



**Collaborative Workshop on Participatory Research and Capacity
Building of Institutions in Afghanistan and Pakistan in Sustainable
Sanitation**

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We look forward to our next workshop with enthusiasm!

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Acronyms

AKRSP	Aga Khan Rural Support Program
BIOFORSK	Norwegian Institute for Agricultural and Environmental Research
CIIT	COMSATS Institute of Information Technology
CLTS	Community Led Total Sanitation
CSMRI	Chemical Salt and Marine Research Institute
CTC	Child to Child
CWS	Church World Services
DACAAR	Danish Committee for Aid to Afghan Refugees
ICARDA	International Centre for Agricultural Research in Dry Areas
IRSP	Integrated Rural Support Program
MRRD	Ministry of Reconstruction and Rural Development
NCA	Norwegian Church Aid
NGO	Non Governmental Organization
NOC	No Objection Certificate
NOMA	Norad Master's Degree Program
NORAD	Norwegian Agency for Development Cooperation
NWDA	North West Development Associate
PIEDAR	Pakistan Institute of Environment Development and Action Research
PVDP	Pakistan Village Development Program
SLTS	School Led Total Sanitation
UMB	Norwegian University of Life Sciences
WASH	Water Sanitation Health Hygiene
WATSAN	Water and Sanitation
WES	Water and Environmental Sanitation
WSP	Water Sanitation Program (World Bank)

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Collaborative Workshop on Participatory Research and Capacity Building of Institutions in Afghanistan & Pakistan in Sustainable Sanitation

1.0 Background of the Workshop

This workshop is the result of the merging of two processes focussing on institutional collaboration in Afghanistan and Pakistan. In Afghanistan, Noragric has, in collaboration with Norwegian Church Aid (NCA) conducted participatory research in livelihoods in two provinces of Afghanistan. In this work, we saw a great potential for contributing further toward capacity and institution building in Afghanistan in several rural development sectors, including water and sanitation, and especially in sustainable sanitation. By sustainable sanitation we mean sanitation facilities and practices that are socially, culturally, economically and environmentally sustainable in the long run. In 2008, Noragric was requested by Norad under our frame agreement to further explore the possibilities of engaging with organizations in Afghanistan to support Afghan institutions working in rural development. To address this challenge, we decided to explore how working with rural water and sanitation issues could, in fact, contribute to building competence and strengthening institutions working in rural development in general.

The reasons for choosing water and sanitation and related institutions in Afghanistan are several. First, rural water and sanitation issues are directly connected to people's health, quality of life, and ability to effectively pursue sustainable livelihoods. Only 23% of Afghans have access to safe drinking water and 12% to adequate sanitation. Lack of safe drinking water supply, sanitation and inappropriate hygiene practices have resulted in deterioration of public health conditions and severely affect the quality of life particularly for Afghan children and women. One out of five children dies before the age of five from water borne diseases.

Also, after more than 20 years of war, a decade of drought and unsustainable use of natural resources, the Afghan environment is extremely degraded. Water shortages and deforestation are particular concerns for Afghanistan's development. Being a war-torn country, many of the water and sanitation related institutions are under-staffed and under-funded. National plans for water and sanitation are developed but both human and financial capital is lacking to operationalize these plans. The government and donors are trying to build the capacity at national and sub national level but many of the institutions working at the provincial and district level are in dire need to visualize, plan, design and implement water and sanitation projects that could encourage local participation and ownership and develop sustainable solutions. Such capacity building in the local organizations/ ministries/districts will thus not only contribute to more sustainable water and sanitation activities, but to strengthening other activities as well that will improve the livelihoods of the rural and urban poor.

Due to the immense challenges of human and institutional capacity building in Afghanistan, it is both relevant and cost-effective to build on existing regional experience, alliances and collaborations which are already working in capacity and institution-building in water and sanitation. In Pakistan, for example, the water and

sanitation situation is also not satisfactory, with more than 40% of the population without access to safe water and around 60% of the rural population requires improved sanitation. In Pakistan, however, there exists a somewhat higher degree of institutional and human capacity than in conflict-ridden Afghanistan, making it a relevant partner in contributing to human and institutional capacity development in Afghanistan. There are currently several existing initiatives which could be built upon to support Afghanistan's needs for institution and capacity-building.

For example, CIIT University, Abbottabad, has recently (with government and Norwegian NOMA funding) established an MS program in "Sustainable Water Sanitation Health and Development". This program, in which students write a thesis based on fieldwork in rural communities, is in the process of linking with organizations and institutions working in rural water and sanitation in Pakistan, such that the research will be immediately relevant to local communities, implementers, and governments. In particular we have made links with those involved in Community Led Total Sanitation (CLTS), who work both in Pakistan and Afghanistan, and who had shown a strong interest in linking CLTS with the development of sustainable sanitation systems (this is discussed further in the following sections of this report). Besides producing graduates specialized in sustainable water, sanitation, health and development, CIIT has the capacity to train national and regional institutional partners through tailor-made special short-term courses. Norway has been contributing to capacity building of Pakistani institutions for more than 12 years including joint research and development projects with AKRSP, University of Peshawar and CIIT Abbottabad. The institutional collaboration between Norway and Pakistan has documented significant impacts on the partner institutions and in particular their efforts towards the development of sustainable water and sanitation projects. Currently UMB and CIIT Abbottabad have several collaborative projects, including the NOMA funded master program in sustainable sanitation, student and staff exchange and are developing a joint integrated research project. The experiences of UMB and CIIT in working together, working with community institutions and democratic participation of local women and men, developing locally appropriate technologies and influencing research and government policy can be shared with the Afghan partners.

Recognizing the advantages of linking Afghan institutions with Pakistani institutions already working on similar issues, we decided to merge these processes by inviting key Afghan organizations and institutions to join Pakistani institutions in one, larger workshop at CIIT, Abbottabad. This gave us, in fact, a unique opportunity to explore regional collaboration in rural development, and particularly in sustainable sanitation, and to see how we (Noragric/UMB and CIIT) could facilitate capacity and institution building in both countries, and between both countries. Thus the workshop was born...with an incredible effort on the part of CIIT to make it work despite the rather short notice they had to arrange this event!

The following sections give an overview of the presentations by the organizations participating, and some of the main points brought out in the discussions. Whenever possible we pull out what these points might mean for future collaborative activities in rural development and sustainable sanitation both in Afghanistan and Pakistan. The sections are organized by theme, with the days and sessions identified in italics to allow the reader to follow the workshop progression as well. The power point presentations

themselves, as well as an electronic version of this report, are available on Noragric and CIIT's websites.

Day I - Monday March 2nd, 2009

2.0 Opening Ceremony and Workshop Objectives

The opening ceremony of the workshop started by recitation from the Holy Quran, after the recitation Dr Bahadar Nawab welcomed all the guests and participants to the workshop and provided practical information as well.

