SUCCESS

Sindh Union Council and Community Economic Strengthening Support Programme

SUCCESS is funded by the European Union

Assessment of Community Physical Infrastructure Projects

RSPN

NRSP
National Rural Support Programme

TRDP

This assessment has been conducted by Himat Consulting (Private) Limited

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September, 2021

RURAL SUPPORT PROGRAMMES NETWORK

A company set up under section 42 of the Companies Act, 2017

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ACRONYMS

CEO	Chief Executive Officer
CIF	Community Investment Fund
CPI	Community Physical Infrastructure
CRP	Community Resource Person
CDD	Community-Driven Development
COs	Community Organisation
EU	European Union
FGDs	Focus Group Discussions
GoS	Government of Sindh
LSO	Local Support Organisation
MIS	Management Information System
M&E	Monitoring and Evaluation
NFR	Note for Record
OOSC	Out of School Children
O&M	Operations and Management
PSC	Poverty Scorecard
PM	Programme Manager
PMP	Programme Monitoring Plan
Q&A	Question & Answers
RSPs	Rural Support Programmes
RSPN	Rural Support Programmes Network
SRSO	Sindh Rural Support Organization
SUCCESS	Sindh Union Council and Community Economic Strengthening Support Programme
SM	Social Mobilisation
SMT	Social Mobilisation Team
SO	Social Organizer
VOs	Village Organisation
WASH	Water, Sanitation and Health

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HIMATULLAH
CEO, HIMAT Consulting (Private) Limited
Date: September 29, 2021

EXECUTIVE SUMMARY

This report is produced as part of the Assessment of the Community Physical Infrastructure (CPI) schemes, initiated under the Sindh Union Council and Community Economic Strengthening Support (SUCCESS Programme. SUCCESS is funded by the European Union and supported by the Government of Sindh. SUCCESS Programme is being implemented by the Rural Supports Programme Network (RSPN) in partnership with Sindh Rural Support Organisation (SRSO), Thardeep Rural Development Programme (TRDP) and National Rural Support Programme (NRSP). HIMAT Consulting Pvt Limited, an Islamabad-based research and evaluation firm, was contracted for this assessment. The report is organised in a manner that covers the background, objectives and methodology, key findings related to relevance, social and economic impacts of the CPIs on women and target communities and technical assessment of the design of the CPIs. In the final sections, the report provides capacity-building plan, conclusions and key recommendations.

Programme Implementation and Approach: SUCCESS is a seven-year long (2015-2023) programme being implemented by Rural Support Programmes Network (RSPN) in partnership with three Rural Support Programmes (RSPs) in eight rural districts of Sindh; Sindh Rural Support Organization (SRSO) is implementing the programme in Kambar Shahdadkot, and Larkana; Thardeep Rural Development Programme (TRDP) in Dadu and Jamshoro; and National Rural Support Programme (NRSP) in Matiari, Sujawal, Tando Allahyar and Tando Muhammad Khan districts. The specific objective of SUCCESS is to stimulate local Community-Driven Development (CDD) initiatives to reduce poverty in the participating districts, paying particular attention to empowering women. The Programme will lead to increased levels and diversified sources of income for the targeted communities and households.

The Programme follows the proven social mobilisation approach to Community-Driven Development (CDD) as championed by the Rural Support Programmes (RSPs) for decades in Pakistan. One of the key outcomes relates to increased economic and social services and community benefits from upgraded Community Productive Infrastructures (CPIs) and productive assets operated and maintained with community involvement, mainly identified, prioritized and benefiting women.

Purpose and Objectives of the Assessment: As per study terms of references, the objectives of this assessment are four-fold: i) determining the impact (economic and social) of CPI component; ii) assessing the relevance of the CPIs to the needs of the beneficiaries; iii) conducting a technical assessment of the CPIs, and iv) developing a capacity building action plan and implementing it through the RSPs engineers for course correction.

The geographic scope of the assessment includes eight rural districts of Sindh participating in the SUCCESS Programme. The thematic scope was limited to the CPI component of the project. The time duration was from July 1-25, 2021 for field visits and data collection.

The assessment followed the criteria and indicators of relevance as laid out by the OECD-DAC criteria, besides looking at social and economic impact and technical design aspects. Throughout the formulation of tools and conducting data collection and focal group discussions, the consultants gave special consideration to the cross-cutting priorities of gender equality and equity, social protection, and doing no harm principles, including following Covid-19 protocols.

Assessment Design and Methodology: The evaluation employed a mixed methodology of quantitative and qualitative research tools. The qualitative tools applied included; (a) the desk review of relevant documents; (b) semi-structured key informant interviews (KIIs) and focus group discussions (FGDs), with a focus on the relevance of CPIs and the social and economic impact for the programme beneficiaries); and (c) technical assessment of the CPIs by engineers. The qualitative data were supplemented with quantitative data coming from three different streams:

i) the data of CPIs (mostly related to costs and number of beneficiaries) provided by RSPN and RSPs;

ii) The data of economic impact of CPIs collected from the focus groups; and

iii) Data of technical assessment collected by technical assessment team of consultants.

A key limitation of the assessment is its timeliness. Ideally, such impact assessments are conducted after completion of such schemes and a lapse of reasonable time, which was not the case. Therefore, the focus of the current assessment is only on early and short term results and technical assessment of the CPIs completed.

Key Findings

The SUCCESS Programme has, as of January 2021, initiated 1,871 CPI in eight (8) districts and 33 tehsils of the province Sindh. As many as 1,198 schemes have been completed while the remaining CPI schemes are at different stages of competition. These CPI schemes fall into six categories: drainage and sanitation, drinking water supply, irrigation, renewable energy, roads and bridges and others. The key findings of the assessment are presented below.

Relevance

In general the CPIs have been found relevant to the priorities and needs of women as primary beneficiary groups. Moreover, it has also been discovered that women and communities actively participated in the process of CPIs identification. In all the 40 FGDs with 400 respondents (10 women per FGDs), more than 80% participants reported that they were consulted during the process of the identification of schemes. An overwhelming majority of the respondents confirmed consultative process during identification and prioritization of CPI. One of the main reasons behind the strong relevance of the CPIs was the participatory and bottom-up approach which was followed during the process of identification and implementation of the schemes. Community mobilisation has remained the central ingredient of the CPI project cycle. Village Organisations (VOs) were at the heart of it undertaking awareness raising sessions and promoting external linkages with other organisations that have complemented the component of CPIs and produced synergies. Since the involvement of women in the schemes was mandatory, the project was able to create a dent on patriarchal norms and behaviours of men towards women of not allowing them to sit alongside men in public spheres and listening to their views and suggestions. The male members now allowed women to participate in the meetings. The participation of women in the process of identification of CPIs has remained very high.

These findings are endorsed by technical assessment of the CPIs too. During the field, visits by the technical team of engineers validated the VO members who reported that: 1) the only high priority CPI

schemes were identified and included in the village development plans; and 2) the communities held intensive discussions on their priority needs in their formal and informal meetings. Since the CPIs were relevant to the needs of the communities - especially women - and the communities, including women, actively participated in the process of CPI identification, the participation, role and confidence of women in community spheres have increased.

Social Impact

Overall, the social impact of CPI schemes has been rated high by the participants of FGDs in terms of accessibility to social services. For example, access of communities to safe drinking water has improved, sanitation and hygienic conditions have ameliorated and access to education and health facilities and services have increased significantly. As indirect social benefits, the communities have enhanced social cohesion, developed their capacity to take collective decisions and actions including resolving internal conflicts and mobilising local resources for their own development. The women members of different committees played an active role in the planning and implementation of the CPIs. In all cases, the procurement of construction materials was done by the communities themselves without vendors or contractors, following the quality standards as per design specification.

Although female participation was limited in terms of the physical construction of CPIs as they played a secondary role in the brick and mortar work, the confidence they exhibited during FGDs provided evidence of their ability and enthusiasm to participate in such activities. In a number of FDGs, women reported that they had paid visits to the construction sites. Moreover, women have taken local level leadership positions in all the committees formed for the CPIs, thus acting as role models for younger girls. For example, some women reported that they felt truly engaged in the project as they monitored progress, participated in the meetings and cooked meals for the men working in the construction/maintenance of schemes. Some women even reported improvement in their financial literacy as they had cost details of the schemes, the collected funds and were seemed motivated to contribute more as they saw the benefits of the schemes in the end. The COs also took care of the interests of widows and the poor families. For example, the participants of the FGD held at Village Samthani, Dadu told that there were about 600 families living in their village and some families were very poor and they could not afford to build washrooms on their own, the CO built washrooms for 10 families and preference was given to widows and the destitute.

Economic Impact

Overall, the economic return on investment (ROIs) of almost all schemes is high, as reported by the community beneficiaries. The improved services through these CPIs contributed to reducing the household expenditures and improving the earnings as reported by respondents. Even during the COVID-19 pandemic and lock down periods, work on CPIs in rural areas continued, which helped in mitigating the severity of the impact of the restrictions on the livelihood of people, in terms of providing earning opportunities to skilled and unskilled labour. Summary of sector-wise economic impact of CPIs, calculated on the basis of data collected from the focus group discussions, is précised below:

Drinking water supply schemes: The installation of drinking water supply schemes have reduced the burden of fetching water largely and led to reduction in health expenditures, mainly because of decline in diseases and in transport expenditures. For example, women participants of FGDs in Bachu Khaskeli, Jamshoro and village Sujawal Jogi Muhamad, Kambar Shahdadkot reported that they were using the saved time in income generating activities (such as embroidery, sewing clothes) too. In Sujawal, the average

annual cumulative gains per drinking water supply scheme range from PKR 0.98 million to PKR 9.23 million (in the case of Jamshoro). Similarly, yielding return on investment (ROI) ranged from 6.71, in the case of Dadu, to 19.30, in the case of Kambar Shahdadkot.

Drainage and sanitation schemes: The estimated amount of savings gained through the reduction in medical expenditures of beneficiaries of drainage and sanitation schemes range from PKR 300,000 in case of Sujawal to PKR 714,000 in Kambar Shahdadkot. While the ROI of these schemes varies from 71% in Dadu to 185% in Tando Allahyar.

Roads and bridges: The value of the time saving for beneficiary communities range from PKR 301,042 as in the case of Tando Allahyar to PKR 952,500 as in the case of Sujawal. These saving alone are equivalent to one third of the average cost of CPIs in the case of Larkana to almost twice the average cost of CPIs in the case of Sujawal. Besides, the CPIs have also lowered down transportation costs for travel to and from the markets and the work places.

Irrigation schemes: The irrigation schemes have helped farmers to increase crop yield, improved cropping intensity and brought more area under cultivation. The average yields of wheat and rice crops have increased by 5.5 maunds/acre and 2.5 maunds/acre, respectively. Eventually, the annual income of each of beneficiary household/irrigation scheme has increased by PKR 27,157.

