__|	|__|	|__|
|__|	|__|	|__|	|__|	|__|
|__|	|__|	|__|	|__|	|__|
|__|	|__|	|__|	|__|	|__|
|__|	|__|	|__|	|__|	|__|
|__|	|__|	|__|	|__|	|__|

Code for Column 1: Link with person with disability.
1 Disabled person **2** Mother **3** Father **4** Brother
5 Sister **6** Grandmother **7** Grandfather **8** Son
9 Daughter **10** Husband **11** Wife **12** Friend **13** Other, specify _____

Code for Column 2: Specify the age in complete years

Code for Column 3: 1.Male 2.Female

Code for Column 4: Job/Work
1 Yes **2** No **88** Don't know **99** No answer

Code for Column 5: Education Level.

0. No education, **1.**class one, **2.**class two, **3.**class three, **4.**Class four, **5.**class five, **6.**Class six, **7.**Class seven, **8.**Class eight, **9.**Class nine, **10.**Class ten, **11.** PUC 1st year / One year technical course **12.** PUC 2nd Year / Two years technical course. **13.** Three years technical course **14.**Superior education/ University education **88.**Dont know **99.**No answer.

PART 1

For each question, write the number of the correct option in the box placed in the right hand column or under the question. Do not put any tick marks or cross on the options. For all questions: if you do not ask the question because the question is not relevant, then do not write any answer. For all questions where no options are given, use the following options: 1 Yes, 2 No, 88 if you ask the question but person says that he/she does not know, and 99 if you ask the question but the person does not answer.

1. Personal information about person with disability:	
Note: Except for small children & persons with severe communication difficulty, this part of questionnaire must be answered by disabled person himself/herself. (1.1) First Name _____ (1.2) Family name _____ (1.3) Age in years 88 Don't know 99 No answer (1.4) Gender 1.Male 2 Female	 |__|__| years |___|
2. Disabled Person & CBR Programme	
(2.1) Year CBR officially started in the village (Please refer to the first page): **(2.2)In which year did you join any CBR activity for the first time** ? **If the year of joining CBR** is not the same as year of starting of CBR in that village then ask: **(2.3) Why didn't you join the CBR activities earlier?** (Can give multiple answers) 1 Thought it is not a good programme 2 Didn't know about CBR 3 Thought it is not useful 4 I was afraid they will not accept me 5 I was not in the village 6 pain or not feeling well 7 I faced transport/accessibility difficulty 8 There are persons of other castes 9 There are persons with other disabilities 10 At the time I was not disabled / I was not born, 11. CBR staff didn't accept me 12.Other, please specify _____ 88 Don't know 99 No answer	|__|__||__|__| |__|__|__|__| 1. |___| 2. |___| 3. |___|
(2.4) Did you ever stop participation in CBR activities for 1 or more years at any time? (Note: it has to be 1 year of interruption minimum. If less than 1 year, code 2=no) 1 Yes 2 No 88 Don't know 99 No answer (2.4.1) If yes, why? (Can give multiple answers) 1 I had personal/family problem 2 I had problem with peers in CBR 3 I had problem with other persons 4 I was away from village/I was living elsewhere 5 I had pain or I was not feeling well 6 I had transportation/accessibility difficulty 7 I faced problem with CBR staff 8 Other, please specify _____ 88 Don't know 99 No answer	|___| 1. |___| 2. |___| 3. |___|

3. Who is the main respondent in above part of the questionnaire? (Only one answer is possible)

1. Disabled person 2. Mother 3. Father 4. Brother
5. Sister 6. Grandmother 7. Grandfather 8. Son
9. Daughter 10. Husband 11. Wife 12. Friend
13. Other, specify _____ |___|

3.1 Gender of main respondent: 1. M 2. F |___|

3.2 Additional information also given by: (Can give multiple answers, but these have to be different from the main respondent in question 3. above)

1. Disabled person 2. Mother 3. Father 4. Brother
5. Sister 6. Grandmother 7. Grandfather 8. Son
9. Daughter 10. Husband 11. Wife 12. Friend
13. Other, specify _____

1. |____|
2. |____|
3. |____|

4. Family Wealth & Income

Note: These questions may be asked to a family member if needed.

(4.1) In what kind of house do you live?

1. Hut 2. Brick with sheet roof 3. Brick with tile roof |____|
4. Moulded 5. Other, please specify _____

(4.2) Does your family own the house or it is rented?

1 Owner 2 Rented 3 Other, specify_____ |____|

(4.3) Does your family own any land?

1 Yes 2 No 88 Don't know 99 No answer |____|

(4.3.1) If yes, how many gunta? (Note: specify in gunta or in acres and translate into gunta in the right box in the right column. 1 acre=40 guntas)

|___|Acres |___|Gunta |____|Gunta

(4.4) What is your main source of drinking water ?

1. Tap / Tank /Pump water 2. Well water 3.Pond / River |___|
4. Sterilized containers 5. Other, specify _____
88 Don't know 99 No answer

4.4.1 How many meters away from your household is the drinking water source? (in approximate meters) |_____| meters

(4.5) Do you have a toilet in your house?

1 Yes 2 No 88 Don't know 99 No answer |___|

(4.6) Do you have enough resources for food?

1 Yes 2 No 3.Sometimes 88 Don't know 99 No answer |___|

(4.7) Do you have any of the following vehicles in the family?

S.No	Vehicle	How many
1	Bicycle	|__|__|
2	Cart	|__|__|
3	Scooter	|__|__|
4	Tractor	|__|__|
5	Car	|__|__|
6	Other specify_____	|__|__|

(4.8) Does your family has any of the following

S.No	Items	How many
1	Radio	|__|__|
2	Television	|__|__|
3	Cassette Player	|__|__|
4	Walkman	|__|__|
5	VCR/DVD Player	|__|__|
6	Telephone /Cell phone	|__|__|

(4.9) Has your family taken any loans or has any debts?

1 Yes 2 No 88 Don't know 99 No answer |__|__|

(4.9.1) If yes, how much loan or debt in rupees remaining?

|_____|
Rupees

PART 2

Each of the following questions of sections 5 and 6 concerns some activities in different disability dimensions. For each activity we ask about the situation at the time of conducting the interview. All questions of parts 5 and 6 must be asked to the disabled person himself/herself. In case of minors (below 10 years) and persons with severe communication difficulties, the interviewer can include the parents /care givers.
Please note that in section 6 as specified some questions are for children/persons above a specific age other only for children below a specific age.