All guests and participants introduced themselves. There were a total of 39 main participants at the workshop, three of which were Norwegians, and nine of which were Afghans. Although 15 Afghans had been invited, several were not able to attend at the last minute for various reasons, including representatives from the Ministry of Reconstruction and Rural Development (MRRD), the Polytechnical, and Kabul University. Those who did attend represented key organizations working in watsan and agriculture, as well as education and elected officials of Faryab Province, which receives a considerable amount of development funding from the Norwegian Embassy in Kabul. From Pakistan there were representatives from international and local organizations working in Watsan, as well as participation on one of the days by the Ministry of the Environment. In addition, 23 MS students attended the workshop.

Dr. Gry Synnevaag gave an introduction to the workshop, in which she thanked everyone for participating and the organizers for organizing the workshop on such short notice. "I see water and sanitation as an important factor in development. The main idea of the workshop is to gather researchers, practitioners, institutions and implementers, learn from each other and to see if it is possible to move together. We would also like to identify future challenges, and see if we can create change and a positive impact. Our ultimate goal is improvement of health and rural livelihoods" said Dr. Gry Synnevaag.

The following objectives of the workshop were also presented:

- To listen to what organizations are doing in WATSAN, and what main challenges they are facing in terms of sustainability
- To share our emerging interdisciplinary applied research and capacity building programs in sustainable sanitation, and discuss how we could better focus this work to address the needs and challenges faced by those working in WATSAN in rural communities
- To develop concrete institutional linkages and capacity building activities which will improve the ability of local institutions to actively engage in the development of innovative WATSAN approaches and technologies.

The introduction to the workshop was followed by the Vote of Thanks by the Director of CIIT Abbottabad, Dr Haroon Rashid, in which he mentioned that at CIIT Abbottabad, we share the concern for sanitation and that CIIT is always willing to collaborate for research. Dr. Haroon also said "we are here to discuss and concentrate on the sanitation issues of Afghanistan and Pakistan, and we will hopefully end with useful outputs for

implementation'. The Director CIIT also gave a brief introduction of CIIT. The vote was ended by thanking all the participants, guests and organizers for joining together at CIIT for the workshop.

Session 1 - Chair: Dr. Gry Synnevaag

3.0 Approaches, Opportunities and Challenges in Sanitation in Afghanistan and Pakistan

Before introducing the presentations, Dr. Gry Synnevaag said a few words on sanitation. "Water and sanitation have a profound effect on public health and are linked to development. Safe drinking water and sanitation facilities are important in households and communities, but also in schools, workplaces, hospitals, markets and other public places. The consequences of poor sanitation are still devastating in developing countries causing outbreaks of infectious diseases and high child mortality. The Millennium Development Goals are far beyond our reach, conventional sanitation has failed. We now look to sustainable sanitation to help us face these challenges. We need a system which will be able to sustain itself technically, economically, culturally and institutionally. The conventional approach to water supply, sanitation and wastewater as an engineering and technical problem does not achieve the anticipated health and environmental benefits. On the other hand an exclusive focus on socio cultural and institutional aspects is not sufficient to develop innovative solutions. The goal is to develop appropriate technical and institutional solutions that are acceptable to cultural practices. An understanding of gender, culture and social relations is often missing, but essential in designing and implementing and appropriate water, sanitation and hygiene awareness programmes that are effective, safe and restores the dignity of the affected population. Considerations about how programs may cause risks and lead to conflicts are also important to understand. It should also be recognized that sanitation protects health best when practiced by all. The benefits of sanitation to a household are limited if other community members defecate in the open. The sanitation status of the whole community is important and implies behavioral changes. How to encourage and empower people towards behavioral change and communal action is therefore one of several aspects important to address to achieve sustainable sanitation Sustainable sanitation involves many aspects from technical to cultural to questions of empowerment, ownership, local decision making and action. Our hope is that the presentations during the workshop will show the complexity and diversity of aspects to be addressed, and suggest new ways to develop ideas and solutions to improve poor people's livelihoods.

3.1 Afghan Institutions

To try to bring the participants out of the conference room and into the context of rural sanitation, a short film on CLTS in Bangladesh was shown. This set the mood for the first presentation, which was by Zekarias Asfaw Shenkut representing Tearfund, an organization working in Afghanistan. Their work regarding Watsan includes work on household and community latrines and health promotion. The organization initially focused on refugee camps, but now also runs a WASH program in communities. The program uses CLTS as an approach to the communities, and employs household water treatment technologies including bio sand filter production and distribution. Tearfund is using radio programs on hygiene education and CLTS to increase awareness, and related

to their bio sand filters they use a dissemination approach. The organization is also carrying out research on ecological sanitation (ecosan) latrines in the Kandahar province, and future plans include scaling up the WASH program countywide.

The second presentation was by Naabi Azaad representing Norwegian Church Aid (NCA) in Afghanistan. The focus of the presentation was on the Water Supply and Sanitation Program- community based approach. The objective of the organization is to “Improve rural livelihoods”. The organization also focuses on adequate supply and access to water. After the presentation a short film by NCA on drinking water desalination in Faryab Province was shown. The desalination plants are community based and operated and maintained by barefoot engineers trained at CSMRI (Chemical Salt and Marine Research Institute) Gujarat, India. The plants have contributed to access to safe drinking water in communities that were dependent on water aid and transport of drinking water from long distances.

The next presenter was Mr. Gerry Garvey representing DACAAR in Afghanistan. According to the speaker more than 5 million people in Afghanistan have benefited from the organization’s work on Watsan, particularly through emergency water supply to refugee camps. The organization is also working on water supply, sanitation and hygiene education in Afghan communities. The basic challenge the organization is facing is the lack of sectoral co-ordination. DACAAR is currently the secretary of the Water and Sanitation Sectoral Group (WSG) in Afghanistan, which connects them with key government and non-governmental institutions working with watsan. They also presented their current plans to develop a ‘Knowledge Center’, which would contribute to human resource development and sharing of knowledge in the field of watsan.

Session 2

Shamsuddin Siddiqi from ICARDA gave an overview of the Watsan projects in Afghanistan. He stressed the link between agriculture and sanitation and the potential in many areas to use properly treated waste in agriculture. This would provide both water and valuable nutrients for the production of food and other important crops. He referred to many interesting activities in his presentation, the full list of which is in his power point presentation.

Shir Ehsan, Councilor of Higher Education, Faryab Afghanistan, gave an overview of the problems of students in Afghanistan pointing out their lack of resources, material and research facilities. He also mentioned the need of collaboration and institutional capacity building for improvement. Similarly in the next presentation Abdul Qayom, councilor at the Faryab District Office, Afghanistan, brought to attention the fact that water is a concern for everyone in Afghanistan, as most of the ground water is contaminated and undrinkable. Insufficient downstream water is a reason for conflict in Afghanistan, according to the speaker. Both strongly recommended Norwegian support and collaboration to build capacity at the agricultural college in Faryab

3.2 Pakistani Institutions

The next presentation delivered was by Farooq Khan from North West Development Associate (NWDA, who is drafting sanitation policies for Afghanistan) who presented

the National Rural WATSAN Sector Review for Afghanistan. Mr. Farooq pointed out that Afghanistan needs to work on toilets and toilet hygiene rather than merely on personal and household hygiene, as they seem to be doing quite well already in that area. He also emphasized the need for School Led Total Sanitation (SLTS) to educate females. He emphasize that organizations working on the sanitation sector in Afghanistan should make sure that technological interventions are flexible, and their concentrations should be on impacts rather than merely counting toilets.