Alternate energy: The average annual total economic gains of the beneficiary communities are estimated at PKR 1.94 million which is more than twice of the average investment made by the project on the two schemes i.e. PKR 0.82 million.

Technical Assessment

The technical assessment team found that the CPI schemes were well designed in general. About 97% of the CPI schemes visited were found functional and the actual specifications matched with designed specifications. However, there were some gaps identified including, limited compaction of the earth filling in the case of street pavement, no proper mechanism for disposing off waste water in the case of drinking water and in one case a water tank was found defective. Besides, there was no provision of running water in the design of sanitation CPI schemes. No hand washing facility was attached with any toilet. In some cases the quality of the bricks used was very poor. In the case, of some drainage CPIs, it was found that human waste was polluting environment and contaminating the lands, putting human lives at risk.

In terms of project management and technical support from RSPs, it was encouraging to note that throughout the FGDs, most women participants were aware of the committees formed and their functions and performance at the village level, like: (i) monitoring, (ii) procurement, (iii) audit, and (iv) Operation and Maintenance (O&M). All women confirmed that the staff of RSPs visited their CPI schemes, 4-5 times during the construction phase in order to check the progress and provide technical support to the skilled people working at the construction sites. These visits were made as it was agreed with RSPs and the community that women should visit the schemes to check the physical progress and timely completion of the schemes.

Maintenance committees existed in all the cases. NRSP, SRSO have already encouraged VOs to deposit funds for O&M which are deposited in the banks. The RSPs have not trained the communities in the O&M of CPIs; however the villagers themselves on need basis timely repair minor damages. In order to ensure smooth operation and timely major repairs, the VOs need to devise a proper mechanism in this regard.

Conclusion and Recommendations

In a feudal rural setup such as in Pakistan and more so in the province of Sindh, rural women's participation in public sphere, women organizations and taking leadership roles at community levels is a great contribution of the SUCCESS Programme and RSPs. The women-only organisations and women-driven approach, has demonstrated that women were fully involved in the whole project cycle of the CPIs as observed through field visits, project technical assessments and reported by the FGDs with women members. Despite, the structural patriarchal challenges and initial resistance to the participation of women in development activities, men got sensitised about the importance and need of women participation in the development process through engaging men as well as implementing schemes identified by women with demonstrated benefits to all and continued social mobilisation efforts.

Since behavioural change involves a long-term process and needs consistent efforts, putting women first through a combination of schemes identified and prioritized by women and continued investments in building the capacities of VOs in advocacy and communication is important, so that they are able to consolidate gains and can explore opportunities with other organisations to satisfy their needs.

It is also important to take inclusive approaches in designing and prioritising CPIs, ensuring that such schemes are accessible to Persons-with Disabilities (PWDs). For the sustainability of the CPIs, the VOs may consider introducing monthly user fee for many of the schemes there is potential that people are willing to pay however, small or nominal to start with. It is also recommended that during the course of the hands-on training of field engineers, which is the fourth objective of this assignment, the issue of O&M of CPIs should be discussed thoroughly to devise a standard operating procedure and local mechanisms for ensuring the operations & maintenance of the CPIs by the VOs and COs themselves.

1. INTRODUCTION

1. INTRODUCTION

1.1. Background

The Rural Support Programmes Network (RSPN) is an umbrella network of nine Rural Support Programmes (RSPs) in Pakistan.[1] RSPN was created in July 2000 with the objectives of strategic coordination between RSPs, providing capacity building support, strengthening communications and knowledge management, undertaking policy advocacy to promote RSPs' approach to community driven development (CDD), undertaking new initiatives for replication by RSPs and to mobilise resources for RSPs.

All of the RSPs share a common philosophy that there is tremendous potential in the poor communities which needs to be harnessed so that they can plan and manage their resources more efficiently and effectively. In order to catalyse this potential, the poor need a mechanism to get social guidance, appropriate technical, managerial skills and adequate financial support to help themselves. The core strategy is grounded in the belief is that the poor communities need to be organized through fostering and strengthening 'organisations of the people', to take the responsibilities of planning and taking actions to improve their wellbeing at three levels, including household level, neighbourhood/ village level and Union Council levels.

The member RSPs follow the core values of three-tier social organisation approach to CDD. The RSPs facilitate community households to foster Community Organisations (COs) – separately for men and women, Village Organisations (VOs) and Local Support Organisations (LSOs). The RSPs provide financial and technical support to these grass-root organisations so that they plan, implement, operate and maintain community interventions that directly influence the lives of the communities and the disadvantaged people.

1.2. The SUCCESS Programme

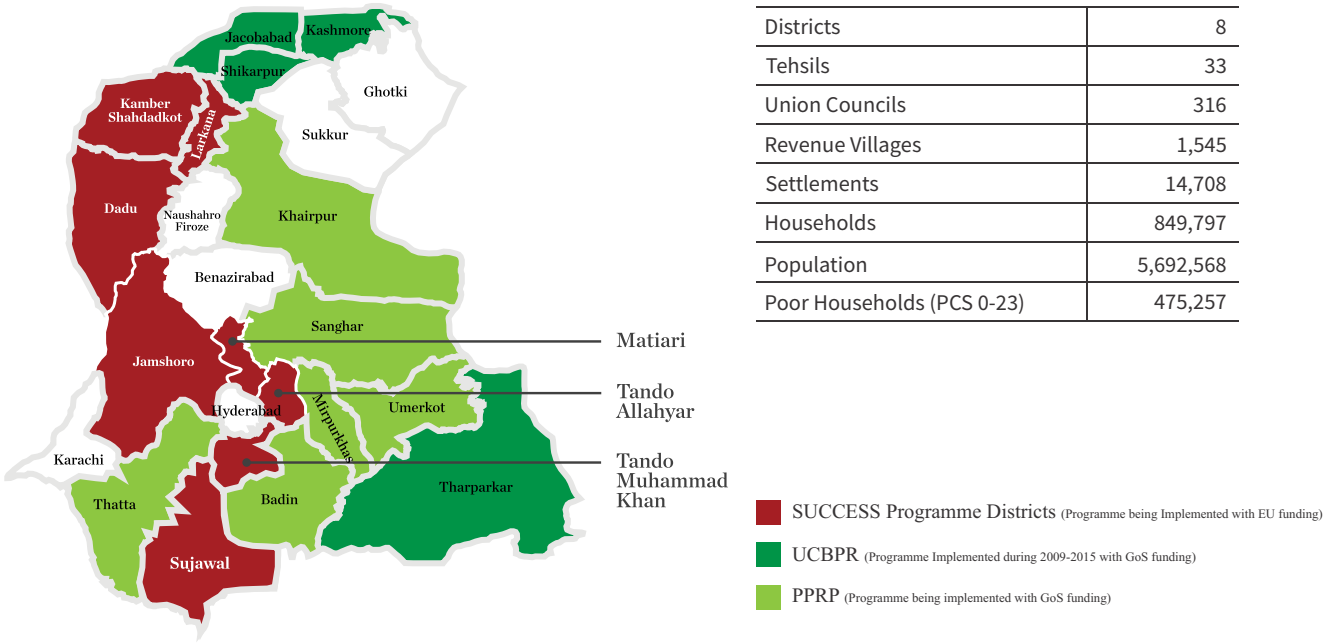
With the technical and financial support of European Union and Government of Sindh, RSPN and three of its members, i.e. NRSP, SRSO and TRDP are implementing the Sindh Union Council and Community Economic Strengthening Support (SUCCESS) Programme in eight districts of the Sindh province, namely Kambar Shahdadkot, Larkana, Dadu, Jamshoro, Matiari, Sujawal, Tando Allahyar, and Tando Muhammad Khan (see Figure 1 showing map of the districts of the Sindh province).The aim of the Programme is to support the government of Sindh in reducing poverty in the target communities through undertaking Community Driven Development (CDD) based on RSPs' proven social mobilisation approach. The programme is expected to improve the living conditions of the target population by building local social capital for better access to basic social, economic services, income generating and diversification activities and empowering rural women.

[1] The network includes; the Aga Khan Rural Programme (AKRSP), Sarhad Rural Support Programme (SRSP), National Rural Support Programme(NRSP), Ghazi Barotha Taraqiati Idara (GBTI), Thardeep Rural Development Programme (TRDP), Balochistan Rural Support Programme (BRSP), Sindh Graduates Association (SGA), Sindh Rural Support Organization (SRSO) and the Institute of Rural Management (IRM)

The SUCCESS programme strengthens the efforts of the Government of Sindh and People's Poverty Reduction Programme (PPRP) to alleviate poverty in the province through multiple interventions especially developing the capacity of communities and building community infrastructures.

Components: The main components of the programme are: 1) Social Mobilisation (formation of women only community institutions); 2) Community Investment Fund (CIF); 3) Income Generating Grants (IGG); 4) Micro Health Insurance (MHI); 5) Technical and Vocational Skills Training (TVST); 6) Community Physical Infrastructure (CPI) projects; 7) Adult Literacy and Numeracy Skills (ALNS) training for women; (8) Raising community awareness about crosscutting theses, e.g. education, health, nutrition, disaster risk reduction, etc., and (9) Fostering linkages with the local government stakeholders through the Joint Development Committees (JDCs) headed by the Deputy Commissioners at district level.

So far, 600,170 households have benefited from Social Mobilisation, 98,507 households from Community Investment Fund, 39,700 households from Income Generating Grants, 137,344 households from Micro Health Insurance, 24,606 households from Technical and Vocational Skills Training and 94,583 Community Physical Infrastructures.



Districts	8
Tehsils	33
Union Councils	316
Revenue Villages	1,545
Settlements	14,708
Households	849,797
Population	5,692,568
Poor Households (PCS 0-23)	475,257

Figure 1. Map of the SUCCESS Programme Area

CPI – a component of SUCCESS Programme is meant to create and improve community level infrastructures and productive assets for the targeted communities, enabling them to meet their basic needs and gain better access to public services.

As of January 2021, in total 1,871 CPI schemes have been initiated, out of which 1,198 schemes have been completed while the remaining CPI schemes are at different stages of completion. All of these schemes have been identified and implemented by VOs. These CPI schemes can be grouped into six categories: drainage and sanitation, drinking water supply, irrigation, renewable energy, roads and bridges and others (see details in Table A).

The CPI schemes after the completion are being operated and maintained by the VOs. Hence, the participation of communities in the process of identification, implementation, operation and maintenance of the CPIs are expected to create community ownership and build their capacity to implement small community level infrastructures.