Section 5
Activity limitation and body functioning difficulties

5. Activity limitation and body functioning difficulties (each question to be asked to each person with disability, irrespective of his or her disability)	**Response** Read all options and ask the respondent to choose one option. Show the Muddhe scale and explain it.	Fill the box
5.1 Do you have any difficulty in seeing? (Can't see at all, can see little, can't see in evening or at night?)	**1** I have **no** difficulty seeing **2** I have **some** difficulty seeing **3**. I have **a lot of** difficulty seeing **4** I **cannot** see at all	|__|
5.2 Do you have any difficulty in hearing? (Can't hear properly or can not hear at all)	**1** I have **no** difficulty hearing **2** I have **some** difficulty hearing **3**. I have **a lot of** difficulty hearing **4** I **cannot** hear at all	|__|
5.3 Do you have any difficulty in speaking? (Can't speak at all, speaks little or speaks with difficulty, stammers, difficult to understand?)	**1** I have **no** difficulty speaking **2** I have **some** difficulty speaking **3**. I have **a lot of** difficulty speaking **4** I **cannot** speak at all	|__|
5.4 Do you have any difficulty moving any part of your body? (Any part paralysed, any part amputated, any part stiff and painful, can't stand or sit or walk? Can not coordinate movements or hold things?)	**1** I have **no** difficulty moving any part of my body **2** I have **some** difficulty moving any part of my body **3**. I have **a lot of** difficulty moving any part of my body **4** I **cannot** move any part of my body at all	|__|
5.5 Do you have no/less feelings in hands or feet? (Can touch hot things or fire and gets burned? Has wounds without pain on hands or feet?)	**1** I have **no** difficulty feelings in hands or feet **2** I have **some** difficulty feelings in hands or feet **3**. I have **a lot of** difficulty feelings in hands or feet **4** I **cannot** feel in hands or feet at all	|__|

5.6 Do you ever get any strange behaviour or feelings? (Gets sad or crying without reason, hears voice, feels people are trying to kill him/her? Sees unexisting things? Speaks meaningless things?)	**1** I have **no** strange behaviour or feelings **2** I have **some** strange behaviour or feelings **3**. I have **a lot of** strange behaviour or feelings **4** I have **always** strange behaviour or feelings	|__|
5.7 Do you ever have any fits? (Falls down and body has convulsion? Gets unconscious? Suddenly for a short time can not hear or answer?)	**1** I **never** had fits or body convulsion **2** I have **sometime** fits or body convulsion (1 in 6 months) **3**. I have **often** fits or body convulsion (2 to 6 per 6 months, up to 1 a month) **4** I have **always** fits or body convulsion (every week or more)	|__|
5.8 Do you have any difficulty in learning? (Difficulty in understanding or communicating or explaining or reading or writing?)	**1** I have **no** difficulty in learning **2** I have **some** difficulty in learning **3**. I have **a lot of** difficulty in learning **4** I **cannot** learn at all	|__|
5.9 Do you have any other disability? (Including burns, scars, pock marks, albinism, vitiligo, etc. that the person perceives as a disability?)	**1** I have **not** any other kind of disability **2** I have **some** kind of other disability **3**. I have **many** other disabilities	|__|

Section 6

Q PART 2_Disabled_Persons_CBR_Area

(Disability dimensions assessment)

Note : Each of the following questions of section 6 concerns some activities in different disability dimensions. For each activity we ask about the situation at the time of conducting the interview. All questions of part 6 must be asked to the disabled person himself/herself. In case of minors (below 8 years) and persons with severe communication difficulties, the interviewer can include the parents /care givers.

6. Disability dimensions assessment	Read all answer. Use the Muddhe scale in 3 or 4 choices	Fill the box
6.1 Are you able to eat on your own? (Not for children below 3 yrs)	**1** I can eat on my own **2** I can eat with help **3** I cannot eat on my own at all	|__|
6.2 Are you able to bath on your own? (Including washing, bathing & cleaning teeth - Not for children below 5 yrs)	**1** I can bath on my own **2** I can bath with help **3** I cannot bath on my own at all	|__|
6.3 Are you able to use the latrine on your own? (Not for children below 3 yrs)	**1** I can use latrine on my own **2** I can use latrine with help **3** I cannot use latrine on my own at all	|__|
6.4 Are you able to dress and undress on your own? (Not for children below 5 yrs)	**1** I can dress on my own **2** I can dress with help **3** I cannot dress on my own at all	|__|
6.5. Did the CBR help you to learn to eat, to bath, to use latrine and to dress?	**1** Yes it helped me a lot to learn those activities **2** Yes it helped me somehow to learn those activities **3** No it did not help me to learn those activities at all **4** CBR had a negative role in those activities. **77** Not applicable	|___|
6.6 Are you able to speak? (Not for children below 3 yrs)	**1** I can speak easily **2** I have some difficulty to speak **3** I cannot speak at all	|___|
6.7 Are you able to understand simple instructions? (Not for children below 3 yrs)	**1** I can understand simple instruction easily **2** I have some difficulty to understand simple instruction **3** I cannot understand simple instruction	|___|

6.8 Are you able to express your needs? (Not for children below 3 yrs)	**1** I can express my needs easily **2** I have some difficulty to express my needs **3** I cannot express my needs	|___|
6.9 Are you able to understand movements and signs for communication (only for persons with speech / hearing disability and not for children below 5 yrs)	**1** I can understand movements and signs for communication easily **2** I have some difficulty to understand movements and signs for communication **3** I cannot understand movements and signs for communication	|___|
6.10 Are you able to lip read? (only for persons with speech / hearing disability and not for children below 8 yrs)	**1** I can lip read easily **2** I have some difficulty to lip read **3** I cannot understand lip read	|___|
6.11 Did the CBR help you to learn to speak, to understand simple instructions, to express your needs, to use sign language, and/or to lip read?	**1.** Yes it helped me a lot to learn those activities 2. Yes it helped me somehow to learn those activities **3.** No it did not help me to learn those activities at all **4.** CBR had a negative role in those activities. **77**.Not applicable	|___|
6.12 Are you able to sit? (Including sitting up from lying down. Not for children below 2 years)	**1** I can sit on my own **2** I can sit with help **3** I cannot sit on my own at all	|___|
6.13 Are you able to stand? (Including from sitting to standing. Not for children below 3 years)	**1** I can stand on my own **2** I can stand with help **3** I cannot stand on my own at all	|___|
6.14 Are you able to move inside the home? (Including walking, crouching, crawling or using trolley - Not for children below 3 years)	**1** I can move inside the home on my own **2** I can move inside the home with help **3** I cannot move inside the home on my own at all	|___|
6.15 Are you able to move outside the house? (Including walking, crouching, crawling or using trolley - not for children below 5 years)	**1** I can move outside the home on my own **2** I can move outside the home with help **3** I cannot move outside the home on my own at all	|___|
6.16 Are you able to walk at least ten steps? (Not for children below 3 years)	**1** I can walk on my own **2** I can walk with help **3** I cannot walk on my own at all	|___|
6.17 Do you have aches and pains in the back or the joints?	**1** I have never or rarely aches and pains **2** I have sometimes aches and pains **3** I have often aches and pains **4** I have always/all the time aches and pains	|___|
6.18 Did the CBR help you to learn to sit, to stand, to move inside the house, to move outside the house, walk and / or to relieve the pain?	**1.** Yes it helped me a lot to learn those activities **2.** Yes it helped me somehow to learn those activities **3.** No it did not help me to learn those activities at all **4.** CBR had a negative role in those activities. **77.** Not applicable	|___|
6.19 Are you able to participate in family discussion and decision making? (Not for children below 5 years)	**1** I can participate in family discussion and decision without difficulty **2** I can participate in family discussion and decision with difficulty **3** I cannot participate in family discussion and decision at all	|___|
6.20 Are you able to join in community activities? (Not for children below 8 years)	**1** I can join in community activities on my own **2** I can join in community activities if someone comes with me **3** I cannot join in community activities at all	|___|