Tayyab Shahzad representing the Ministry of Environment, Government of Pakistan gave an overview of the WATSAN policy in Pakistan. The governments of Pakistan's efforts for development of explicit sanitation as well as water supply policies were appreciated and participants of the workshop felt that the policy formulation process and the lessons learnt could be utilized in the case of Afghanistan as the two neighboring countries have many similar challenges. However, it was felt that the government of Pakistan needs to work hard to develop an effective strategy and action plan to implement the policies into practice and thus help resolve sanitation and water related issues. Responding to some queries Mr. Tayyab explained that all four provinces and Azad Jammu and Kashmir (AJK) have been asked to develop their provincial strategies for implementation of the sanitation and water supplies policies.

The next speaker, Irfan Alrai from WATSAN Program (WSP)- World Bank spoke about their water and sanitation program, saying that their goal is to 'alleviate poverty' by policy, institutional and behavioral reform. He also pointed out that for an impact an enabling environment, sector transformation, service provision and social accountability are required. Mr Alrai urged "The Government should be focused on public good instead of private good." He emphasized the importance of the CLTS approach, of which WSP has been an active promoter globally. WSP is also part of the CLTS steering group in Pakistan. A bit later in the workshop he showed an animated movie on CLTS. The movie introduced the idea of village activists taking a lead role in the promotion of CLTS, not only in their own villages, but in others as well. An activist could in fact become a 'Barefoot Consultant', who could earn a living by assisting NGOs and governments in implementing CLTS programs, as well as being involved in the marketing of whatever hardware is being demanded in local markets as a result. This is an innovative idea within CLTS, and organizations implementing CLTS in other countries are eager to learn from Pakistan's experience with this approach.

The last presentation of the session and the day was by Shah Nasir from Integrated Rural Support Program (IRSP) on CLTS. Up until this presentation, CLTS had been mentioned by several organizations, and presented in two short films, but the details were not gone into. In his presentation Mr. Shah gave an insight into CLTS and how it differs from conventional approaches. CLTS was further discussed following the presentation, as well as in the later discussions, where more information and ideas about the successes, potentials and challenges of this approach were discussed.

CLTS is an approach which originated in Bangladesh, but that has now spread to over 20 countries in both Africa and Asia. Its main focus is to bring to the attention of the villagers the health risks of open defecation through a community-based awareness-raising process called 'triggering'. Triggering occurs when, through demonstration, the villagers realize how disgusting and harmful open defecation is, and becomes motivated

the villagers to stop open defecation, construct latrines, and make their villages ‘Open Defecation Free’ (ODF). There is a strong emphasis on local solutions, and a reliance on local resources, rather than the provision of toilets and subsidies. IRSP presented the following table comparing conventional approaches with CLTS approaches:

DIFFERENCE BETWEEN CLTS AND CONTEMPORARY SANITATION		
	THE PAST TARGET DRIVEN PARTIAL SANITATION	Now And The Future Community Led Total Sanitation
Start with	Things	People
Cover activity	Constructing latrines	Igniting and facilitating processes
Latrines designed by	Engineers	community innovators
Number of designs	One or a few	many
Main materials	Cements, pipes, bricks, etc. Purchased from outside	, wood, tin, plastic, etc. almost all locally available
Cash cost	High	can be under 300 Rupees
Indicators	Latrines constructed	open defecation ended
Sustainability	Partial and patchy	High
Who benefits	the better off	all including the poorest
Key motivation	subsidy	disgust and self respect
Coverage / usage	Partial	total
Benefits	Lower: open defecation continuing	Higher: open defecation ends

CLTS also separates itself from existing health and hygiene approaches in that it achieves awareness and changes in behavior much more quickly than merely teaching villagers to wash their hands and keep their houses clean. Whole communities become aware and are ready to construct latrines quickly to achieve ODF status. Government ministries have been very keen to support CLTS, in that it achieves their policy goals both quickly and at a much lower cost. CLTS could in this respect be an important approach to introduce more widely in Afghanistan, where poor sanitation is the cause of widespread suffering, particularly in the rural areas (as presented in the introduction of this report). Until now, only TearFund has implemented CLTS in Afghanistan.

Despite the success of CLTS both in Pakistan and globally, there are still many challenges which need to be addressed to ensure that the successes achieved in the short term are sustainable. In that respect, those organizations implementing CLTS are looking for, for example, more appropriate and environmentally sound sanitation options, at low costs, to ensure everyone has access, and that the solutions are not contaminating the groundwater or leaking into open areas. There has also been concern as to whether the emphasis on the disgust of human waste hinders the development of solutions where waste, after treatment, is used as a source of nutrients in agriculture. These ideas were discussed later in the workshop when the potentials of sustainable sanitation were presented.

Day 2 started with a presentation by Mr. Ijaz Rasool working as social mobilizer for Pakistan Institute of Environment Development and Action Research (PIEDAR) Pakistan. He presented an overall introduction of his organization with details of its sanitation and rural development activities in Punjab and Balochistan provinces of Pakistan. Their focus is on community participation and action research in sanitation. The idea of action research here was quite relevant to later discussions of how CIIT/UMB could work together with the organizations to make research on sustainable sanitation immediately relevant to village women, men and children.

The second presentation was by Mr. Mohammad Riaz from Society for Sustainable Development (SSD). In this presentation, issues like School Led Total Sanitation, provision of water and sanitation at school level, training of teachers and Child to Child (CTC) communication were discussed. It was mentioned that whatever is taught in school eventually goes to the community. We need to establish a loop between community and school. SLTS is a combination of CLTS and CTC. Mr. Riaz also mentioned that security, limited access to women, lack of trust by community for NGO's is hindering social mobilization. Concerning the effectiveness of SLTS, teachers are respected local human resources and children going to school are the message carriers. He claimed this approach showed improvement in household level sanitation where parents were influenced by school children. The implications of taking such an approach are many, including that there is a focus on community level facilities which may require different solutions than simple latrines, and different models of investment and maintenance.

The third presentation was by Ms. Sadia from Church World Service (CWS). She mentioned that her organization is working in three major areas which are: Capacity building, Social development and Disaster response program focusing on Watsan. Obtaining NOC for water schemes, remote areas, bad weather, land sliding, traditional politics and socio-cultural norms regarding women are the main challenges her organization is facing. She also highlighted the major lessons her organization has learnt during their work in sanitation projects. Among these were: do not set ambitious targets; keep in mind the social, political and religious context when planning activities; there is a need to work continuously on mitigation and preparedness instead of waiting for the next disaster; and, a delay in recovery efforts will only make beneficiaries more vulnerable to economic instability.