Table A. Number of CPI schemes by category and status of completion as of June 30, 2021

Types of CPI	Schemes in number			Percentage of schemes completed	
	Total	Completed	Ongoing	Completed	Ongoing
Drainage and Sanitation	375	241	134	64%	36%
Drinking Water Supply	291	198	93	68%	32%
Irrigation	32	22	10	69%	31%
Renewable Energy	48	14	34	29%	71%
Roads and Bridges	1120	721	399	64%	36%
Other	5	2	3	40%	60%
Total	**1871**	**1198**	**673**	**64%**	**36%**

1.3. An Overview of RSPs Strategy of Managing CPIs

The main objective of the CPI schemes is to contribute to the Government of Sindh's efforts of poverty reduction through increasing community assets and capacitating and empowering communities. The process of building CPIs involves following key processes:

- An intensive and a systematic process of social mobilisation and development occupy a pivotal position to capacitate communities for undertaking development interventions. The community institutions which comes out of the process of social mobilisation include COs at hamlet level, VOs at the village level and LSOs at the Union Council level. Social Organisers (SOs) of RSPs play a key role in the process of social mobilisation and formation of the community institutions.
- SOs facilitate the VOs to carry out need assessment exercises, which enable the VO members to identify their infrastructure needs and prioritise them. Once a VO has developed a consensus on a specific need, its members pass a resolution seeking technical and financial assistance from the concerned RSP. The community shows a willingness to contribute to the total cost of the CPI usually in-kind, in the form of land, labour, materials and/or cash. The priority needs are reflected in the village development plan prepared by the VO.
- Upon receiving a resolution from a VO the concerned RSP constitutes and deploys a team of two members (i.e. an engineer and a SO) to conduct feasibility survey of the scheme proposed by the VO to serve their high priority need, covering technical and social aspects, and prepare cost estimates of the scheme. The knowledgeable people of the village support the team (consisting of engineer and SO) in carrying out the survey.
- The design, drawings and cost estimates are prepared by the field engineer and submitted to the district engineer for quality check after which they are submitted to the management of the concerned RSP. The RSP management reviews each proposal and approves the CPI schemes, which are deemed relevant and feasible.

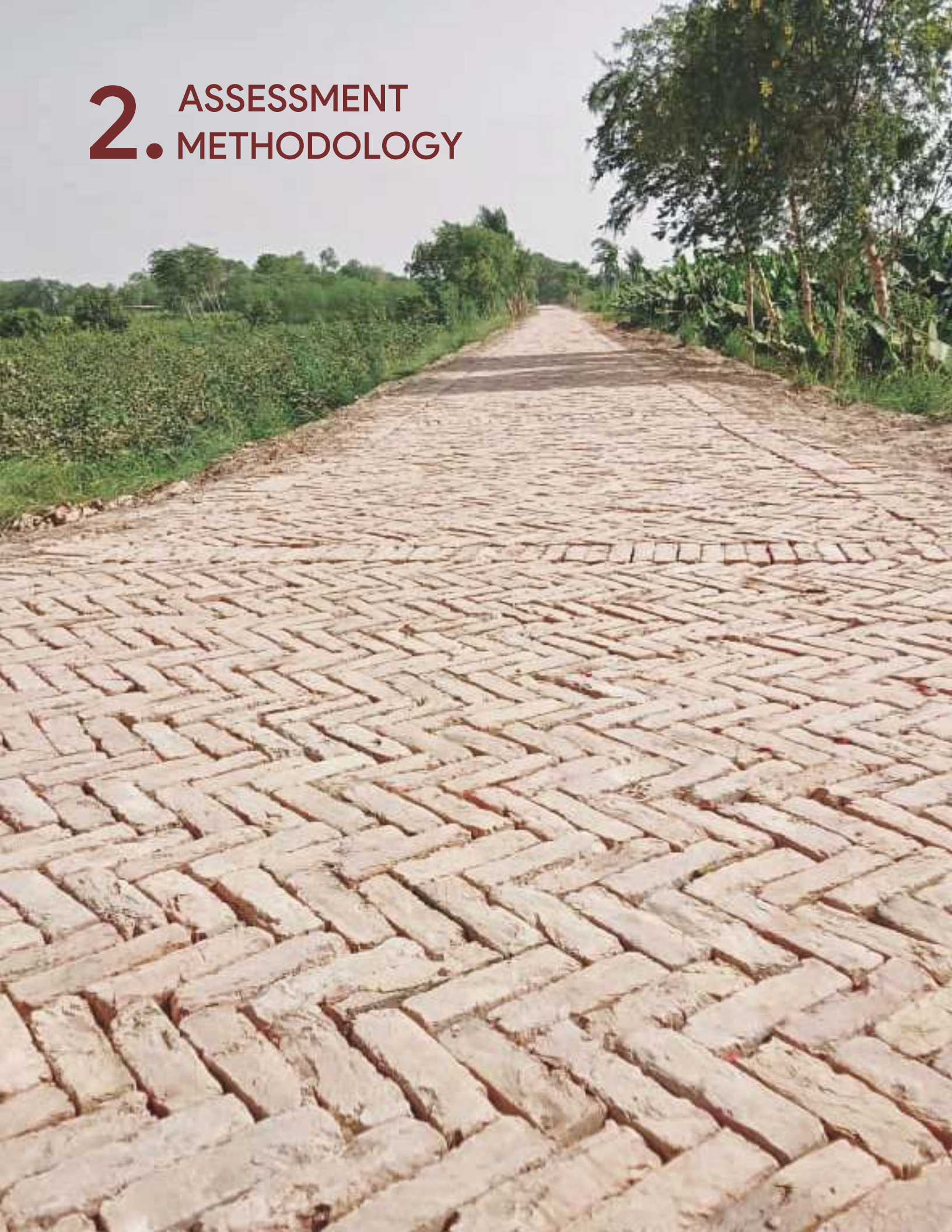
- The process of approval is followed by the signing of a Terms of Partnership (ToP) between the CO and the RSP. With the signing of ToP, VO takes the charge and responsibility of the implementation and maintenance of the CPI. The VO forms three committees to assume these roles: 1) a project implementation committee; 2) a project audit committee; and 3) a project maintenance committee. These committees remain accountable to the CO. The role of the RSP shrinks to only providing technical and financial support and performing technical oversight.
- The RSPs not only provide grants to VOs and LSO but also facilitate the VOs in a number of other ways. They assist the VOs in developing linkages with the relevant government departments, donors, and other organisations for securing different types of support, especially technical and financial support. Besides, they provide financial support to individuals from the Community Investment Fund managed by Local Support organisations.

1.4. Objectives of the Study

The overall objective of this study is to conduct an assessment of the CPI component of the SUCCESS Programme. The specific objectives of this assessment are as under:

1. To assess the immediate (financial, economic and social) impact of CPIs implemented by the SUCCESS Programme as part of their social mobilisation approach to improve rural livelihoods and empower women.
2. To assess the relevance of the CPI component to the needs of communities, especially women.
3. To conduct technical assessment of the quality of CPI construction and maintenance of the schemes within the context of the capacity of local communities to identify, implement and maintain these CPIs.
4. Based on the technical assessment (objective 3), provide technical support to the RSPs' engineers to improve the quality of existing and future projects.

2. ASSESSMENT METHODOLOGY



2. ASSESSMENT METHODOLOGY

The first three objectives of the assessment cover three aspects of the Programme: impact of the CPIs, relevance of the CPIs to the needs of the target beneficiaries and the quality of construction and operation and maintenance of the CPIs. Since the study required an in-depth assessment, hence, we followed a mixed methods approach. Review of secondary data/literature review, conducting FGDs and KIIs as well as technical assessment of sampled CPIs were conducted. A brief methodology applied for achieving these objectives is described below:

2.1. Review of Literature

The assessment team reviewed all available programme documents and data provided by the SUCCESS team and the documents accessed from the programme website (https://success.org.pk/). The review of the documents has provided input in understanding the context, developing sampling strategy and designing data collection tools. The literature reviewed for this assessment included:

1. Project Proposal Documents
2. External Performance Monitoring Mission reports
3. List of CPI by location, by RSPs
4. CPI files
5. The terms of partnership document.
6. Manuals and guidelines of RSPs
7. Past reports of the mission, donors, and senior management
8. CPI database provided by the RSPs

2.2. Sampling Strategy

Since in-depth assessment was needed and the CPIs were diverse in terms of category, the stage of completion, geographical locations and implementation team, the study followed a sampling design (covering sample size and sampling technique) keeping in view the requirement that technical, social, financial and economic aspects of the CPI scheme can be adequately assessed.

2.2.1. Sample Size

Keeping in view the parameters given in Box 1, the assessment team estimated the required sample size using online calculator available at http://www.raosoft.com/samplesize.html.

Box 1. Parameters of sample size

1871 Total CPI in Numbers CPIs
1198 (64%) Completed CPIs
673 (36%) Ongoing CPIs
95% Confidence level
10% Margin of error

The online calculator suggested a sample size of 92 based on the above parameters. Applying 10% adjustment factor to take into account non-response and other risk factors, the sample size was increased to 101. The estimated sample size was distributed among the completed and ongoing schemes in the ratio of their share in the total number of schemes. Hence, 65 completed CPIs and 36 ongoing CPIs were included in the sample. The proportional distribution of the sample size among districts and categories of CPIs is shown in Table B. The categories of CPIs included roads and bridges, drinking water supply, irrigation, renewable energy, and drainage and sanitation.

2.2.2. Sampling Technique

Simple random sampling technique was applied to select samples from the completed schemes and from the ongoing schemes. The list of sampled CPIs finalised after consulting the respective implementing partners, is given at Annex A.

Table B. Estimated sample size – distributed among districts and CPI categories

	Dadu	Jamshoro	Kambar Shahdadkot	Larkana	Matiari	Sujawal	Tando (TAY) Allahyar	Tando Muhamad Khan (TMK)	Total
Completed									
Drainage and Sanitation	4	1	5	1	1		1	1	14
Drinking Water Supply	2	3	1			3		1	10
Irrigation				1					1
Renewable Energy		1							1
Roads and Bridges	7	2	5	8	5	3	4	5	39
Sub-total	13	7	11	10	6	6	5	7	65
Ongoing									
Drainage and Sanitation	2	1	2				1	1	7
Drinking Water Supply	2	3				1			6
Irrigation									0
Renewable Energy						2			2
Roads and Bridges	3	1	4	3	3	1	3	3	21
Sub-total	7	5	6	3	3	4	4	4	36
Total	**20**	**12**	**17**	**13**	**9**	**10**	**9**	**11**	**101**

2.3. Data Collection Team

The core team (team leader, engineer, and gender specialist) with the support of associate engineers and female field researchers led the activity of data collection. The female field researchers, who were from the respective programme districts, helped facilitate the process of data collection and provided contextual information. Besides, HCPL backup support team remained readily available to provide backstopping, technical assistance, and troubleshooting support to the core team as and when needed.

2.4. Data Collection Tools

Three types of data collection tools were developed which were used to collect data: 1) checklists; 2) FGD tools; and 3) KII tools, as briefly described below:

- Engineering assessment tool/checklists (one separate for each sector) were used for technical assessment of schemes.
- FGD tools included a guide for conducting discussion with VO members and with field teams of implementing partners.
- Key Informant Interview (KII) guides were used for holding interviews of the management of the RSPN and the partner RSPs.

The relevance of these tools to the study objectives is shown in Table C.