6.21 Are you able to do household activities ? (Not for children below 8 years)	**1** I can do household activities on my own **2** I can do household activities with help **3** I cannot do household activities on my own at all	|___|
6.22 Do you have a job? (Not for persons below 14 years)	**1** I have a fulltime job **2** I have a part time or seasonal job **3** I have no job	|___|
6.23 Did the CBR help you to learn to participate in family discussion and decision, community activities, house hold activities and / or to find a job?	**1.** Yes it helped me a lot to learn those activities 2. Yes it helped me somehow lot to learn those activities **3.** No it did not help me to learn those activities at all **4.** CBR had a negative role in those activities. **77.** Not applicable	|___|
6.24 Do you go to school? (for children between 6 to 14 years)	**1** Yes, I am going to school and I do normal school work **2** Yes, I am going to school but I do school work below my age **3** No, I am not going to school	|___|
6.25 Are you able to read? (Not for children below 5 yrs) Please make the respondent read the following: *This morning, I am happy.* If s/he can read then circle 1 if s/he could read with no difficulty or 2 if s/he had difficulty.	**1** Yes I can read **2** Yes, I can read slowly or with difficulty **3** No, I cannot read	|___|
6.26 Are you able to count? (Not for children below 5 yrs) Please make the respondent count from *1 to 10* If s/he can count then circle 1 if s/he could count with no difficulty or 2 if s/he had difficulty.	**1** Yes I can count **2** Yes, I can count a little or with difficulty **3** No, I cannot count	|___|
6.27 Are you able to write? (Not for children below 5 yrs) Please make the respondent write the following: *This morning, I am happy.* _____ If s/he can write then fill the box with 1 if s/he could write with no difficulty or 2 if s/he had difficulty.	**1** Yes I can write **2** Yes, I can write slowly or with difficulty **3** No, I cannot write	|___|
6.27 Did the CBR help you to learn to go to school, to read, count and / or to write?	**1.** Yes it helped me a lot to learn those activities 2. Yes it helped me somehow lot to learn those activities **3.** No it did not help me to learn those activities at all **4.** CBR had a negative role in those activities. **77.** Not applicable	|___|
6.28 Is your child breast fed like other children? (for small children below 1 yr)	**1** Yes **2** No	|___|
6.29 Are you (your child) able to play like other children of your (his/her) age? (For children below 14 yrs)	**1** Yes, play like children my (his/her) age **2** No, play like children below my(his / her) age **3** No, do not play at all	|___|
6.30 Did the CBR help you to learn to breastfeed, and / or to help your child to play like others?	**1.** Yes it helped me a lot to learn those activities 2. Yes it helped me somehow lot to learn those activities **3.** No it did not help me to learn those activities at all **4.** CBR had a negative role in those activities. **77.** Not applicable	|___|

6.31 Are there any daily living activities for which you need help from others? (Note: It does not matter if the person requires help for one activity or many activity, little help or lot of help - for all these cases)	**1** Yes, there are some other activities for which I need some help **2** Yes, there are some other activities for which I need a lot of help **3** No, there are no other activities for which I need help	|___|
6.32 If yes, who provides this care? (can give several answers, fill the boxes)	**1** Father **2** Mother **3** Sister **4** Brother **5** Grandparent **6** Teacher **7** Friends **8** Husband **9** wife **10** son **11** Daughter **12** Other, specify_____	1. |___| 2. |___| 3. |___|

7. Who is the main respondent in above part of the questionnaire? (Only one answer)

1 Disabled person **2** Mother **3** Father **4** Brother **5** Sister **6** Grandmother **7** Grandfather **8** Son **9** Daughter **10** Husband **11** Wife **12** Friend **13** Other, specify _____	|___|
7.1 Gender of main respondent: 1 Male 2 Female	|___|
7.2 Additional information also given by: (Can give multiple answers. Respondents must be different from Q.7 above) **1** Disabled person **2** Mother **3** Father **4** Brother **5** Sister **6** Grandmother **7** Grandfather **8** Son **9** Daughter **10** Husband **11** Wife **12** Friend **13** Other, specify _____	1.|___| 2.|___| 3.|___|

PART 3

Participation Scale

Note: This part of the questionnaire is *only for persons above 14 years and must be answered by persons with disabilities themselves*. In case of persons with severe communication difficulties, the interviewer can include the parents /care givers. If a question is not relevant to a disabled person do not fill the box with any answer for that question

Tell the persons to think about the situation now, at the time of answering the questionnaire and not in the past and to think of other persons coming from their same age group, gender and social background in the same village/community/city to compare with their own situation

No.	8.Participation Scale	Read out all answers and fill the box with the one chosen.		Intensity of the problem	Read out all answers and fill the box with the one chosen. Show the Muddhe scale in 4 choices	
8.01	**Do you have equal opportunity as your peers to find work?**	**1.** Yes, I have equal opportunity as my peers to find work **2.** No, I have not equal opportunity as my peers to find work **3.** Some times, I have equal opportunity as my peers to find work **88.** Don't know **99.** No answer	|__|	**8.01.1 How big a problem is it for you to find a job?**	**1.** Finding a job is not a problem **2.** Finding a job is a small problem **3.** Finding a job is a medium problem **4.** Finding a job is a large problem	|__|
8.02	**Do you work as hard as your peers do?**	**1.** Yes, I work as hard as my peers do **2.** No, I do not work as hard as my peers do **3.** Sometimes, I work as hard as my peers do **88.** Don't know **99.** No answer	|__|	**8.02.1 How big a problem is it for you to work as hard as your peers?**	**1.** Working as hard as my peers is not a problem **2.** Working as hard as my peers is a small problem **3.** Working as hard as my peers is a medium problem **4.** Working as hard as my peers is a large problem	|__|
8.03	**Do you contribute economically to the household in ways similar to your peers?**	**1.** Yes, I contribute economically to the household as my peers do **2.** No, I do not contribute economically to the household as my peers do **3.** Sometimes, I contribute economically to the household as my peers do **88.** Don't know **99.** No answer	|__|	**8.03. How big a problem is it for you to contribute economically to the household as much as your peers do?**	**1.** Contributing economically to the household is not a problem **2.** Contributing economically to the household is a small problem **3.** Contributing economically to the household is a medium problem **4.** Contributing economically to the household is a large problem	|__|
8.04	**Do you make visits outside your village or neighbourhood, as much as your peers do?** (Ex. Markets, baazars)	**1.** Yes, I make visits outside my village as much as my peers **2.** No, I do not make visits outside my village as much as my peers **3.** Some times, I make visits outside my village as much as my peers **88.** Don't know **99.** No answer	|__|	**8.04.1 How big a problem is it for you to make visits outside your village or neighbourhood?**	**1.** Making visits outside my village or neighbourhood is not a problem **2.**Making visits outside my village or neighbourhood is a small problem **3.**Making visits outside my village or neighbourhood is a medium problem **4.**Making visits outside my village or neighbourhood is a large problem	|__|