Next was a short introduction by Ms. Bushra Ghazanfar, Resident Representative of NCA-Pakistan, where she explained how NCA now works with rural water and sanitation through local partners, three of which were attending the present workshop. This was followed by a presentation by Saifullah Khan from PVDP, who was representing all of NCA's partners, who were all implementing similar programs with NCA. He mentioned in particular community and school WES projects of his organization as interesting and promising approaches.

The presentations from CWS and NCA/PVDP both show sanitation work in the context of reconstruction and development after a natural disaster - the South Asian earthquake in

2005. The challenges and lessons learnt from this work will prove useful to prepare for possible future disasters of the same kind, and gives another dimension to the notion of sustainable sanitation: with local capacity and competence for sustainable sanitation facilities rehabilitation might happen much faster and efficient. It was noted in the discussion that there are particular challenges associated with working in post-disaster sanitation, such as the construction of temporary facilities as opposed to permanent, and how to interact with communities who have experienced heavy human losses and trauma.

3.3 Discussions on sanitation approaches and critical challenges

Discussions were held both between the presentations and at the end of the session, where the presenters answered questions regarding presentations, identified new and interesting approaches, as well as challenges faced by practitioners. Details of what each organization is doing in watsan can be found in their individual power point presentations, but we have listed a few here to give an indication of some of the more interesting activities which came up in the discussion about ‘what is working’ and ‘what is new’?:

- Watershed management and protection of catchment areas rather than merely water points
- Household treatment of drinking water- bio sand filters
- CLTS
- Desalination of water
- Freeing time for other activities
- Community approaches with local participation
- Willingness to pay for structures and services
- Use of existing networks
- Ideas and plans or sharing of data - ‘Learning Center’
- Rain water harvesting (household and schools)
- Use of snow storage
- Use of nutrients from human waste in agriculture
- Collaboration in education

In fact one thing that came out clearly from the presentations is that there are a lot of good ideas and activities at the micro level, however they tend to be isolated, and with no real opportunity for the organizations to share experiences and learn from each other.

Despite a lot of good effort put in by the organizations, they faced many challenges in their work, ranging from policy to local level implementation. Some of those mentioned in the discussions were:

- Issues around paying for water, maintenance and services, as well as subsidies: They were concerned with peoples’ willingness to pay, as well as the poor’s ability to pay.
- Knowing which technical option is best is difficult: how does one ensure the optimal use of resources?
- The cultural set-up can be a challenge for NGOs working in rural communities

- Shifting from a water point approach to a broader water catchment approach
- Access to information, information sharing, coordination, networking and data sharing
- Linking with local knowledge, and not losing ‘dying wisdom’
- Funding has a short-term perspective
- Linking with government, and feeding into government policy
- Building confidence
- A rather philanthropic approach in some organizations (giving of charity rather than promoting local confidence and capacity)
- Conflict resolution: upstream vs. downstream
- Linking water, sanitation and agriculture (often treated separately)
- Promoting community level, bottom-up approaches, in the face of limited local capacity

The next session was comprised of group work, where the participants discussed in more detail how they work with water and sanitation in the field. They addressed the questions:

- What are the key elements of a good approach and why?
- What are the most critical challenges you face?

Some of the challenges which had come forth in earlier discussions resurfaced here, as well as others. According to the groups, good approaches are:

- Flexible and adaptable to local environments
- Involve all stakeholders to ensure mobilization and inspiration
- Bottom-up, need-based to be able to address basic, experienced community problems
- Participatory, including particularly women as equal participants
- Culturally, gender and age sensitive
- Incorporating local knowledge, practices and resources to ensure sustainability
- Involving the promotion of Natural Leaders/Activists, to ensure changes are acceptable to the community and sustainable in the longer term
- Emphasizing awareness
- Affordable, and able to somehow be replicated
- Showing good coordination between stakeholders

The participants hoped that by following the listed good approaches, the outcome would be local ownership for the activities, positive behavioral change, sustainability, accessibility to services, and environmentally sound facilities. They did, however identify critical challenges they face in trying to follow such approaches, including:

- Inadequate organizational capacity
- Community attitude
- Political influence
- Government policy
- Local conflicts

- Poverty
- Lack of awareness/information/prioritization within the organization
- Socio-cultural barriers/challenges
- Lack of resources/interest by government
- Misconception/perception about organization

It was clear from these discussions that despite a lot of good efforts in addressing sanitation issues, there are still many challenges, and a lot of work needs to be done to critically examine existing approaches and how they can be improved in practice through sharing experiences, working much more closely with local communities in finding solutions, and influencing policy. This could be done, for example, through networking and conducting applied research.

3.4 Discussions on WATSAN Institutional Landscape in Afghanistan and Pakistan

NGOs do not work in isolation in sanitation, but interact with and are influenced by a large number of institutions, either working directly in sanitation, or in areas closely related, such as environment, agriculture, health and rural development. These institutions can be governmental or private, local, national or international, and their relationships can be complex. We asked two groups to try to think in terms of the institutions involved in rural sanitation by addressing the following questions:

- Describe the institutional landscape of rural sanitation in Afghanistan and Pakistan:
 - Who are the actors/institutions involved in rural sanitation?
 - What are their current responsibilities?
 - Who is linked to whom and in what ways?
 - Where is their capacity and for what?
 - What are the capacity needs and for whom?

From the discussion it was clear that there are many institutions involved in water and sanitation in both Pakistan and Afghanistan, each with their more or less defined roles, although these are not always clear to all involved in water and sanitation activities. The groups in fact needed much more time than given to sort out all the possible institutions involved. Thus, while the groups did not come with a complete analysis of institutions (which would of course have been an unreasonable request on the side of the organizers!) the exercise nevertheless allowed the participants to think beyond their own organizations about what other institutions are involved, how they relate to them, what their capacities are, and how their roles might be enhanced or perhaps even re-defined to improve rural sanitation systems. This exercise revealed quite clearly, for example, the lack of coordination between various institutions working in this field particularly in Afghanistan, which had been mentioned earlier as an important constraint by DACAAR, who itself plays a role in trying to coordinated efforts in Afghanistan as secretary for the Water and Sanitation Sectoral Group in Kabul. Also, although the roles of institutions in Pakistan might seem clearer than in Afghanistan, there is nevertheless confusion when it comes to where responsibilities for implementation actually lie in practice.

3.5 General Conclusions from the Afghan and Pakistani Presentations:

In conclusion, the first day and a half of the workshop addressed the first objective, focusing on the presentations of organizations from Afghanistan and Pakistan working in WATSAN and rural development. Each presenter briefly introduced their organization, the scope and nature of their development activities and the major challenges they faced. The participants learned who is doing what, where and how. Several new approaches were put forward, discussed and areas of common interest and challenges were identified. In particular, CLTS was discussed as an innovative way to create awareness quickly and effectively, motivating communities to find low-cost solutions to their sanitation challenges. Nevertheless, a number of challenges remained, including the need to share innovative ideas, and to develop solutions that are culturally, socially, economically and environmentally sustainable. This set the stage for moving on to address the second workshop objective in the next session.