Table C. Relationship between tools and study objectives

Data collection tool	Annex	Objectives			
	Annex	01. Immediate impact	02. Relevance	03. Technical assessment of CPIs	04. Technical support
FGD Guide for VO members	Annex C	✓	✓		
FGD Guide for field teams of RSPs	Annex D	✓	✓	✓	✓
KII Guide for programme managers	Annex E	✓	✓	✓	✓
KII Guide for CPI coordinator	Annex F			✓	✓
Checklist for technical assessment	Annex G			✓	✓

The tools were shared with the focal person at RSPN, along with the inception report and were updated based on their feedback. The FGD tools were translated into Sindhi language to facilitate the process of data collection. Moreover, the tools were pre-tested before their actual administration based on the findings of the pre-testing, the tools were updated.

2.5. Orientation for the Data Collection Team

A One-day orientation workshop was held with the entire core and backup support team of HCPL. The team leader, expert engineer, gender expert and economist briefed the entire team on each and every question given in FGD and KII guides. The orientation session also covered data collection process and ethical protocols including covid-19 protocols. The team leader ensured that team members understood the essence of the questions given in the data collection tools.

2.6. Data Collection Process

FGDs were conducted with sampled project beneficiaries and selected RSPs field team members including Social Organisers, Field Engineers and M&E Officers. Moreover, Key Informant Interviews (KIIs) were conducted with Programme Managers and Engineering Coordinators of all three RSP partners. The process of data collection slightly varied from objective to objective, as briefly described below:

Impact Assessment (Objective 1): Impact assessment was carried out by using CPIs data available with RSPN and by conducting FGDs with the VOs and beneficiaries. The impact assessment exercise covered financial, economic and social aspects of the completed CPIs. Indicators of impact assessment were identified for each type of CPI separately. The indicators were updated based on the findings of pre-testing of the tools.

Relevance (Objective 2): The relevance of the CPI component to the needs of local communities especially women was assessed by using FGDs with programme beneficiaries and discussions with community members during visits to CPIs for physical verification. The tool used for assessing relevance is detailed in the later section of this report and mapped in Table C.

Technical Assessment (Objective 3): The methods of technical assessment included site visits, discussions with project beneficiaries and review of project records. In total 101 CPIs were assessed (see sampling size calculations given above). Apart from gathering essential CPI details, the assessment process covered comparison (actual against plans) of specifications, costs, the process followed in the identification of CPIs, surveys, cost estimations, proposal development, partnership agreement, and the whole programme, quality mapping of CPI site inclusive of key structures of CPI. The assessment team also looked at the initial data collected during the surveys for designing. The data mainly included: water source/s characteristics and hydrological and topographical plan of the irrigated and un-irrigated areas, power supply specifications, in case of lifting ground water; and meteorological data on precipitation, temperature, and air moisture, where needed.

The technical assessment specifically focused on assessing (a) appropriateness of technical design given the varied ground realities and compliance with approved technical design, (b) comparison of scheme design specifications and actual specification implemented, (c) functionality and maintenance mechanisms of the CPIs, and (d) adherence to community participatory implementation and maintenance approach, approved timelines and approved budget.

The assessment focused on four essentials. The first part looked at the standards and specifications reflected in the approved manuals and project digest of RSPs and the national standards and universally accepted specifications for projects around irrigation, roads and bridges, drainages and sanitation, water supplies and renewable energy. The team leader and expert civil engineer reviewed literature - RSPs manuals, thematic standards and practices at national and universally accepted specifications and designs with respect to small scale projects such as CPIs implemented by RSPs. The assessment team reviewed the CPI proposals/files of sample CPIs including water supply, roads, bridges, drainage and sanitation and renewable CPIs and undertake field visits to carry out physical verification through measurements of physical work done on the sampled CPIs.

The assessment also covered operation and maintenance (sustainability) aspects of the completed CPIs. During the field visit, the assessment team verified if operation and maintenance obligations were discussed right from the needs assessment time to the date of assessment. The assessment team discussed this vital part of the CPI cycle during the meetings with RSP staff and beneficiary VO members

and members of various committees including construction committees formed for different tasks. The minute's books of the VOs were checked to see if operation and maintenance responsibility of the CPIs were discussed and there was practical demonstration of this important function. This was verified if the VO had opened bank account in the name of the CPI and the VO has made decisions on fixation and collection of user fees or tariff. The assessment team also verified if the VO had hired staff for operation and maintenance of CPI and checked the salary or other reward and remuneration structures for the staff hired for such purpose. The assessment team also looked at what types of orientations and trainings had been conducted for the VO members and operation and maintenance staff. Besides, the team assessed the training needs for VO members in the management of CPI operations and technical matters as well. During the field visits physical conditions of the CPIs were also assessed and the status of functionality was recorded. The tool used in technical assessment is detailed in the later section of this report and mapped in Table C.

Core team ensured the quality of the data completeness, consistency and accuracy. Core team reviewed all data collected by field teams.

2.7. Data Analysis and Report Writing

Data analysis plan was developed and shared with the RSPN for their review and feedback. The plan was revised based on their feedback. Quantitative data were analysed with MS Excel and SPSS while qualitative data (collected through FGDs, KIIs and checklists) were analysed with NVivo.

2.8. Limitation of the Study

A key point which must be kept into consideration is that the benefits of CPIs are often realised years after their completion. Hence, ideally the impact assessment should have been carried out only after a reasonable time had lapsed after the completion of CPIs. Therefore, the focus of the assessment is on immediate benefits of CPIs.

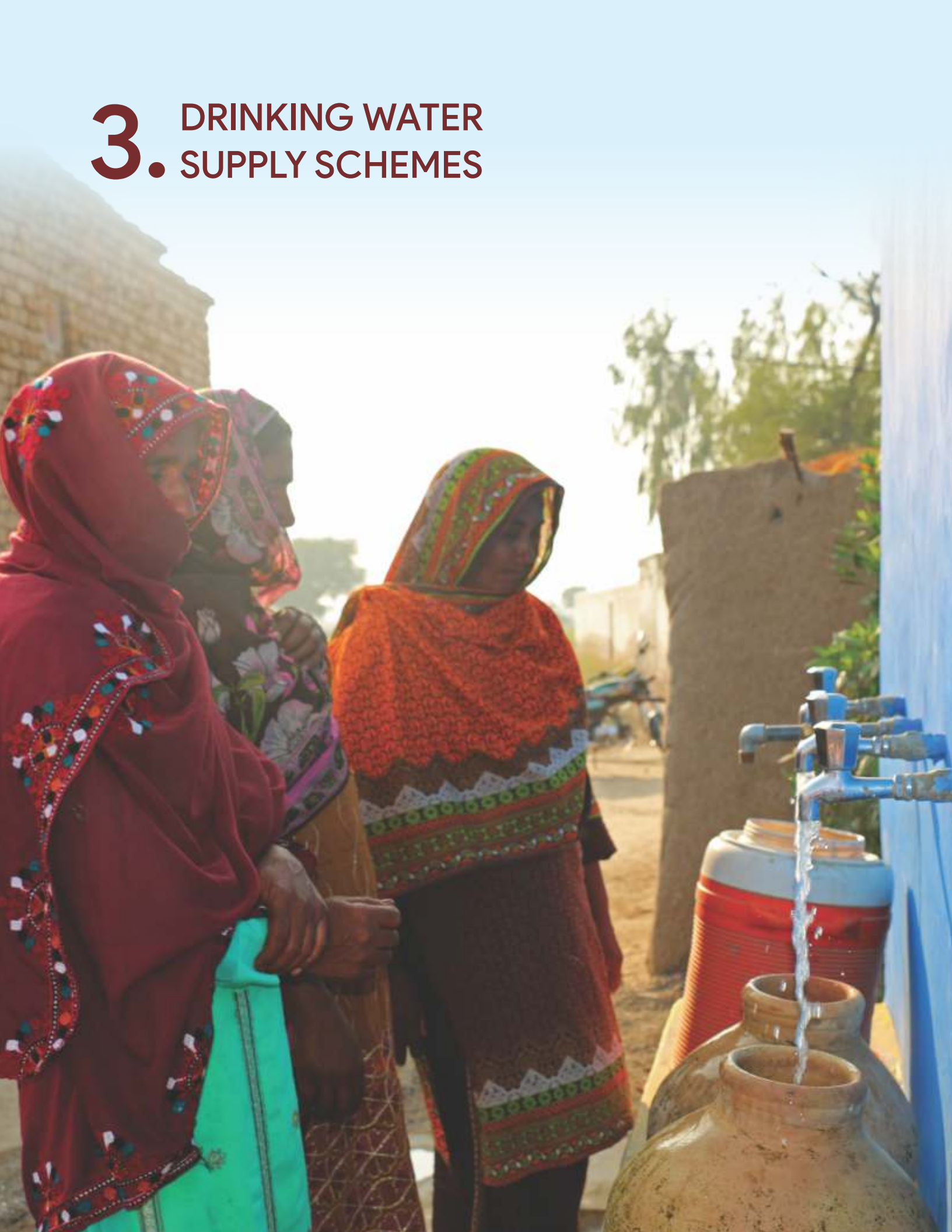
2.9. Organisation of the Report

The report is organised as follows. The introduction and methodology sections are followed by seven sections out of which five sections contain findings of the study. One section is dedicated to each category of CPI. The second last section contains overall consolidated findings and the last section presents conclusions of the study and recommendations.

2.10. Capacity Building Plan

Based on the findings of the assessment report, HCPL has prepared a three month's capacity building cum supportive supervision action plan to implement the recommendations based on technical assessment and recommendations coming from the SUCCESS monitoring process. The action plan will be finalised in consultation with the implementing partner RSPs and SUCCESS Programme team. Once the plan is approved, the expert civil engineer and design engineer will conduct technical sessions with engineering teams of the RSPs to improve technical design, gaps in implementing process, documentation and prepare mitigation plan for future CPI schemes to be implemented by the SUCCESS programme. The designing and execution of sessions will be supervised by the Team Leader of HCPL.

3. DRINKING WATER SUPPLY SCHEMES



3. DRINKING WATER SUPPLY SCHEMES

3.1. Overview of CPIs

The drinking water supply CPIs included simple hand pumps, water pipes, wells, water reservoirs etc. A total of 278 drinking water supply schemes (DWSS) have been launched in the programme districts, of which two-third (67%) have been completed. DWSS are heavily concentrated in Jamshoro and Sujawal districts. One can easily infer from this pattern that that drinking water was a high priority need in these districts. These CPI schemes will benefit more than 24,000 households, with average cost of PKR 4,336 per household. In other words, an investment of PKR 4,336 has been made to provide drinking water supply to one household.