8.05	**Do you take part in festivals and rituals as your peers do?** (Ex. In weddings, funerals, religious festivals)	**1.** Yes, I take part in festivals and rituals as my peers do **2.** No, I do not take part in festivals and rituals as my peers do **3.** Some times, I take part in festivals and rituals as my peers do **88.** Don't know **99.** No answer	|__|	**8.05.1 How big a problem is it for you to take part in festival and ritual?**	**1.** Taking part in festival and ritual is not a problem **2.**Taking part in festival and ritual is a small problem **3.**Taking part in festival and ritual is a medium problem **4.** Taking part in festival and ritual is a large problem	|__|
8.06	**Do you take part in casual social or recreational activities as your peers do?** (Ex. Sports, chat, meeting)	**1.** Yes, I take part in casual social or recreational activities as my peers do **2.** No, I do not take part in casual social or recreational activities as my peers do **3.** Some times, I take part in casual social or recreational activities as my peers do **88.** Don't know **99.** No answer	|__|	**8.06.1 How big a problem is it for you to take part in casual social or recreation**al **activities ?**	**1.** Taking part in casual social or recreational activities is not a problem **2.**Taking part in casual social or recreational activities is a small problem **3.**Taking part in casual social or recreational activities is a medium problem **4.** Taking part in casual social or recreational activities is a large problem	|__|
8.07	**Are you as socially active as your peers are?** (Ex. In religious, community affairs)	**1.** Yes, I am as socially active as my peers are **2.** No, I am not as socially active as my peers are **3.** Some times, I am as socially active as my peers are **88.** Don't know **99.** No answer	|__|	**8.07.1 How big a problem is it for you to be as socially active as your peers are?**	**1.** To be as socially active as my peers is not a problem **2.** To be as socially active as my peers is a small problem **3.** To be as socially active as my peers is a medium problem **4.** To be as socially active as my peers is a large problem	|__|
8.08	**Do you receive the same respect in your community as your peers do?**	**1.** Yes, I receive the same respect in my community as my peers do **2.** No, I do not receive the same respect in my community as my peers do **3.** Some times, I receive the same respect in my community as my peers do **88.** Don't know **99.** No answer	|__|	**8.08.How big a problem is it for you to receive the same respect in the community as your peers do?**	**1.** To receive the same respect as my peers is not a problem **2.** To receive the same respect as my peers is a small problem **3.** To receive the same respect as my peers is a medium problem **4.** To receive the same respect as my peers is a large problem	|__|
8.09	**Do you have the same opportunity to take care of your appearance as your peers do?** (Ex. Appearance, nutrition, health)	**1.** Yes, I have the same opportunity to take care of my appearance as my peers do **2.** No, I have the same opportunity to take care of my appearance as my peers do **3.** Some times, I have the same opportunity to take care of my appearance as my peers do **88.** Don't know **99.** No answer	|__|	**8.09.1** **How big a problem is it for you to take care of your appearance as your peers do?**	**1.** To take care of my appearance is not a problem **2.** To take care of my appearance is a small problem **3.** To take care of my appearance is a medium problem **4.** To take care of my appearance is a large problem	|__|
8.10	**Do you visit other people in the community as often as your peers do?**	**1.** Yes, I visit other people in the community as often as my peers do **2.** No, I do not visit other people in the community as often as my peers do **3.** Some times, I visit other people in the community as often as my peers do **88.** Don't know **99.** No answer	|__|	**8.10.1 How big a problem is it for you to visit other people in the community as often as your peers do?**	**1.** To visit other people is not a problem **2.** To visit other people is a small problem **3.** To visit other people is a medium problem **4.** To visit other people is a large problem	|__|

8.11	**Do you move around inside & outside the village or neighbourhood just as your peers do?**	**1.** Yes, I move around & outside the village or neighbourhood just as my peers do **2.** No, I do not move around & outside the village or neighbourhood just as my peers do **3.** Some times, I move around & outside the village or neighbourhood just as my peers do **88.** Don't know **99.** No answer	|__|	**8.11.1 How big a problem is it for you to move around & outside the village or neighbourhood as your peers do?**	**1.** To move around & outside the village or neighbourhood is not a problem **2** To move around & outside the village or neighbourhood is a small problem **3.** To move around & outside the village or neighbourhood is a medium problem **4.** To move around & outside the village or neighbourhood is a large problem	|__|
8.12	**In your village/neighbour-hood do you visit all public or common places as your peers do?** (ex. School, shops, offices, market, tea or coffee shops)	**1.** Yes, I visit all public or common places as my peers do **2.** No, I do not visit all public or common places as my peers do **3.** Some times, I visit all public or common places as my peers do **88.** Don't know **99.** No answer	|__|	**8.12.1 How big a problem is it for you to visit all public or common places as your peers do?**	**1.** To visit common places is not a problem **2** To visit common places is a small problem **3.** To visit common places is a medium problem **4.** To visit common places is a large problem	|__|
8.13	**In your home do you do housework as your peers do?**	**1.** Yes, I do housework in my home **2.** No, I do not do housework in my home **3.** Some times, I do housework in my home **88.** Don't know **99.** No answer	|__|	**8.13.1 How big a problem is it for you to do housework in your home?**	**1.** To do housework is not a problem **2** To visit common places is a small problem **3.** To do housework is a medium problem **4.** To do housework is a large problem	|__|
8.14	**In family discussions does your opinion count as much as anyone else's?**	**1.** Yes, my opinion counts as much as anyone else's **2.** No, my opinion does not count as much as anyone else's **3.** Some times, my opinion counts as much as anyone else's **88.** Don't know **99.** No answer	|__|	**8.14.1 How big a problem is it for you to have your opinion considered in the family discussion?**	**1.** To have my opinion considered is not a problem **2** To have my opinion considered is a small problem **3.** To have my opinion considered is a medium problem **4.** To have my opinion considered is a large problem	|__|
8.15	**In your home are the eating utensils you use kept with those used by other persons?**	**1.** Yes, my utensil are kept with those used by other persons **2.** No, my utensil are not kept with those used by other persons **3.** Some times, my utensil are kept with those used by other persons **88.** Don't know **99.** No answer	|__|	**8.15.1 How big a problem is it for you to have your utensils kept in the same place with those of other persons?**	**1.** To have my utensils kept with others is not a problem **2** To have my utensils kept with others is a small problem **3.** To have my utensils kept with others is a medium problem **4.** To have my utensils kept with others is a large problem	|__|
8.16	**Do you help other people as much as your peers do?** (ex. Neighbours, friends, relatives)	**1.** Yes, I help other people **2.** No, I do not help other people **3.** Some times, I help other people **88.** Don't know **99.** No answer	|__|	**8.16.1 How big a problem is it for you to help other people?**	**1.** To help others is not a problem **2** To help others is a small problem **3.** To help others is a medium problem **4.** To help others is a large problem	|__|

PART 4

In the present section of the questionnaire, you have to ask information about the situation in past periods - "Now" means generally "year 2009" In some cases it means 'In the last month" as specified in the question box. Before means "Just before the CBR started in the village" for certain villages information will be collected only for "before" and "now" for some other villages it will be collected for three periods and for some villages it will be for all four periods.