Note: Following the discussion, the short film “The story of Younis” focusing on CLTS was shown by Mr. Ifran Alrai. As mentioned earlier in connection with the WSP presentation, the film illustrated the potential for motivating village natural leaders/activists to become ‘barefoot consultants’, who would, after awareness raising and ‘triggering’ in the community would follow-up with other activities in a self-employment capacity, possibly taking on entrepreneurial activities such as linking the community to local markets.

4.0 Potential contribution of CIIT and UMB in Sustainable Sanitation

The next presentation addressed the second workshop objective. Based on the challenges and needs identified by the participants, how could the current and planned research, education and training activities of these collaborating institutions be developed such that they are useful to those involved in water and sanitation in Afghanistan and Pakistan? In other words, how might CIIT Abbottabad and Noragric /UMB contribute?

The session started with Dr. Gry Synnevaag presenting the Department of International Environment and Development Studies (Noragric) which she is heading at UMB. Noragric has a multi- and inter-disciplinary approach to its study of international environment and development studies. In particular, efforts are made to link development and environment, as well as the micro and macro levels. It is involved with both education and research. And actively contributes to environment and development policy both nationally and internationally. Dr. Synnevaag also pointed out Noragric’s collaboration with educational, research and development institutions in several continents; among these, CIIT Abbottabad.

Dr. Ingrid Nyborg, went on about how the new MS programme of Sustainable Water, Sanitation, Health and Development at CIIT came about. The MS degree is a triangular Masters programme between CIIT Abbottabad, UMB and Tribhuvan University in Nepal. Already existing linkages to Nepal and Pakistan were the backdrop against which the MS programme was developed, with financial support from Norad’s programme for master studies (NOMA). The new programme has become a unique master study

benefiting from the interdisciplinary focus at Noragric and combining technical competence with social and cultural understanding. Also, rather than taking a conventional one-way technology transfer approach, this program explores how we, together, can combine different types of knowledge and expertise in the North and South to create new approaches and technologies in rural sanitation.

This collaboration has in turn lead to the realization that there is more that needs to be done within this field of study beyond the scope of the master programme. This sparked the idea of joint applied research to be carried out within sustainable sanitation. The vision is to re-define research approaches to environmental sanitation such that they are more participatory and need-based, making the technologies developed more culturally, socially, economically and environmentally sound, as well as more effective in leading to rural development and improved health. We saw the opportunity as well to link partners in Afghanistan with the work going on in Pakistan such they could benefit in terms of building their own human and institutional capacity to do applied research, educate and train within the field of sustainable sanitation. The current workshop represents our attempt to open up the floor to allow input from both Pakistani and Afghan partners in this process.

Mr. Ola Hanserud, working with sustainable sanitation at the Norwegian Institute for Agricultural and Environmental Research (Bioforsk), then presented some of the current technology options in Norway within sustainable sanitation. Some of these are wastewater treatment options using natural systems for purification, like constructed wetlands (free water surface or horizontal subsurface flow) and soil infiltration systems. Another type of technology within sustainable sanitation is fermentation processes like liquid composting of toilet waste (and food waste) that gives a hygienized and stabilized liquid fertilizer product. The use of biogas reactors is another fermentation option that in addition to producing a liquid fertilizer product also gives biogas for lighting and cooking. The solutions are adapted to the social, economic, and climatic context in Norway, but the principles for treatment are general and can also be applied to an Afghan or Pakistani context, with proper attention given to socio-cultural, economic and local environmental conditions.

Finally, Dr. Bahadar Nawab motivated the participants to embrace the concept of ecological sanitation in Pakistan and Afghanistan through presenting existing practices and showing how they fail to deal with a range of problems – and in fact create new problems. He argued that existing practices of sanitation, such as flush toilets, simple latrines, paving of roads and piping waste out of homes directly into rivers and fields cannot break the faecal-oral pathogens cycle. Instead, they are inappropriate, costly and with adverse consequences on the environment, they waste already scarce drinking water as well as the valuable nutrients, which could with proper treatment, be utilized in agriculture.

In fact, prevailing definitions for “improved sanitation” are in themselves misleading, as they include no element of sustainability or environmentally soundness. For example, a latrine would be classified as ‘improved sanitation, despite the fact that no one may use it, that no one will empty it and over flows, and that it is leaking into the groundwater. Rather than improvements, they offer rather simplified and ineffective solutions to complex social and natural processes. In sustainable sanitation, on the other hand, the

focus is on participatory approaches and ideally includes an understanding of the human waste as a resource – representing a big potential market value as a replacement for artificial fertilizer. Sustainable sanitation, rather than being dependent of solutions transferred from other contexts, thoroughly assesses the ecological, social, cultural, economic and institutional context in question in order to come up with solutions which are sustainable in the long run. There are several existing examples of ecological sanitation in Pakistan, both in industrial and village contexts, and the use of waste in agriculture has in fact a long tradition in the Northern Areas of Pakistan.

Dr. Nawab concluded with explaining how the new master study in Sustainable Water Sanitation Health and Development at CIIT Abbottabad – could be at the core of the development of research and training programs where students, researchers, villagers, organizations and government joined hands to find innovative ways to address the very real challenges in rural sanitation, such that contributes directly to rural development in both Pakistan and Afghanistan.

Session 2

The discussion that took place after lunch showed a keen interest by participants in learning more about the possibilities in developing sustainable sanitation systems through the different education and training opportunities at CIIT. This was discussed more in detail on the third day. The participants had several questions and comments around the different technical approaches presented in the previous session, and the link between ecological sanitation and agriculture. We discussed the use of wetlands and sustainable sanitation in urban areas, how to induce behavior change to improve current sanitation system, and composting. It was clear that such approaches required the development of a particular competence by villagers, village activists, organizations and government resource persons in conducting good quality social and environmental assessment order to develop such solutions and maintain and keep up different sustainable sanitation projects. It was also stressed that sustainable sanitation would easily complement approaches such as CLTS, which have shown good success in motivating villagers to improve their sanitation systems, but are searching for ways to be able to help villagers find more environmentally sustainable solutions that go beyond standard latrines. The ultimate goal of all of these processes goes in fact far beyond the development of sanitation systems, but to enabling villagers to take charge of their own development in order to achieve a better quality of life for everyone in their community.

Day 3 - Wednesday March 4th - Session I

5.0 Potential for future collaboration

On day three of the workshop we moved to addressing the third objective of the workshop, in which we would look at concrete opportunities to collaborate within the field of rural development and sustainable sanitation. The day began with a short introduction to the final group work. The purpose of the group work was to get an idea of how the organizations would like to collaborate with CIIT/UMB (and each other), based on what they learned of the competence and facilities available. The groups were asked to specify, as detailed as possible, the type of collaboration they would like, whether there was existing funding available, and, if not, what the potential funding sources might be.