The average cost of schemes per beneficiary household varies significantly from district to district. It is the lowest in Larkana (PKR 3,150) and highest in Tando Allahyar (PKR 7,489). However, the CPIs of Tando Allahyar are fewer in number (i.e. only two); hence, we may treat Tando Allahyar schemes as outliers. Excluding the schemes of Tando Allahyar, cost across the other districts where drinking water supply schemes were launched do not vary much (see Figure 2). Variation in the cost of drinking water supply schemes, especially hand pumps is mainly attributed to geographical and topographic factors such as depth of water table, distance from the city, availability and cost of transport facility etc. In remote location, cost tends to increase.

Table 1 . Overview of district-wise drinking water supply schemes

	Dadu	Jamshoro	Kambar Shahdadkot	Larkana	Sujawal	Tando Allahyar	Tando M. Khan	Total
No of scheme initiated	50	105	16	9	70	3	25	278
No of scheme completed	24	59	15	8	58	2	21	187
No. of beneficiary HHs	4,192	12,035	1,625	904	3,531	90	1,732	24,109
Average HHs/CPI	84	115	102	100	50	30	69	87
Cost of schemes (PKR m)	19.59	50.02	5.45	2.85	18.43	0.67	7.52	104.53
Average cost/CPI (PKR)	391,710	476,361	340,840	316,449	263,286	224,667	300,800	376,003
Average cost/HH (PKR)	4,672	4,156	3,356	3,150	5,219	7,489	4,342	4,336

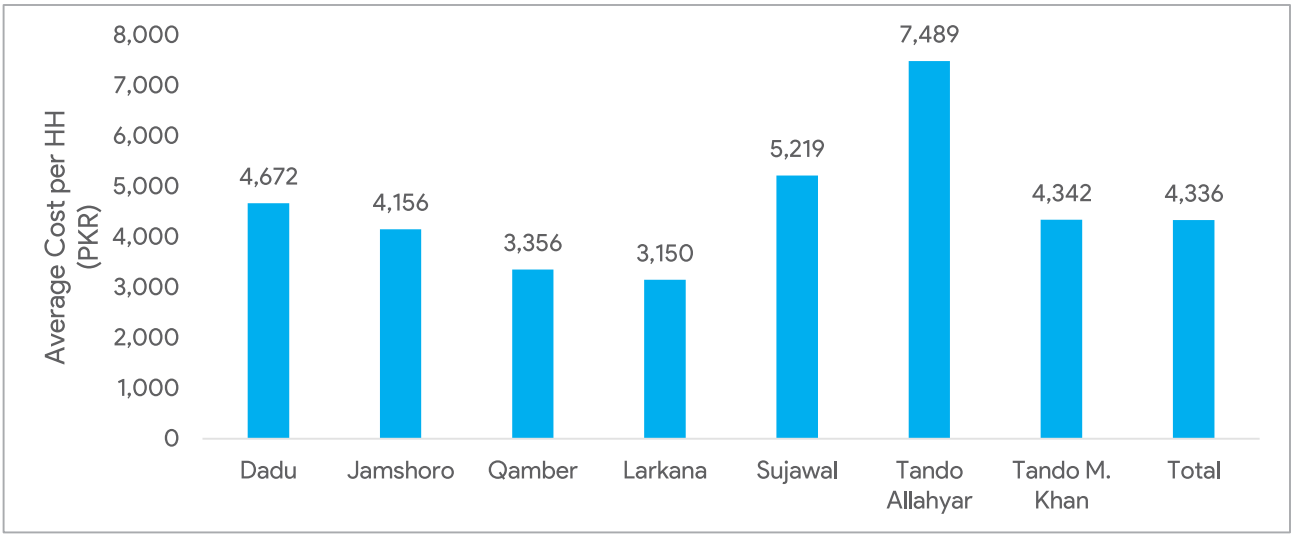


Figure 2. Average cost of CPIs per household beneficiary

3.2. Relevance of CPIs

Relevance with the global agenda of development: Clean drinking water is essential to the realisation of human rights, as per the resolution of the United Nations (UN) General Assembly passed on 28 July 2010[2]. In view of its importance given to the provision of access to clean drinking water, this has been included in the Sustainable Development Goals (SDGs) of the UN. SDG 6 is about "clean water and sanitation for all". It is pertinent to point out that the target 6.1 of SDG 6 calls for universal and equitable access to safe and affordable drinking water. Since the DWSSs under the SUCCESS Programme have installed hand pumps near houses of the intended beneficiaries, making progress toward equitable and affordable access of drinking water.

Relevance with the government vision: The drinking water supply schemes are also aligned with the long term vision of the federal government too. The Pakistan's Vision 2025 highlights the need of improved drinking water as follows:

> "Water contamination and poor water quality have a direct and very significant impact on the nation's health – with water borne infections accounting for 70% of all common diseases impacting our national health. Providing access to safe drinking water and basic sanitation are critical for promoting health."

[2] https://www.un.org/waterforlifedecade/human_right_to_water.shtml#:~:text=On%2028%20July%202010%2C%20through,realisation%20of%20all%20human%20rights.

Relevance with Sindh:

Access to drinking water in rural areas of Sindh (67.6%) is on lower side as compared to that in urban areas (73.7%), as reported in the Pakistan Social And Living Standards Measurement 2018-19 (PSLM 2018-19)[3]. Another issue lies in the quality of water. Major contaminants in Sindh, as reported by studies, are bacteria (69% of samples), arsenic (24%), nitrate (14%) and fluoride (5%)[4]. National Nutrition Survey 2018 (NNS 2018) has endorsed the presence of these issues with the quality of water[5].

It is pertinent to highlight that most of the water supply schemes are concentrated in Jamshoro and Sujawal districts (see Table 1). Since the schemes were identified by the communities themselves, hence, it reflects the relative relevance of the need of the water supply schemes.

Relevance with the needs of target beneficiaries: Discussions with focus groups indicated that the CPI schemes of drinking water supply were relevant to the needs of the target groups of beneficiaries. The participants of the FDGs rate the relevance of the schemes to the needs of women as very high. The women participants of the FGDs in all districts mentioned that they had previously been facing difficulties in collecting water. Earlier (i.e. prior to the schemes), as reported by the participants of the FDGs, women had to spend a lot of time in collecting water from other places on daily basis. A community member of village Sujawal Jogi Muhamad, Kambar Shahdadkot said, *"my frustration used to cross all limits whenever my pitcher filled with water slipped out of my hands and got broken at a place when my home was few yards away"*.

The process of need identification adopted by the community institutions including COs and VOs further established the relevance of the CPIs of DWSS to meet the priority needs of the village people. A majority of the participants from all districts where DWSS were launched indicated that needs assessment exercises were carried out prior to the designing and implementation of the schemes. The village people told that the CPI schemes were identified through a participatory process, involving the application of democratic values. It is pertinent to point out that all of the participants of all FGDs reported that they had been involved in the process of identification of the CPI schemes.

Based on the available evidence, the assessment team can report with confidence that the DWSSs initiated by the communities under the SUCCESS Programme were relevant to the needs of the respective communities.

[3] https://cleangreen.gov.pk/assets/reports/key-report/1658966720.pdf

[4] Bhutto, S. U. A., Ma, S., & Bhutto, M. U. A. (2019). Water quality assessment in Sindh, Pakistan: A review. Open Acc. J. Environ. Soil Sci, 3, 296-302. Available at https://lupinepublishers.com/environmental-soil-science-journal/fulltext/water-quality-assessment-in-sindh-pakistan-a-review.ID.000156.php#:~:text=Quality%20of%20drinking%20water%20in,like%20other%20provinces%20of%20Pakistan.&text=Several%20studies%20have%20documented%20that,%25%20nitrate%20and%205%25%20fluoride.

[5] https://cleangreen.gov.pk/assets/reports/key-report/1658966720.pdf

3.3. Technical Assessment

According to the sample of the study, the technical team assessed 12 completed and 7 ongoing CPI schemes. Table 2 provides details of Water Supply CPI by district both for completed and under-construction sampled CPIs.

Table 2. Completion status of the sampled drinking water supply schemes

	Dadu	Jamshoro	Kambar Shahdadkot	Larkana	Sujawal	Tando Allahyar	Tando M. Khan	Grand Total
Completed	2	4	1	1	1	1	2	12
Ongoing	2	0	2	0	2	0	1	7
Total	**4**	**4**	**3**	**1**	**3**	**2**	**3**	**19**

3.3.1. Implementation

3.3.1.1. Designed Vs Actual Specification

The technical experts of this study found that the quantity of water, diameter of the suction and delivery pipes were the same as mentioned in the design documents. See details in Table 3. The community members in all cases of CPIs of drinking water supply reported that water quality were tested from certified laboratories and the water were found safe for drinking purposes. However, additions to the designs have been made to accommodate the recommendations of the external performance monitoring team such as adding an access ramp to hand pump schemes. Here it is clarified that the assessment team didn't verify the lab reports, available with RSPs.

Table 3. Drinking water supply schemes – designed vs actual specifications

	Pipe length	Pipe diameter	Dug well depth	Dug well diameter	No. of households
Design (ft)	2,124	1.25	86	1.25	155
Actual (ft)	2,124	1.25	86	1.25	155
Difference (ft)	0	0	0	0	0

3.3.1.2. Cost Performance

All 12 completed CPI schemes were completed within the approved budget. Table 4 summarizes the details of the costs of the DWSSs. The materials and equipment form the largest constituent of the total cost. It is expected that the final cost of completion of the ongoing CPI schemes would be considerably higher than that of the completed schemes. It is because the prices of construction materials, pipes and other accessories have increased in the recent months.

Cost of the schemes varies considerably. As mentioned earlier, the variation is attributed to topographic and geographical factors. Note: While analysing the data of all 278 drinking water supply schemes, we found that out of 20 highest cost CPIs, 14 (70%) were concentrated alone in Jamshoro district. On the other hand, out of the 20 lowest cost schemes, 13 (65%) were located in Sujawal, which endorse the finding that geographical and topographic factors affect the cost of schemes.

Table 4. Drinking water supply schemes – cost breakup

	Completed Scheme	Ongoing
No of Schemes	**12**	**7**
Average costs (PKR)	582,787	376,438
Standard deviation (PKR)	308,374	172,502
Maximum (PKR)	990,880	578,469
Minimum (PKR)	262,795	159,000
% share in costs:		
Material and equipment	83%	82%
Skill labour	8%	9%
Unskilled labour	9%	9%
Total	**100%**	**100%**

3.3.1.3. Schedule Performance

Five (5) CPI schemes (42%) of drinking water supply were completed before or within the approved project completion dates while, seven CPIs (58%) suffered time overrun up to one year. The assessment team noted that the planned and actual dates of start and completion of the CPIs were missing in the CPI files in some visited locations. During the field visit the team requested the concerned engineers to record the information missing in the VO and CPI files and document. However, NRSP team clarified that date of start and date of completion is given in Sub Grant Agreement.