This information will be given before entering in each village.
The relevant years will be defined in advance by the monitor of the survey and specific important events for the area recalled.
The year/years not relevant will be deleted.

All question of part 4 must be taken to the disabled person himself / herself. In case of minor (Below 10 years) and person with severe communication difficulties, The interviewer can include the parents /care givers.

The questionnaire asks information about some specific time periods – now (at the time of interview), 2002, 2004, 2006 and just before joining CBR programme.

9. Health Component

(9.1) Did the child get Triple vaccine (DPT - Diptheria, Pertusis & Tetanus) injections during his/her first year of life?
(Note: This question is only for children below 10 years, ask the family member and fill box)
1 Yes 2 No 88 Don't know 99 No answer |___|

(9.1.1) If yes, how many times? |___|

(9.2) Have you ever visited a specialist for check-up or special treatment or surgery?
(Note: fill the boxes below) 1 Yes 2 No 88 Don't know 99 No answer

Now / 2009	2006	2004	2002	Before CBR Started
a.|____|	b.|____|	c.|____|	d.|____|	e.|____|

(9.3) Do you have to take any medicines regularly?
(Note: fill the boxes below) 1 Yes 2 No 88 Don't know 99 No answer

Now / 2009	Before CBR Started
a.|____|	e.|____|

(9.3.1) If yes (Now), Is receiving medicines a problem for you? (fill the box below)

1 Yes 2 No 88 Don't know 99 No answer |___|

1	2	3
Period	**(9.4). Do you have or you have received any mobility aid or an appliance?** (fill the box below) 1 Yes 2 No 88 Don't know 99 No answer	**(9.4.1) If yes, which kind of appliance:** (Check the list of aids/appliances given below and write kind of aid received multiple answers are possible)
Now / 2009	a.|___| If 2.no →go below	a. 1.|__|, 2.|__|, 3.|__|
2006	b.|___| If 2 No→go to next below	b. 1.|__|, 2.|__|, 3.|__|
2004	c.|___| If 2 No→go to next below	c. 1.|__|, 2.|__|, 3.|__|
2002	d.|___| If 2 No→go to next below	d. 1.|__|, 2.|__|, 3.|__|
Before CBR Started	e.|___| If 2 No→go to next question	e. 1.|__|, 2.|__|, 3.|__|

(9.3.2) If yes(Now), how big a problem is it for you? (read the statements to the respondent, use the Muddhe scale, and fill the box below with the answer chosen)

1-No problem 2-small 3-Medium 4-large 88 Don't know 99 No answer |___|

(9.4). Do you have or you have received any mobility aid or an appliance?

Code for Column 3: Different aid/appliances
1 Crutches **2** Wheel chair **3** Eye glasses **4** White cane **5** Hearing aid **6** Tricycle **7** Artificial limb **8** Footwear **9** Callipers **10** Adaptation chair **11** Water bed
12 Other, specify_____

10. Education & Training component (only above 5 yrs)

(10.1) Which is your level of education? (fill the box) **|___|**
(Note: no education go to section 11)

Code for education level:
0. education, **1.**class one, **2.**class two, **3.**class three, **4.**Class to four, **5.**class five, **6.**Class six, **7.**Class seven, **8.**Class eight, **9.**Class nine, **10.**Class ten, **11.** PUC 1st year / One year technical course **12.** PUC 2nd Year / Two years technical course. **13.** Three years technical course **14.**Superior education/ University education **88.**Dont know **99.**No answer.

(10.1.1) How many years in total did you go to school/college, etc.
Write in the box the number, 88 Don't know 99 No answer **|___|**

(10.1.2) Did you ever receive a Government scholarship or allowance? (fill the box)

1 Yes 2 No 88 Don't know 99 No answer **|___|**

1	2	3
Period	**(10.2) Are you going to or have you ever been to school, university or did you received any kind of education?** (fill the boxes below) 1 Yes 2 No 88 Don't know 99 No answer	**(10.2.1) If yes, which kind educational institutions:** (Check the list of educational institutions given below and write the kind of aid received two answers are possible)
Now / 2009	a.|__| If 2.No → Go to next below	a. 1.|__|, 2.|__|, 3.|__|
2006	b.|__| If 2.No → Go to next below	b. 1.|__|, 2.|__|, 3.|__|
2004	c.|__| If 2.No → Go to next below	c. 1.|__|, 2.|__|, 3.|__|
2002	d.|__| If 2.No → Go to next below	d. 1.|__|, 2.|__|, 3.|__|
Before	e.|__| If 2.No → Go to next question	e. 1.|__|, 2.|__|, 3.|__|

Code for Column 3: Different kind of institution/schools
1 Regular school 2 Special school 3 Tech. Institute 4 College
5 Adult education 6 Other, specify_____

11. Vocational & Income generation component (>14 yrs)

(11.1) Did you ever participate in a job training or skills training course or apprenticeship?
(Note: fill the boxes below) 1 Yes 2 No 88 Don't know 99 No answer

Now / 2009	2006	2004	2002	Before CBR Started
a.|____|	**b.|____|**	**c.|____|**	**d.|____|**	**e.|____|**

1	2	3
Period	**(11.2) Do you have a job/work for which you earn money?** 1 Yes 2. Yes, But I get only food/ accommodation 3. No 88 Don't know 99 No answer	**(11.2.1) If yes, which kind of work/job?** (Check the list of kind of job/work given below two answers are possible)
Now back up to one month	a.|___| If 3. No → Go to next below,	a. 1.|__|, 2.|__|
2006	b.|___| If 3.No → Go to next below,	b. 1.|__|, 2.|__|
2004	c. |___| If 3.No → Go to next below,	c. 1.|__|, 2.|__|
2002	d. |___| If 3.No → Go to next below,	d. 1.|__|, 2.|__|
Before	e. |___| If 3.No → Go to next question,	e. 1.|__|, 2.|__|

Code for Column 3: Kind of work/job
1 Shop or business 2 Government service 3. private service 4. Agriculture or animal rearing 5. Daily labour 6. Other, specify _____

(11.2.2) On average how many hours per day you work?
(including work at home, family work, agricultural work, etc., even if formally not working)
|_____|Hours