To help them get started, a slide with possible forms of collaboration with CIIT/UMB (and with each other) was put up on the screen:

- Joint research
- Joining on-going MS program in Sustainable Sanitation
- Merging the CLTS and other approaches with sustainable sanitation
- Short courses for students, practitioners and village activists (i.e. natural leaders)
- Forums for sharing experiences, new approaches and technologies

The participants were then divided into three groups, one specifically looking at the needs and ideas of Afghan organizations and institutions, and the other two looking at the needs of Pakistani organizations and institutions.

5.1 Afghanistan Group Presentation and Discussion

a) Agricultural needs

The Afghan group presented their ideas in two parts, one on agriculture, and one on water and sanitation. While agriculture per se was not the main focus of this workshop, we nevertheless wanted to include some discussions on the linkages between rural sanitation and agriculture, and stress their interdependence when it comes to the promotion of rural livelihoods. The agricultural presentation highlighted a number of ways ICARDA and other agricultural institutions, dependent on the availability of funding, could link with CIIT in trainings, education and research. They defined the agricultural needs as:

Short trainings in the fields of Agriculture in collaboration with ICARDA:

- Village-Based Seed Enterprises (VBSE - seed production)
- Participatory Plant Breeding (PPB) + Research
- Field Inspection
- Seed processing
- Marketing

FOR MS Students

- Research on medicinal Plants
- Collection + catalogue
- Analysis
- Seed production
- Multiplication
- Uses through proper way
- Botany and Taxonomy
- Plant Science
- Physiology and
- Preservation

FOR Ph.D Students

- Establishment of agriculture gene bank
- Collection
- Evaluation

- Utilization
- Preservation

Subjects of collaboration

- Applied genetics
- Taxonomy
- Botany
- Plant Breeding
- Statistics

This presentation also highlighted the particular needs of the Agricultural College in Faryab, which included:

- Short trainings (3 months) for students in how to do practical agricultural and rural development work, since at present their education is exclusively theoretical
- Linkages between the academic staff of Faryab and CIIT, possibly through staff exchanges, joint curriculum development and team teaching
- Send one or two MS students to CIIT for MS studies
- Development of an awareness program in Watsan in the districts of Faryab.

Unfortunately, representatives from Kabul University were not able to attend this workshop. Noragric, however, already has an MOU with their Faculty of Agriculture, and if additional funding for institutional collaboration becomes available then these areas could be the basis of future collaboration.

b) Sustainable sanitation to improve livelihoods

The second part of their presentation focused on sustainable sanitation in Afghanistan. The group chose to focus on their short term needs in their presentation; however we discussed longer term ideas as well in the subsequent discussion. Their short term ideas included:

SHORT COURSES (3-4 weeks)

- Peri-urban and rural sustainable sanitation (multi/inter-disciplinary, technological solutions using a socio-culturally sensitive approach)
- Sanitation program/ project design and management
- Design/ implementation (field work) management

3 MONTHS CERTIFICATE COURSE (management, technology, approaches)

- Community water sanitation health and development
- Participation in existing modules, depending on their duration and eligibility requirements
- Water and sanitation engineering + management (computer aided design, CAD)
- Water chemistry and microbiology, and Public Health and risk assessment
- Applied Research Methodology in relation to sustainable sanitation, CLTS, water quality, ground water, D/imp, Watsan/ Public Health Policies, impact studies
- Joint research (2 way)
- Linking sustainable sanitation and CLTS

In the discussion, there was also talk of longer term goals. It would be important to identify an institution in Afghanistan which would serve as a permanent competence center in Watsan. Some of the suggestions included the Polytechnic and Kabul University, which could then easily link with DACAAR's plans for the development of a Knowledge Center. It was in fact important in the short and medium term to already now ensure that resource persons are trained to teach and do research in such a center. For example, it would be quite important for Afghanistan to send perhaps 10-15 MSc students (male and female) to CIIT to attend the MS program in Sustainable Water, Sanitation Health and Development, such that they could in the future contribute to education and training programs held at a competence center in Afghanistan. They also identified donors such as Norwegian Embassy and NORAD as possible sources of stipends for these activities, as well joint research activities together with the staff of the various organizations. Dr. Gry Synnevaag commented, saying that a small group needs to be formed in order to coordinate future plans and for follow up. DACAAR agreed to be focal point of this group and to follow up with the group in Afghanistan.

5.2 Pakistan Group Presentation and Discussion

The Pakistan groups expanded the list of the types of collaboration they would be interested in:

- Short courses (for example in solid waste management, and designing and developing water, sanitation and public health policies.
- Enrolling in MS program at CIIT
- Orientation/ training workshops
- CLTS Short courses (students/ participants)
- Facility utilization
- Guest speakers
- Seminar and workshop
- Student research
- Internal co-ordination
- Core group formation
- Quarterly meetings
- Network/forums
- Exploring other areas of interest
- Career development
- Visits (bidirectional)
- Distant learning between academic institutes and organizations
- Joint research and video conferencing

It was also stressed that the courses, rather than being purely technical-based, would be interdisciplinary and applied, as well as field-based whenever possible. The organizations also expressed an eager interest in having students connect with them for their field research (which was reciprocated by the students participating in the workshop). They saw many mutual benefits from such an arrangement. There were also recommendations forwarded for the future, for example that there was a panel of experts

formed for curriculum development based on emerging needs, that a fund raising committee be formed, and that strong linkages are developed between research institute and practitioners. The chairing panel commenting on the ideas generated by the Pakistani side said it realizes how important joint research is and that Pakistan is doing a lot of good work especially by the NGO's. Dr. Nawab said "We want this institution (CIIT) to be the hub of innovative sanitation practices."

All participants were then taken on a tour of CIIT, in which they visited all laboratories, academic blocks and libraries.

Session 2

6.0 Closing Ceremony and Workshop Follow-Up

Dr. Bahadar, after summarizing the workshop, delivered the closing note. He thanked all the guests and participants for actively taking part in the workshop. Dr. Bahadar summarized all events of the workshop and said "We are committed to do all that we can and we will make committees to do so."

Shah Wali representing all Afghan delegates thanked everyone responsible for the conference, and said that they had learnt a lot, especially about what others are doing and how they are doing it. He said the objectives of the workshop were achieved and a follow up, perhaps once a year, is needed. Mr. Shah Nasir representing the Pakistani organizations said "I hope we can continue to get good advice from all these sanitation experts. This needs to continue, in order to narrow the gaps in sanitation."

Dr. Gry said "I am extremely impressed in all ways. The objectives of this workshop were achieved beyond all my expectations. We now have a good starting point, we know what we can do, and I believe the follow up will be important."