Table 5. Drinking water supply schemes – adherence to approved timeline

	Dadu	Jamshoro	Kambar Shahdadkot	Larkana	Sujawal	Tando Allahyar	Tando M. Khan	Grand Total
Completed within time	0	0	1	1	1	1	1	5
Completed with delay	2	3	1	0	0	0	1	7
Total	**2**	**3**	**2**	**1**	**1**	**1**	**2**	**12**
% of CPIs completed in time	0%	0%	50%	100%	100%	100%	100%	42%

The team also tried to find the reasons of delay. Findings show that three (25%) CPIs could not be completed because of the conflict over CPIs and another three (25%) CPIs suffered because of the conflict in the area and delays in banking processes. The conflicts were mostly related to issues of land rights. As far as issues related to banking processes are concerned, they include: 1) opening a bank account in the name of VO was not always easy, as community members in many cases took longer times for preparing documents and submitting them to banks; 2) bank staff, in many cases, showed reluctance in opening bank accounts in the names of VOs; and 3) a minor variation in signatures on cheques affected the transaction processes, leading to delays.

Table 6. Drinking water supply schemes – the causes of delay

	Dadu	Jamshoro	Kambar Shahdadkot	Grand Total
Conflicts over the CPI	1	1	0	3
Conflict in the area	1	1	1	3
Other (Specify)	0	1	0	1
	2	3	1	7

3.3.1.4. Role of Women in Procurement

The VOs were formed by women leaders of COs. Each VO constituted a procurement committee. The members of the procurement committee were given training in procurement management. The procurement committee had the responsibility of procuring material and equipment, needed for the implementation of the scheme. Since this was the first time the women had been entrusted with the responsibility of doing procurement – identifying and talking to the vendors, collecting quotations and negotiating prices therefore, they sought help from their men. The VOs member of Thoro Khan Balouch Sehwan said, "It was our first experience of making procurement for construction work. So we visited the market (in Hyderabad) along with a male and completed the procurement process. RSP engineers helped us in ensuring the quality of items".

The VOs have followed good practices of procurement. For example, the VO members of Thoro Khan (Sehwan) reported that they got quotations from different shops and finalised one vendor/shop to buy required material so that they could procure items at reasonable prices. They added that this strategy helped them to understand the market and market rates.

3.3.2.Maintenance

3.3.2.1. Functional vs Non-functional Schemes

The technical assessment team, at the time of visit, found that 92% of the DWSS CPIs (11 out 12 complete CPIs) were fully functional, and were serving the needs of the targeted households, while the remaining one CPI was partially functional (Table 7). It was located in Jamshoro district. During the visit of the assessment team it was found that one water of the tanks was totally nonfunctional and was in a poor physical condition, which requires rehabilitation.

Table 7. Drinking water supply schemes – functional vs non-functional schemes

	Dadu	Jamshoro	Kambar	Larkana	Sujawal	Tando Allahyar	Tando M. Khan	Total
Fully functional	3	3	1	1	1	1	1	11
Partially functional	0	1	0	0	0	0	0	1
Total	3	4	1	1	1	1	2	12
Share of fully functional in total (in %)	100	75	100	100	100	100	100	92

3.3.2.2. The Quality of Maintenance

The evaluation team found that more than half (6 out of 11) of the CPIs were fully maintained and no damage and no water leakages were observed. Three CPIs were partially maintained, where the physical condition was poor and up to 33% water losses were observed while two CPIs had limited maintenance where more than 33% water losses were recorded. One CPI was not maintained and it was reported that the CPI had not been operational/ functional for the last three months. The technical experts of this study found that people were mainly maintaining hand pumps using traditional practice in most places in those localities. However, water supply through water pumping from distances is a challenge due to the cost of electricity used for pumping.

Table 8. Drinking water supply schemes – the quality of maintenance

	Dadu	Jamshoro	Kambar	Larkana	Sujawal	Tando Allahyar	Tando M. Khan	Total
Fully maintained	2	1	1	1	1	1	0	7
Partially maintained	1	1	0	0	0	0	1	3
Limited maintenance	0	1	0	0	0	0	0	1
Not maintenance	0	1	0	0	0	0	0	1
Total	**3**	**4**	**1**	**1**	**1**	**1**	**1**	**12**

The participants of all of the FDGs reported that they had formed a committee for looking after the operation and maintenance of the CPI scheme. Besides, they told that they had pooled funds for maintaining the schemes. The community members of village Bachu Khaskeli, Jamshoro said, "If something is broken, and funds are required, then we collect funds from the beneficiaries. Besides, our VO has created a reserve fund of PKR 5,000 through the contributions of community members, which is meant for meeting the expenses of urgent need."

A member of the VO Goth Ali Murad Barejo, Jamshoro reported to have hired staff (i.e. operators) to operate and maintain the CPIs.

Issues: The technical assessment team found three key issues with the water supply schemes, which are presented in Table 9.

Table 9. Major issues in the drinking water supply schemes

Village /district	Issue	Suggestion
Village Reshman Village Tharo Khan Rind District Jamshoro	In village Baloch, where a hand pump scheme was implemented, the women community members told that they had to go to Sehwan for repairing of the hand pump, which is approximately 30 km away from the village. It takes about half an hour to reach the city.	A local person should be trained for small repairs and have the necessary spare parts in hand.
Bachu Khaskeli, Jamshoro	The community of the village reported that they were facing difficulty in accessing technical expertise for repair work. They reported that no mechanic was available in the village to do the job of repairing, while the mechanics available in the city were too expensive and were often not willing to come to the village.	Same as above

Testing the taste of Water by Team Leader (Reshman village Tharo khan Rind district Jamshoro)

3.4. Social Impact

Access to water is widely recognised as a basic human right. The DWSSs have increased the access of people to drinking water. Hence, the drinking water supply schemes (DWSS) are of great significance. The FGDs identified a range of social benefits that the beneficiary communities had realised from the drinking water supply schemes, which are described below:

- **Saving of time for women:** The drinking water supply schemes have saved time for women. The women participants of the FDGs reported that the schemes had saved lot of their time and now they were using the saved time in cleaning their houses, attending to children and doing work for additional earning by making and selling artisan products. Sample statements are presented in the box given below:

  How access to drinking water has relieved women?

  "We are now relieved of the burden of fetching water and are giving more time to our children and family members". (Bachu Khaskeli, Jamoshoro)

  "We have installed a hand pump with the support of the project. It has made our lives easier. Earlier we had to walk for two hours (one side) to collect water and it was not easy to walk with a pitcher filled with water for two hours. Sometimes we would need to visit the water collection point 2 to 3 times a day. It used to be very painful. Now, as water is available at our doorsteps, it is saving a lot of our time. We are utilising the saved time in cleaning our houses, and doing some work for earning. Usually we get work like loading vehicles with stones, and a family can earn around PKR 4,000 per week".(Thoro Baloch, Jamshoro)

- **Reduction in the incidence of water borne diseases:** The FGDs in almost all districts revealed that the community members were more sensitised about the need of safe drinking water and about the connection between unsafe drinking water and the spread of diseases. For example, the community of village Goth Ali Murad Barejo, Jamshoro reported that the water supply scheme had helped to reduce water-borne diseases (especially diarrhoea) in the village.

- **Change in the bathing habit:** Another benefit of having increased access to drinking water was highlighted by the community members of village Sujawal Jogi Muhamad, Kambar Shahdadkot. They informed that with the improved access to drinking water, their habit of taking baths had also changed. Similar views were expressed by the community of village Haji Ghulam Laghari, Tando Allahyar.

Besides, the FGDs of a number of villages identified some indirect benefits too, as reported below:

- **Social cohesion:** Some of the beneficiaries of drinking water supply scheme at Tando Allahyar district told that they belonged to a different caste - some were Kohlis, others were Bheels. Though they do not eat together and do not allow inter-caste-marriages, yet they supported each other on such development initiatives.

- **Promotion of girl's education:** The members of VO Thoro Khan (Sehwan) told that they were holding their monthly meetings on regular basis and in such meetings they had discussed social issues such child marriages, girl's education, cleanliness and hygiene, individual savings, etc. They emphasised that each girl had a right to education. One of the participants added, *"We want our kids to get education. We are not literate but we want our girls to complete their education at least up to matric"*.

3.5. Economic Impact

The sample included 12 drinking water supply schemes, selected from six districts namely Sujawal, Jamshoro, Tando Allahyar, Dadu, Kambar Shahdadkot and Larkana. The average cost of the schemes varied from PKR 100,000 (in case of Sujawal) to PKR 566,368 (in case of Jamshoro). The average number of beneficiaries also ranged in the same pattern, from just 12 (in case of Sujawal) and 134 (in case of Jamshoro).

The CPIs, as mentioned in the social benefits, have reduced the activity of fetching water to a great extent. Eventually, both men and women have been able to save time. The analysis of data collected from the focus groups shows that the total value of such savings for men, using nominal wage rates as reported by the community, varies from PKR 241,755 (in case of Dadu) to PKR 2,587,793 (in case of Kambar Shahdadkot) per CPI per annum. The CPIs are saving relatively more time for women. The total value of time saved for women ranges from PKR 624,150 (in case of Sujawal) to PKR 5,956,876 (in case of Jamshoro). See district-wise comparison of average cost and average estimated gain in Table 10 .

Women participants of FGDs in Bachu Khaskeli, Jamoshoro and village Sujawal Jogi Muhamad, Kambar Shahdadkot told that they were using the saved time in income generating activities (such as embroidery, sewing clothes) too.

The CPIs have reduced family health expenditures too, because of increased access to safe drinking water. In fact, it helped in reducing, as believed by communities, water borne diseases. The reported reduction (shown in Table 11) in health expenditures per family / month varies from PKR 1,000 (in case of Sujawal) to PKR 2,500 (in case of Tando Allahyar).

On overall basis, the average annual cumulative gains per drinking water supply scheme range from PKR 0.98 million (in case of Sujawal) to PKR 9.23 million (in case of Jamshoro), yielding ROI ranging from 6.71 (in case of Dadu) to 19.30 (in case of Kambar Shahdadkot). These gains are highly significant. Even if O&M cost in case of any CPI goes as high as equivalent to 100% of the capital cost of a scheme, still total gains would exceed the total cost including capital and O&M.