(11.2.3) In you work, on average how much do you earn per day?
|_____|Rs

(11.2.4) Is food and / or accommodation included?
1 Yes 2 No 88 Don't know 99 No answer **|__|**

(11.3) Are you a member of a Self-help group?
(Note: fill the boxes below)
1 Yes →go to 11.3.1
2 No → go to 11.4
88 Don't know 99 No answer **|____|**

(11.3.1) If you are a member, how many rupees have you saved so far in SHG?
|_____| **Rs**

(11.3.2) If you are a member, Have you ever been given a responsible role in the self-help group?
1 Yes 2 No 88 Don't know 99 No answer **|__|**

(11.4) Do you receive any pension or allowance? (for all person with disability above 6 years)
(Note: fill the boxes below) 1 Yes 2 No 88 Don't know 99 No answer

Now / 2009	2006	2004	2002	Before CBR Started
a.|____|	b.|____|	c.|____|	d.|____|	e.|____|

1	2	3
Period	**(11.5) Do you receive/benefit of any loan/scheme?** 1 Yes 2 No 88 Don't know 99 No answer	**(11.5.1) If yes, from whom?** (Check the list of different sources of loans given below multiple answers are possible)
Now / 2009	a.|__| If 2.No →Go to next below	a. 1.|__|, 2.|__|, 3.|__|
2006	b.|__| If 2.No →Go to next below	b. 1.|__|, 2.|__|, 3.|__|
2004	c.|__| If 2.No →Go to next below	c. 1.|__|, 2.|__|, 3.|__|
2002	d.|__| If 2.No →Go to next below	d. 1.|__|, 2.|__|, 3.|__|
Before CBR Started	e.|__| If 2.No →Go to next below	e. 1.|__|, 2.|__|, 3.|__|

Code for Column 3: sources of loans
1 Govt. scheme 2 Bank loan 3 Sarva Shiksha Abhiyan 4 CBR/SHG
5 Stri Shakthi SHG 6 DPO 7. Money lender 8 Other, specify_____

12. Social component (Only for persons above 8 years)

(12.1) Do you have any close friends outside the family?
(Note: fill the boxes below) 1 Yes 2 No 88 Don't know 99 No answer

Now back up to one month	2006	2004	2002	Before CBR Started
a.|____|	b.|____|	c.|____|	d.|____|	e.|____|

(12.2) Are you married?
(Note: Only for persons above 14 yrs; only one answer)
1 married, first marriage → Go to 12.2.1 2 Never married 3 separated 4 divorced 5 widow/widower 6 remarried (More than one marriage) → Go to 12.2.1

Now / 2009	2006	2004	2002	Before CBR Started
a.|____|	b.|____|	c.|____|	d.|____|	e.|____|

(12.2.1) If yes, is your husband/wife a person with disability?
1 Yes 2 No 88 Don't know 99 No answer |__|

(12.3) Do you participate in the community activities like sports, festivals, religious functions, drama, dance, etc.?
(Note: fill the boxes below) 1 Yes 2 No 88 Don't know 99 No answer

Now / 2009	2006	2004	2002	Before CBR Started
a.|____|	b.|____|	c.|____|	d.|____|	e.|____|

13. Empowerment (Only for persons above 18 yrs)

(13.1) Are you a member of a DPO?
(Note: fill the boxes below)
1 Yes→ Go to 13.1.1 2 No→ Go to 13.2 88 Don't know 99 No answer |__|

(13.1.1) If yes, have you ever held a responsible position in the DPO?
(Note: fill the box below) 1 Yes 2 No 88 Don't know 99 No answer |__|

(Please note:- 13.2, 13.2.1, 13.2.2, 13.2.3, 13.2.4, must be asked for all the person with disability)

(13.2) Have you received the disability certificate? (Note: fill the box below)
1 Yes→ Go to 13.2.1 2 No→ Go to 13.2.2 88 Don't know 99 No answer |___|

(13.2.1) If yes, in which year did you receive the disability certificate? (Note: fill the box):
|__||__||__||__|

(13.2.2) Have you received the disability Identity card? (Note: fill the box below)
1 Yes→ Go to 13.2.3 2 No→ Go to 13.3 88 Don't know 99 No answer |__|

13.2.3) If yes, in which year did you receive the disability Identity card? (Note: fill the box):
|__||__||__||__|

(13.2.4) If yes, do you also have a bus or a train pass for disabled persons?
(Note: fill the box)
1 Yes 2 No 88 Don't know 99 No answer |__|__|

(13.3) Do you participate in Gram Sabha's (in rural areas) or Ward committee meetings (semi-urban or urban areas)? (Note: fill the box)
1 Yes→ Go to 13.3.1 2 No→ Go to 14.1 88 Don't know 99 No answer |__|

(13.3.1) If yes, for how many years have you been participating in these meetings?
|_____|

14. Additional Subjective questions (Only for persons above 14 years)

(14.2) Do you usually feel respected in your own community?

(Note: read the statements to the respondent, show the Muddhe scale in 4 choices, and fill the boxes below with the answer chosen)

1-No I never feel respected
2- Yes, sometimes I feel respected
3-Yes, I often feel respected
4-Yes I always feel respected

Now / 2009	2006	2004	2002	Before CBR Started
a.|____|	b.|____|	c.|____|	d.|____|	e.|____|

(14.3) Can you express your views and participate in the community decisions?

(Note: read the statements to the respondent, show the Muddhe scale in 4 choices, and fill the boxes below with the answer chosen)

1-No I can **never** express my views
2- Yes, I **sometimes** can express my views
3-Yes, I can **often** express my views
4-Yes I can **always** express my views

Now / 2009	2006	2004	2002	Before CBR Started
a.|____|	b.|____|	c.|____|	d.|____|	e.|____|

(14.4) Does your family consider your views in taking decisions?

(Note: read the statements to the respondent, show the Muddhe scale in 4 choices, and fill the boxes below with the answer chosen)

1-No my family **never** consider my views
2- Yes, my family **sometimes** consider my views
3-Yes, my family **often** consider my views
4-Yes my family **always** consider my views

Now / 2009	2006	2004	2002	Before CBR Started
a.|____|	b.|____|	c.|____|	d.|____|	e.|____|

(14.5) Are you able to keep yourself clean and tidy?

(Note: read the statements to the respondent, show the Muddhe scale in 4 choices, and fill the boxes below with the answer chosen)

1-No I can **never** keep myself clean and neat
2- Yes, I can **sometimes** keep myself clean and neat
3-Yes, I can **often** keep myself clean and neat
4-Yes I can **always** keep myself clean and neat

Now / 2009	2006	2004	2002	Before CBR Started
a.|____|	b.|____|	c.|____|	d.|____|	e.|____|

(14.6) Can you spend leisure time with your friends?