The workshop ended with the closing note by Director CIIT, Dr. Haroon Rashid in which he said he is thankful to the sponsors for choosing CIIT Abbottabad as a venue for the workshop, he also thanked the 'life of the workshop' Dr. Gry and Dr. Ingrid and all his to our Afghan and Pakistani brothers. He also said that we now as an Institute owe many things to organizations in terms of networking, providing a focal point for joint activities and training etc.

Follow-up after the Workshop

Afghanistan

As agreed during the workshop, DACAAR will act as the focal point in Afghanistan for those who attended the workshop and for follow up of the activities suggested during the workshop (section 5.1). As secretary for the Water and Sanitation Sectoral Group in Kabul they play a central role in sharing new ideas with others in the sector, and can thus play a key role in informing them of the outcomes of the workshop and the possibilities of linking with UMB/CIIT for not only training and education, but for the building up of institutions in Afghanistan in the rural sanitation and rural development sectors. The next step in Afghanistan is to develop concrete proposals to donors for support for capacity building and institution building of Afghan resource persons and institutions based on the

ideas put forward in the workshop. These are already in progress. These ideas will build as well on DACAAR's current plans for a 'Knowledge Center' in Afghanistan, which will focus on human resource development, knowledge dissemination and appropriate technology. DACAAR could also play a role in supporting Tearfund in linking more organizations in Afghanistan with the CLTS network, such that they could learn more about how to implement such an approach in Afghanistan.

Pakistan

In Pakistan, the UMB/CIIT team followed up the workshop with 6 meetings in Islamabad at the request of several of the participants who wanted to make certain that their organizations were informed of the progress made at the workshop and the plans being developed as a result. Meetings with the following organizations and resource persons were held:

1. Mr. Farhan Sami Country Team Leader, WSP, World Bank, Islamabad (CLTS Group Member)
2. Mr. Irfan Saeed Alrai, Water and Sanitation Specialist, WSP, World Bank, Islamabad (CLTS Group Member)
3. Ms. Tanya Khan, Specialist Social Sector, Rural Support Program Network, Islamabad (CLTS Group Secretary)
4. Mr. Imran Yusuf Shami, Water Environmental Sanitation Advisor, Plan, Islamabad (CLTS Group Member)
5. Ms. Bushra Ghazanfar, Resident Representative, Norwegian Church Aid, Islamabad
6. Dr. Murtaza Malik, Water, Environment and Sanitation Specialist, UNICEF, Islamabad
7. Mr. Douglas Booth, Head of Water, Environment and Sanitation Section, UNICEF, Islamabad
8. Dr. Z. A. Suleri, Head Sustainable Development Policy Institute (SDPI) Islamabad
9. Syed Nasir Mohmood, SDPI, Islamabad
10. Ms. Pamela Rodrigues, Country Representative WaterAid, Islamabad
11. Mr. Abdul Hafeez, Manager Policy & Advocacy, WaterAid, Islamabad
12. Ms. Dr. Sissel Volan, Minister Councilor, Royal Norwegian Embassy, Islamabad

Based on what we had discussed with the participants at the workshop, we had developed an idea for a comprehensive education, research and training program, which we aired with all of the organizations and asked for their input into the design of such a program. The response of these organizations was overwhelmingly positive, and several are ready to send their staff for training, and are eager to receive students in existing projects to start participatory research. In fact, they suggested they become part of a reference group for the program where relevant research topics could be discussed and prioritized. They saw this initiative as a way to combine scarce resources with other organizations and avoid duplication of research efforts as well. While the training components would likely be self sustaining (paid for through participant fees), there is a need to strengthen the education and research components to ensure capacity and quality. The next step is therefore to secure funding for these components through applications to the government, and bilateral and multilateral donors.

**Collaborative Workshop on Participatory Research and Capacity
Building of Institutions in Afghanistan and Pakistan in Sustainable
Sanitation
March 2-4, 2009**

Tentative Workshop Agenda

Day 1– Monday March 2, 2009

Opening Ceremony

09:00	Arrival and Registration
09:35	Qirat
09:40	Welcome by Dr. Bahadar Nawab
09:50	Brief introduction of the participants/organizations
10:05	Introduction of the workshop by Dr. Gry Synnevaag
10:05	Vote of thanks by Dr. Haroon Rashid, Director CIIT Abbottabad
10:20	Refreshments

Day 1– Monday March 2, 2009

Chair: Dr. Gry Synnevaag

Time	Event	Facilitators
11:00-11:10	Introduction to Session	Gry Synnevaag
11:20-12:30	Presentation by the Afghans delegates	Tearfund NCA DACAAR
12:30-13:30	Lunch break	
13:30-13:50	Questions and Discussion	Ingrid Nyborg, Ola Hanserud
13:50-14:30	Presentation by the Afghan delegates	ICARDA Agric Uni. Faryab Faryab Distict Councilors
14:30-15:00	Questions and Discussion	
15:00-15:45	Presentation by the Afghan and Pakistani delegates (10 minute presentations each)	NWDA Min of Environment (Pak),
15:45-16:30	Tea/praying break	
15:30-16:30	Presentations	WSP, IRSP
16:30-17:30	Discussions and summing up of the day	Ingrid Nyborg

16:40-17:30	Closing and summing of the day	Dr. Ingrid Nyborg
18:00	Back to the Hotel	
19:30	Dinner	

Day 2 – Tuesday March 3, 2009

Chair: Dr. Ingrid Nyborg

Time	Event	Facilitators
9:00-10:00	Presentations by Pakistani organizations	PIEDAR, SSD, CWS, PVDP/NCA
10:00-11:00	Group Work: Defining the Challenges (and Tea Break)	4 groups
11:00-12:30	Group presentations and discussion	4 group presentations
12:30-13:30	Lunch break	
13:30-15:00	What can CIIT Abbottabad and Noragric contribute?	Dr Ingrid Nyborg Mr. Ola Hanserud Dr. Bahadar Nawab
15:00-15:30	Tea/Praying Break	
15:30-17:00	Discussion	
19:30	Dinner	

Day- 3 – Wednesday March 4, 2009

Time	Event	Facilitators
9:00-9:15	Introduction of Group Work: Brainstorming on Models of Collaboration	Ingrid Nyborg
9:15-10:30	Group Work: Developing Specific Ideas for Collaboration	
10:30-11:00	Tea Break	
11:00-12:00	Group presentations and summing up discussion	Ingrid Nyborg, Bahadar Nawab, Gy Synnevaag
12:00-13:30	Tour of Campus	
13:30-14:30	Lunch	
14:30-15:30	Closing Ceremony	