Table 10. Drinking water supply schemes –time saved from water fetching activity

	Sujawal	Jamshoro	Tando Allahyar	Dadu	Kambar Shahdadkot	Larkana
Average cost of CPI (PKR)	100,000	566,368	191,000	467,378	420,632	270,247
Av. No. of beneficiary HHs/CPI	12	134	27	50	112	104
Per HH cost of CPI (PKR)	8,333	4,214	7,074	9,348	3,772	2,599
Time saving-fetching water (men)						
Reduction in no. of men fetching water	4	26	5	6	25	11
Reduction in Av. time taken by man	38	65	58	79	83	24
Reduction in round trips for men	3	3	2	2	3	3
Wage rate (PKR)	600	475	600	450	550	600
Saving in a day (mins)	456	4,244	580	707	6,188	792
Saving in a day/HH (work days)	1.0	9	1	1	13	2
Savings in PKR for year	208,050	1,533,068	264,625	241,755	2,587,793	361,350
Time saving-fetching water (women)						
Reduction in no. of women fetching water	12	118	21	42	84	85
Reduction in Av. Time taken by woman	38	56	58	79	40	25
Reduction in round trips	3	3	2	2	3	3
Wage rate	600	475	600	450	550	600
Saving in a day (mins)	1,368	16,492	2,436	4,946	10,020	6,375
Saving in a day (work days)	3	34	5	10	21	13
Savings in PKR for year	624,150	5,956,876	1,111,425	1,692,288	4,190,656	2,908,594
Ratio of time saving for women to women	3.0	3.9	4.2	7.0	1.6	8.0

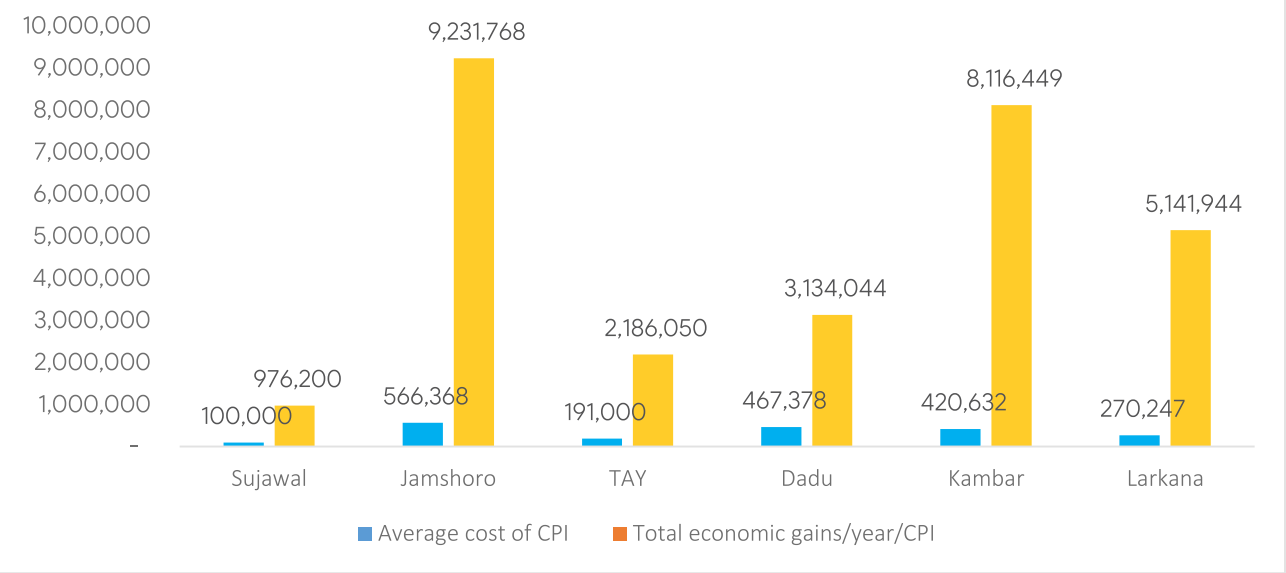
Table 11. Impact of water supply schemes on family health expenditures

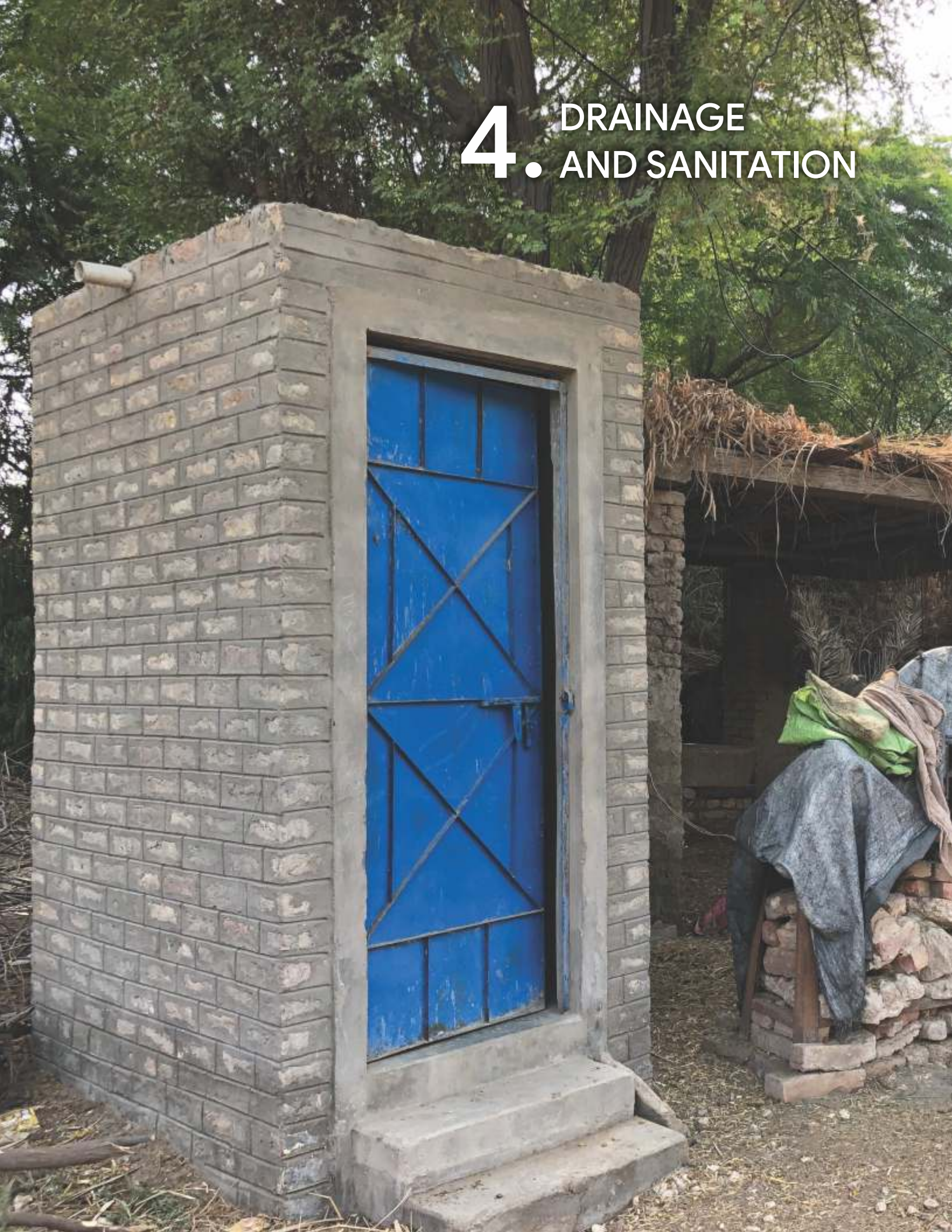
	Sujawal	Jamshoro	Tando Allahyar	Dadu	Kambar Shahdadkot	Larkana
Reduction in health expenditure/HH/month	1,000	1,080	2,500	2,000	1,000	1,500
Reduction in health expenditure/annum	12,000	12,960	30,000	24,000	12,000	18,000
No. of HHs	12	134	27	50	111.5	104
Total saving in health/CPI/year	**144,000**	**1,741,824**	**810,000**	**1,200,000**	**1,338,000**	**1,872,000**

Table 12. ROI of water supply schemes

	Sujawal	Jamshoro	Tando Allahyar	Dadu	Kambar Shahdadkot	Larkana
Value of men's time saved	208,050	1,533,068	264,625	241,755	2,587,793	361,350
Value of women's time saved	624,150	5,956,876	1,111,425	1,692,288	4,190,656	2,908,594
Reduction in health expenditure	144,000	1,741,824	810,000	1,200,000	1,338,000	1,872,000
Total economic gains/year/CPI	976,200	9,231,768	2,186,050	3,134,044	8,116,449	5,141,944
ROI (in ratio)	9.76	16.30	11.45	6.71	19.30	19.03
ROI (in %age)	976	1630	1145	671	1930	1903

Figure 3. Average cost of CPI vs total annual economic gains (estimated) - in PKR





4. DRAINAGE AND SANITATION

4. DRAINAGE AND SANITATION

4.1. Overview of CPIs

Drainage and Sanitation, the sub types include latrines, and street pavement with drain line and culverts. The programme, so far, has initiated 359 drainage and sanitation schemes out of which 203 schemes have been completed. A majority of the drainage and sanitation schemes are concentrated in Dadu and Jamshoro. Average cost per CPI is lowest in District Sujawal (PKR 222,000) and highest in district Dadu (PKR 554,282). Similarly, the districts vary greatly on account of average number of beneficiary households per CPI: lowest in Sujawal (only 35) and highest in Dadu (123). As far as average cost per unit beneficiary household is concerned, it ranges from PKR 3,038 in Matiari to PKR 6,373 in Sujawal.

Table 13. Overview of district-wise drainage and sanitation schemes

	Dadu	Jamshoro	Larkana	Matiari	Sujawal	Tando Allahyar	Tando M. Khan	Total
No of scheme initiated	218	58	8	14	12	28	21	359
No of scheme completed	116	30	6	13	7	19	12	203
No. of beneficiary HHs	26,852	6,234	671	1,354	418	1,725	1,211	38,465
Cost of schemes (PKR m)	120.83	31.46	4.04	4.11	2.66	8.93	7.66	179.71
Average cost/CPI (PKR)	554,282	542,430	504,834	293,786	222,000	319,036	364,857	500,571
Average HHs/CPI	123	107	84	97	35	62	58	107
Average cost/HH (PKR)	4,500	5,047	6,019	3,038	6,373	5,179	6,327	4,672

4.2. Relevance

The focus groups of beneficiaries highlighted that the drainage and sanitation systems of their villages were in poor condition before the project and that they were in dire need to improve their drainage and sanitation services in their villages. Moreover, the schemes were identified through building consensus among the community people. For example, the participants of the FGD held in village Sadori, Dadu told that at the stage of planning, people developed disagreement on the route of the street pavement scheme; however, all disagreements were resolved amicably by the VO after consultation with the potential beneficiaries.

Sample statements of the participants of the FDGs are as follows:

- Earlier the streets were in bad conditions. Waste water used to collect on the streets, which used to make it very difficult for people to walk. The situation used to worsen in rainy season. (Village Sadori, Dadu; Village Ali Ahmed Chutto, Matiari)
- Before the scheme, we did not know that the practice of open defecation was bad for our health. Many of us had never even bothered about the potential consequences of letting children defecate near kitchens or places where we used to sit. (Peer Jo Goth, Larkana)

- Prior to the scheme, none of the house had toilets but every community member recognised the need of having one, hence, everyone agreed on the selection of the scheme. Besides, at the stage of designing, special consideration was made to ensure that the toilets were accessible to women and children (Peer Jo Goth, Larkana)

The community members that the assessment team met with at the CPI sites were happy about the drainage component of the CPI due to their usefulness during rainy seasons. They told that the structures had provided mitigation measure against the storms and reduced their vulnerability to floods. The sanitation component of the completed CPIs was stand alone with minimum use. The assessment team was told that the addition of providing shank for washing would have added value to the CPIs.