(Note: read the statements to the respondent, show the Muddhe scale in 4 choices, and fill the boxes below with the answer chosen)

1-No I can never spend times with my friends
2- Yes, I can sometimes spend times with my friends
3-Yes, I can often spend times with my friends
4-Yes I can always spend times with my friends

Now / 2009	2006	2004	2002	Before CBR Started
a.|____|	b.|____|	c.|____|	d.|____|	e.|____|

(14.7) How satisfied are you with your life in general?
(Note: read the statements to the respondent, show the Muddhe scale in 4 choices, and fill the boxes below with the answer chosen)
1-I am **not at all** satisfied with my life
2-I am only a **little** satisfied with my life
3-I am **rather** satisfied with my life
4-I am **completely** satisfied with my life

Now / 2009	2006	2004	2002	Before CBR Started
a.|____|	b.|____|	c.|____|	d.|____|	e.|____|

(14.8) How satisfied are you with your health in general?
(Note: read the statements to the respondent, show the Muddhe scale in 4 choices, and fill the boxes below with the answer chosen)
1-I am **not at all** satisfied with my health
2-I am only **a little** satisfied with my health
3-I am **rather** satisfied with my health
4-I am **completely** satisfied with my health

Now / 2009	2006	2004	2002	Before CBR Started
a.|____|	b.|____|	c.|____|	d.|____|	e.|____|

(14.9)
Shanti is a 30 years old woman with disability. Her family owns a house and a small land. When she goes out, most people of the village don't like to talk to her. Her sister's family occasionally help her to meet her livelihood needs (food, clothes…). When a decision must be taken, her family generally doesn't take into consideration her point of view. She has a friend, a 33 years old woman living in the same neighbourhood, with whom she uses to talk about her problems.
How satisfied with this situation do you think Shanti is? (Note: read the statements to the respondent, show the Muddhe scale in 4 choices, and fill the boxes below with the answer chosen)

1- She is not at all satisfied with her situation **|____|**
2- She is only a little satisfied with her situation
3- She is rather satisfied with her situation
4- She is completely satisfied with her situation

15. Overall appreciation of CBR programme and CBR worker

15.1 Are there any activities of CBR programme that you like? (Note: Fill the box)

1 Yes 2 No 88 Don't know 99 No answer |____|

15.2 If yes in what ways; please specify,

1. Home visit,
2. Health awareness programme and camps.
3. Therapy services /Mobility and orientation training
4. Referral services /Medicine / Surgery.
5. Aids and appliance support.
6. Assistance for school admission and referral for special schools.
7. Assistance for scholarship /SSA / Educational benefits.
8. Non-formal education
9. Conducting in school based awareness programme and teacher training
10. Support for Inclusive education in middle school and higher school.
11. Organize the sports/cultural/recreational events.
12. Celebrartion of important days/events
13. Orientation on legislation and legal support
14. Support for marriage for PWD and family support
15. Promotion participation in community events like culture / religious activities
16. Assistanc for social security schemes and travel concessions
17. Support for self employments /Loans
18. Support for promotion of vocational training and income generation activities
19. Support for job placement and wage employment
20. Training for savings and credit management
21. Promotion of Self help group activities
22. promotion of Disabled people organization /federation
23. Leadership training and group training activity
24. Training for political participation
25. Promotion of human rights activities and advocacy

1. |___|
2. |___|
3. |___|
4. |___|
5. |___|

Thank you very much for your participation

Annex 2

Training Schedule

Date	Content	Methodologies	Facilitators
22/11/2009	Arrival, introduction and logistical arrangements	Discussions	Jayanth Kumar, Ramesh Gariyappa, Parthipan Ramasami
23/11/2009	SPARK introduction, Organisational introduction and background, Disability concepts (meaning, causes, preventative measures, different disabilities), CBR background and concepts,	Lecture, presentation and discussions,	Jayanth, Ramesh and Parthipan Ramasami
24/11/2009	Overall training introduction, total questionnaires, consent form, equality concepts	Presentation, games, discussions (learning by doing)	JF Trani and Parul Bakhshi
25/11/2009	Disability and inequality, inclusion and exclusion concepts, persons with severe impairements, behaviors and attitude, disability and practical problems, CBR metrics	Group discussions, interactions, presentation, social games, group work	JF Trani, Parul, Ramesh Gariyappa and Jayanth Kumar
26/11/2009	Gender, children with disabilities, qualities of enumerator, overall questionnaires, part one of the main questionnaire	Presentation, demonstrations, group work, discussions, games, interactions, brainstorming	Parthipan Ramasami, JF Trani, Parul Bakhshi and Jayanth Kumar
27/11/2009	Mental health, Intellectual disabilities, mental illness, interview methods, part two and part three of the main questionnaire	Demonstrations, individual exercises, group discussions, brainstorming, presentations, questions and answers	Parul Bakhshi, JF Trani, Parthipan Ramasami, Mario Biggeri
28/11/2009	Mental disabilities, Recollection, testing of questionnaires in TRDC and revision of part 1-2-3- of the main questionnaires	Discussions, presentations, group work, individual sharing, practical exercises, questions and answers	Parul, JF Trani, Parthipan Ramasami and Jayanth Kumar
29/11/2009	Week programme review, corrections, cultural evening	Storytelling, Songs (individual and group), games, dramas, role plays, mime shows and other recreations	JF Trani, Jayanth Kumar, Parthipan Ramasami, Srinivas Gowda, Ramesh Gariyappa, and Ramaiya
30/11/2009	Part 2 section six and part four of the main questionnaire, community questionnaires (AW, VRW, PM, SHG AND CG) testing of part 1-2-3- of the main questionnaire in TRDC	Presentations, discussions, brainstorming, group work, questions and answers,	Mario Biggeri, Paolo Battistelli, Parthipan Ramasami and JF Trani
1/12/2009	Testing of part 1-2-3- of the main questionnaire in TRDC and corrections	Practical exercises, discussions and presentation	Parthipan, Jayanth, Ramesh, Paolo, Mario Biggeriand JF Trani
2/12/2009	Testing of all the questionnaires in the villages (main and community)	Practical exercises, revision and discussions	JF Trani, Mario Biggeri, Parthipan Ramasami, Ramesh Gariyappa, Jayanth Kumar, Paolo Battistelli, Deveraj, Basavaraj
3/12/2009	Disabilities caused by leprosy, epilepsy/fits, planning, feedback, conclusion and departure	Individual sharing, group discussions, social games, songs, thanks giving and travel	JF Trani, Jayanth Kumar, Parthipan Ramasami, Ramesh Gariyappa and Deveraj

Annex 3

Scientifi Advisory Group

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Annex 4
AIFO ETHICAL GUIDELINES FOR RESEARCH

Honesty

Strive for honesty in all scientific communications. Honestly report data, results, methods and procedures, and publication status. Do not fabricate, falsify, or misrepresent data. Do not deceive colleagues, granting organisations, or the public.

Objectivity

Strive to avoid bias in experimental design, data analysis, data interpretation, peer review, personnel decisions, grant writing, expert testimony, and other aspects of research where objectivity is expected or required. Avoid or minimize bias or self-deception. Disclose personal or financial interests that may affect research.