Annex II - List of Participants

	Name	Nationality	Designation	Organization	E-mail	Contact Number	Address
1	Dr. Ihsan Ilahi (Days 2&3)	Pakistani	Professor	Karakoram International University	dr.ihsan_ilahi@yahoo.com	0345-9151171	Dept. of Bio Science, Karakoram International university, Gilgit.
2	Ms. Sajida Asghar (Days 2&3)	Pakistani	Lecturer	Karakoram International University	Sajidaasghar82@yahoo.com	0346-9236008 0345-5192024	Dep. Of Bio Science, Karakoram International university, Gilgit.
3	Mian Khalid Jan	Pakistani	DPO	NRSP	miankhalidjan@yahoo.com	0300-9339199	Sheikh Maltoon town, st. 15, house #11, Mardan
4	Ms. Bushra Ghazanfar (Day 2)	Norwegian	Resident Representative	NCA	bushra.ghazanfar@nca.no	0345-8551215	House #52, street # 16, F 11/2 Islamabad
5	Ms. Attiya	Pakistani	Field Coordinator	PVDP	----	0333-5049504	House# 355, st # 4, Jinnahabad, Abbottabad
6	Mr. Waleed Khattak (Days 1&2)	Pakistani	----	Ministry of Environment	waleed.khattak85@gmail.com	0333-4114911	Khattak house near jinnahabad hospital, Jinnahabad, Abbottabad
7	Mr. Ahsan Abbass	Pakistani	Field Engineer WATSAN	Taraqee Foundation	ahsan.abbas77@gmail.com	0333-5058332	House #1 Kaghan Colony, Abbottabad
8	Mr. Iftikhar Hussain	Pakistani	Program Coordinator	WESNET	myifti99@hotmail.com wesnetpsh@yahoo.com	0301-8968274	House # 11, St. #1, Sector H1, Phase 2, Hayatabad, Peshawar
9	Mr. Mohammad Riaz (Days 1&2)	Pakistani	Program Director	Society for Sustainable Development	riaz_ouch2000@yahoo.com	0300-9358135	House #11, street # 1, Phase 2, Hayatabad, Peshawar
10	Mr. Tayyab Shahzad (Day 1)	Pakistani	Director WATSAN/ Landuse Planning specialist	Ministry of Env. Govt. of Pakistan	tshahzad68@yahoo.com	0322-5044595	SLMP, Ministry of Environment, 40 Bazar Road, G-6/4, Islamabad
11	Mr. Zubair Anwar (Days 1&2)	Pakistani	Manager Finance and Advisor	SRSP	hd130uk@yahoo.com	0300-5613264	59/1 PMA Road, Abbottabad
12	Dr. Amir Haider Malik	Pakistani	Professor	CIIT Abbottabad	ahmalik@ciit.net.pk	0300-5811639	Environmental Scs. Department CIIT Abbottabad
13	Mr. Irfan S. Alrai (Days 1&2)	Pakistani	WATSAN Specialist	WSP-World Bank	malrai@worldbank.org	0333-5127512	F. 868, S--- Town, Rawalpindi
14	Mr. Farooq Khan (Day 1)	Pakistani	M.D	NWDA	farooqkhan@hotmail.com	0333-9114781	House #11, St. #1, H-1, Phase 2, Hayatabad Peshawar
15	Mr. SaifUllah Khan	Pakistani	Project Manager	PVDP	saif285@yahoo.com	0333-5049504	House#355, St.# 4, Jinnahabad, Abbottabad
16	Dr. Mohammad Ahmad Farooqui	Pakistani	Professor	CIIT Abbottabad	farooqi@ciit.net.pk	----	CIIT Abbottabad

	Name	Nationality	Designation	Organization	E-mail	Contact Number	Address
17	Ms. Saadia Yaqoob	Pakistani	Assistant Coordinator DMP	CWS-P/A	saadia@cwspa.org.pk	0300-5194613	Street # 7, house # 137, F-11/1, Islamabad
18	Mr. Aman Ali Asad	Pakistani	Hygiene Coordinator	Taraqee Foundation	aliamanasad@yahoo.com	0333-5031375	House # 1, kaghan colony. Mandian, Abbottabad
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20	Eng. Nabi Azaad	Afghan	Program Officer	NCA	nabi.azaad@nca.no	0700-246631	Saraee Ghazni, near Music School, District 3, Kabul Afghanistan
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22	Mr. Ram Parasad Ghimive	Nepalese	Project Manager	Norwegian church in aAghanistan	ram.prasad.ghimive@nca.no	0093-796318172	Kabul Afghanistan
23	Dr. Gry Synnevag	Norwegian	Head of Department	Noragric, UMB	gry.synnevag@umb.no	4741632223	Postbox 5003, 1432 Aas, Norway
24	Dr. Ingrid Nyborg	USA	Associate Professor	Noragric, UMB	ingrid.nyborg@umb.no	4795904751	Postbox 5003, 1432 Aas, Norway
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27	Dr. Iftikhar Raja	Pakistani	HOD Env dept	COMSATS	iaraja@ciit.net.pk	03335081727	
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29	Engg. Shah Wali	Afghan	Manager, Watsan Prog	DACAAR	shahwali@dacaar.org	0093-799212374	Paikob Naswar Wazirabad kabul Afghanistan
30	Mr. Shir.M.Ehsan	Afghan		High Education Faryab	S.Ehsan..@.cam	799274711	Faryab High Education
31	Mr. Bashir Ahmed	Afghan		Faryab pc	bashirahmedtahyanj09@yahoo.com		
32	Mr. Syed Shah Nasir Khisro	Pakistani	Executive Director	IRSP Mardan	director@iropmardan.org	0937-880283 880284	29-A shiekh maloon town Mardan
33	Mr. Shamsuddin siddique	Afghan	M&E ICARDA AFG	ICARDA	s.siddiqi@cgiar.org	93700280130	Hessa Awal karte Parwan, Baharistan bus stop-Hs-No 165 Kabul afg
34	Mr. Ijaz Rasool	Pakistani	Social Mobilizer	PIEDAR	piedar_vehari@hotmail.com	067-3360419	House#216 Tariq Binziad Colony Vehari pakistan
35	Mr. Adam Zahoor	Pakistani	Program Manager	COMSATS Community Development Unit	adam@ciit.net.pk	03335042992	CCDU, COMSATS University, University Road Abbottabad
36	Dr. Shehla Amjad	Pakistani	Professor	Deptt. Of development Studies, CIIT Abbottaabd	shehla@ciit.net.pk		Department of Development Studies, COMSATS Abbottabad
37	Dr. Arjumand Zaidi	Pakistani	Assistant Professor	Deptt. Of Env. Sciences, CIIT Abbottabad	azaidi@ciit.net.pk		Department of Env. Sciences, COMSATS

	Name	Nationality	Designation	Organization	E-mail	Contact Number	Address
							Abbottabad, NWFP, Pakistan
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39	Ms. Absaria Talat Lodhi	Pakistani	Program Officer	COMSATS Community Development Unit	absaria@ciit.net.pk	+92-383592	CCDU, COMSATS University, University Road Abbottabad
40	Mr. Salman M. Naeem	Pakistani	Field coordinator	COMSATS Community Development Unit	salman_awan@ciit.net.pk	03219962331	CCDU, COMSATS University, University Road Abbottabad
41 - 64	23 MS students (12 female and 11 male) of Sustainable Water Sanitation Health and Development	Pakistani	Students	COMSATS Abbottabad	---	---	