Integrity

Keep your promises and agreements; act with sincerity; strive for consistency of thought and action.

Carefulness

Avoid careless errors and negligence; carefully and critically examine your own work and the work of your peers. Keep good records of research activities, such as data collection, research design, and correspondence with agencies or journals.

Openness

Share data, results, ideas, tools, resources. Be open to criticism and new ideas.

Respect for Intellectual Property

Honour patents, copyrights, and other forms of intellectual property. Do not use unpublished data, methods, or results without permission. Give credit where credit is due. Give proper acknowledgement or credit for all contributions to research. Never plagiarize.

Confidentiality

Protect confidential communications, such as papers or grants submitted for publication, personnel records, and patient records.

Responsible Publication

Publish in order to advance research and scholarship, not to advance just your own career. Avoid wasteful and duplicative publication.

Responsible Mentoring

Help to educate, mentor, and advise students. Promote their welfare and allow them to make their own decisions.

Respect for colleagues

Respect your colleagues and treat them fairly.

Social Responsibility

Strive to promote social good and prevent or mitigate social harms through research, public education, and advocacy.

Non-Discrimination

Ensure there is no discrimination against colleagues or students on the basis of sex, race, ethnicity, disability or other factors that are not related to their scientific competence and integrity.

Competence

Maintain and improve your own professional competence and expertise through lifelong education and learning; take steps to promote competence in science as a whole.

Legality

Know and obey relevant laws and institutional and governmental policies.

Animal Care

Show proper respect and care for animals when using them in research. Do not conduct unnecessary or poorly designed animal experiments.

Human Subjects Protection

When conducting research on human subjects, minimize harms and risks and maximize benefits;

respect human dignity, privacy, and autonomy;

take special precautions with vulnerable populations;

strive to distribute the benefits and burdens of research fairly;

ensure there is informed consent from all research participants;

all participants in a research initiative must receive some direct benefit from AIFO's activities;

and, ensure that persons who do not wish to participate in any research, do not face any negative consequences for their non-participation in any activity.

(Adapted from Shamoo A and Resnik D. 2009. *Responsible Conduct of Research, 2nd ed.* New York: Oxford University Press).

Annex 5

Authors

Mario Biggeri is Associate Professor in Development Economics at the Department of Economics, University of Florence, Italy, and the Director of the Master in Development Economics. He is Scientific Director of the research Lab ARCO (Action Research for CO-development) of the University of Florence. His research interests include impact evaluation and the theory of change, local development (clusters of small and medium enterprises, and informal activities), child labour, children and persons with disabilities, and capabilities and international cooperation. He is the co-author or co-editor of seven books and has published extensively in a broad range of international journals.

Sunil Deepak is a doctor with master degree in disability studies. He is head of Scientific Department for AIFO/Italy. His areas of work include research, monitoring, evaluation and training in social, health and development domains, especially in issues linked to leprosy, primary health care, disability and rehabilitation. For more than twenty years, he has worked as consultant for WHO/DAR in Geneva as well as in different countries in Africa, Asia and Latin America. He has been member of Medical Commission of ILEP for different periods between 1989-2010, and president of the ILEP federation between 2006-08. He was member of the core-group for the preparation of CBR Guidelines as well as a reviewer for World Disability and Rehabilitation report. He is a member of Italian Global Health Watch and People's Health Movement. He has coordinated numerous workshops and training courses on disability, rehabilitation, research, CBR, etc. He is the global coordinator of S-PARK/CBR initiative.

Vincenzo Mauro received his PhD in Applied Statistics from the University of Florence 2008) working mostly on policy evaluation under a causal inference framework. During his visiting scholarship at the Johns Hopkins University (Baltimore, USA) he developed a model combining instrumental variables (widely used in econometrics) and causal inference. He also worked (2008) in the statistical group of the Tuscany Region, as supervisor of the Statistical Program, and at the Economics Department of the University of Florence as a research fellow on human development (2009-2011). Since November 2011 he is employed as experienced researcher at the Institute of Education (University of London), working as main supervisor of a cross-national survey based on the capability approach.

Jean-Francois Trani, PhD, assistant professor at the Brown school of social work, Washington University in St Louis, has carried out over the last fifteen years several case control studies in Afghanistan, Cameroon, Djibouti, India Nepal, Sierra Leone, and Sudan looking at development effort impact and circumstances of vulnerable groups. He received grants from UN agencies (UNDP, UNOPS, UNICEF), Swiss and French Cooperation and research agency, DFID, and the World Bank for these various projects. He compared circumstances of vulnerable groups and other social groups in terms of wellbeing, access to services (health, education), multi-dimensional poverty and assesses the impact of development programs on the wellbeing of these vulnerable groups.

Jayanth Kumar Y. B. is a disabled activist and has completed PhD in sociology on inclusion of disabled people. He started his career as first as a student and then as a CBR worker and supervisor at the Shri Raman Maharishi Academy for Blind (Bangalore, India). He is working as CBR coordinator for AIFO/ India since 2000 and has been responsible for numerous training courses for CBR programmes and DPOs. He has attended international training course on CBR organised by WHO and AIFO in 2003, and has participated in a number of disability related research projects at national and international level. He is coordinator of S-PARK/CBR research initiative in India.

Parthipan Ramasamy has done Master in community physiotherapy and community-based rehabilitation. Between 2006 to 2009, he has taught in Alva's college of physiotherapy, Moodabidri (Karnataka, India). In 2009, he joined S-PARK/CBR as research officer and has looked after organisation of community surveys for the data collection of the quantitative research. He is continuing as research officer for the emancipatory research.

Parul Bakhshi, PhD, is a social psychologist and assistant research professor with the Program in Occupational Therapy, at Washington University School of Medicine, as well as the Brown School of Social Work. Over the past eight years, she has worked as researcher and advisor on various programs with University College London as well as NGOs and UN bodies. She has extensive experience in designing and implementing research, as well as working alongside various national and international stakeholders in defining policies that are evidence-driven.

Ramesh Giriyappa has done MA in Sociology, B.Ed "Special education in Visually impaired" and Diploma in "special education in Mental Retardation". He started his career in 1992 as CBR worker and then as a CBR coordinator. At present, he is as CBR executive for Shri Raman Maharishi Academy for Blind people (Bangalore, India). He has been responsible for numerous training courses for CBR programmes, SHG and DPOs. He contributed more on planning and implementation of S-PARK CBR Research in the field.

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Italian Association Amici di Raoul Follereau (AIFO) is a non-governmental organization active in 28 countries in Asia, Africa and South America. Its mission is to promote development, self-reliance and empowerment through health and social programmes focusing on persons affected with leprosy and persons with disabilities.

AIFO works closely with **Disability and Rehabilitation team of World Health Organization** (WHO/DAR). This volume is about a research on impact of ten years of a cross-disability community-based rehabilitation (CBR) programme covering nine sub-districts in Karnataka state of India. This research carried out in 2009-11, was part of joint AIFO and WHO/DAR joint plan of work.

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