4.3. Technical Assessment

4.3.1. Implementation

4.3.1.1. Designed Vs Actual Specification

The technical expert of the study found that the actual specification of the drainage and sanitation CPIs matched with the designed specifications (see details in Table 14).

Streets: In the case of street pavements the length, width, depth of foundation and size of the bricks were measured and those matched the specifications shown in the files. However, there were gaps in the construction such as poor backfilling and improper compaction of the filling. The community members in case of all CPIs of roads and bridges expressed their satisfaction with the quality of work.

Table 14. Drainage and sanitation schemes – actual vs designed specifications

	Foundation length	Foundation width	Foundation Thickness	Dug well Diameter	No. of households
Design (ft)	5	5	6	1.25	29
Actual (ft)	5	5	6	1.25	29
Difference (ft)	0	0	0	0	0

4.3.1.2. Cost Performance

Materials and equipment accounted for a bigger part of the total costs of drainage and sanitation schemes (Table 15). Twelve (12) out of 13 schemes (92%) were completed within the approved budget (Table 16).

The technical assessment team found that procurement committees were present and necessary records such as vouchers and VO books of account were available, wherever the technical assessment team visited. Responding to the question, how CPIs could be completed within given budget, a member of the Procurement Committee of VO Chana, Kambar Shahdadkot District said, *"As a member of the Procurement Committee, I along with other members visited major markets closer to the village, conducted survey and purchased quality material on best available market rates. We ensured quality and bargained well in the market for the required materials, which ensured timely completion of the CPI scheme within the given budget."*

The trend shows that the average cost of the CPIs is tending to increase, and the ongoing schemes are likely to suffer from cost overrun.

Table 15. Drainage and sanitation schemes – cost breakup

	Completed Scheme	Ongoing
No of Schemes	13	2
Average Costs	464,704	519,076
Standard Deviation	192,487	4,136
Maximum (toilets)	858,683	522,000
Minimum	162,000	516,151
Material and Equipment	79%	78%
Skill Labour	9%	7%
Unskilled Labour	12%	15%
Total	100%	100%

Table 16. Drainage and sanitation schemes – cost overrun

	Dadu	Jamshoro	Kambar Shahdadkot	Larkana	Matiari	Sujawal	Tando Allahyar	Tando M. Khan	Total
Completed within approved budget	4	2	2	0	1	1	1	1	12
Completed with cost overrun	0	0	0	1	0	0	0	0	1
Total	**4**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**13**

4.3.1.3.Schedule Performance

The analysis of available data shows that only 4 out of 13 CPIs (31%) were completed before or within the approved schedules, while the remaining 9 CPIs (69%) suffered from delays, however, maximum delay in no case exceeded one year (Table 17).The chief reasons of the delays in completion of the CPIs are: 1) conflict over the CPIs, 2) delays in fund disbursements, and 3) communal conflicts in the area (see Table 18). It is pertinent to point out that information about the planned and actual date of start and actual date of start of the CPIs and completion planned and actual dates of completion were missing in the CPI files.

Table 17. Drainage and sanitation schemes – schedule performance

	Dadu	Jamshoro	Kambar Shahdadkot	Larkana	Matiari	Sujawal	Tando Allahyar	Tando M. Khan	Grand Total
Completed within time	1	0	0	1	0	1	1	0	4
Completed with delay	3	2	2	0	1	0	0	1	9
Total	**4**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**13**

Table 18. Drainage and sanitation schemes – causes of time overrun

	Dadu	Jamshoro	Kambar Shahdadkot	Matiari	Tando M. Khan	Total
Conflict over the CPI		1				1
Communal conflict in the area	0	0	0	1	0	1
Delayed fund disbursement and conflict in the area	3	1	2	0	1	7
Others	**3**	**2**	**2**	**1**	**1**	**9**

4.3.2. Operation and Maintenance

4.3.2.1. O&M Mechanism

At all the sites of CPIs visited VOs have constituted operation and maintenance committees to look after O&M. Except TRDP programmearea VOs have raised funds for meeting expenses for the operation and maintenance of the CPIs. For example, the community members of Peer Jo Goth, Larkana told that they had collected PKR 11,000 to meet the requirements of O&M. It was reported that in villages (such as village Bachu Khaskeli, Jamshoro) where no bank was located in the nearby locations, the communities pooled funds for maintaining the schemes.

4.3.2.2. Functional vs Non-functional Schemes

All 13 drainage and sanitation CPIs included in the sample were found fully functional, which is an indicator of sound implementation and regular maintenance of the CPIs (Table 19). The assessment team found that 11 out of 13 CPIs (85%) were free of defects and required only routine maintenance. Only two CPIs were found with defects and weak structural and those require resurfacing but without causing damage to the existing structure. The technical expert held the view that if repair work is not carried out, it would result in health hazards, and pollution of physical environment. These are located in Dadu and Jamshoro districts.

Table 19. Drainage and sanitation schemes – functional vs non-functional CPIs

	Dadu	Jamshoro	Kambar Shahdadkot	Larkana	Matiari	Sujawal	Tando Allahyar	Tando M. Khan	Grand Total
Fully Functional Scheme	4	2	2	1	1	1	1	1	13
Not functional Schemes	0	0	0	0	0	0	0	0	0
Total	**4**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**13**

Table 20. Drainage and sanitation schemes – conditions of CPIs

	Dadu	Jamshoro	Kambar Shahdadkot	Larkana	Matiari	Sujawal	Tando Allahyar	Tando M. Khan	Grand Total
Paved street largely free of defects, requiring only routine maintenance and surface treatment	3	1	2	1	1	1	1	1	11
Paved street with defects and weakened structural resistance. They require resurfacing but without the need to destroy the existence pavement	1	1	0	0	0	0	0	0	2
Total	**4**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**13**

4.4. Social Impact

The woman in the villages, where sanitation and hygiene CPIs were implemented by the SUCCESS Programme reported that it has reduced diseases especially among children. Sample statements of the participants of the FGDs are reported below:

- *"With the construction of toilets, hygienic conditions have improved, eventually diseases have reduced"* (Village Samthani, Dadu)

Construction of toilets has increased the privacy of women. They feel safe and more confident. Sample statements of the participants of the FGDs are reported below:

- *"The availability of toilets within the houses has improved safety and privacy for women and girls. The fact is privacy is the major benefit for us."* (Village Samthani, Dadu)
- *"Latrines have improved our privacy"* (Peer Jo Goth, Larkana)

The community of village Tando Soomro, Tando Allahyar said that the pavement of streets had almost eliminated dirt and garbage from the streets and people were feeling good about the **healthy change.**

The members of a number of communities such village Ali Ahmed Chutto, Matiari reported that they had been given orientation on how to maintain hygienic conditions.

The participants of the FGDs with the beneficiary communities claimed that due to improvement in drainage and sanitation, the number of **school-going children** had increased because of the ease of mobility. Earlier, drainage water used to keep standing on the streets, restricting the mobility of people especially women and children. This indicated that enrolment has increased by 10 students each in Larkana, Jamshoro, Matiari and Sujawal districts while in other districts the improvement was on relatively higher side. Girls' enrolment also showed considerable improvement. However, this improvement in school enrolment should not be solely attributed to the improvement in drainage and sanitation services, as there are a number of other factors which are likely to have played a role. First, women are more sensitised and empowered through the activities of their COs; hence, they have paid more attention to the education of their children. Second, two other projects have been implemented in the programme area which have launched campaigns for enrolment. The projects include Let's Take a Child to School– financed by British Council; and the Waseela-e-Taleem Programme of Benazir Income Support Programme).

The CPIs of drainage and sanitation especially streets development have reportedly improved sanitation in the villages and improved the **mobility of people** especially children and women, as drainage water no longer stands on the streets. It has improved school enrolment too. Sample statements of the participants of the FDGs are as follows:

- *"Now women can move easily from one corner of the village to other corner"* (Village: Long Chanwan, Dadu)
- *"There is no longer water standing on the streets. We can walk from one mohalla to other mohalla without any difficulty. Children can easily go to the school. Moreover, the street lining has improved the condition of sanitation in the village, and is affecting the health of women and children positively."* (Village Sadori, Dadu)

The CPIs of drainage and sanitation have produced a number of i**ndirect benefits.** Firstly, the COs took care of the interests of **widows and poor families.** For example, the participants of the FGD held at Village Samthani, Dadu told that there were about 600 families living in their village and some families were very poor and they could not afford to build washrooms on their own, that is why the CO built washrooms for 10 families and preference was given to poor and widows. Similarly, another indirect benefit which is likely to have long term impact is the **development of external linkages.** For example, in case of Sehwan Drainage Scheme, UC Councillors and landlords played important role in the development of drainage scheme.

Table 21. Overview of district-wise drainage and sanitation schemes

	Dadu	Larkana	Jamshoro	Kambar Shahdadkot	Tando Allahyar	Matiari	Tando M. Khan	Sujawal
Increase in no. of students	15	10	10	14	30	10	20	10
Increase in no. of girls students	41	25	40	47	43	33	67	22
% increase in no. of girls students	2	4	5	4	10	3	7	8
Decrease in out of school children (OOSC)	43	44	63	23	67	33	47	53
% decrease in OOSC	1	10	10	3	15	20	30	20

4.5. Economic Impact

The average cost of the sampled CPIs was PKR 432,739 against population mean of PKR 500,571/scheme, indicating that the sample was largely representative. The investment on the CPIs of drainage and sanitation CPIs has produced a number of economic benefits. The beneficiaries of the samples drainage and water supply schemes in FGDs reported that due to improvement in the drainage and sanitation services, their family expenditures on health had fallen considerably– by a varying degree from 50% in Tando Allahyar and Sujawal to 76% in Kambar. The estimated amount of savings gained through the reduction in medical expenditures of all beneficiaries of drainage and sanitation schemes range from PKR 300,000 (in case of Sujawal) to PKR 714,000 (in case of Kambar Shahdadkot), while the ROI of these schemes varies from 71% in Dadu to 185% in Tando Allahyar. These findings clearly substantiate the economic benefits of CPIs related to drainage and sanitation.

Table 22. Impact of drainage and sanitation schemes on health expenditures

	Dadu	Larkana	Jamshoro	Kambar Shahdadkot	Tando Allahyar	Matiari	Tando M. Khan	Sujawal
Pre CPI monthly expenditures	2,000	2,200	2,000	2,250	2,000	2,000	2,000	3,000
Post CPI monthly expenditures	575	800	550	550	1,000	800	800	1,500
Decrease in monthly expenditure	1,425	1,400	1,450	1,700	1,000	1,200	1,200	1,500
% decrease in monthly expenditure	71	64	73	76	50	60	60	50
Total beneficiary HHs	27	35	30	35	25	35	24	24
Annual savings/CPI	465,975	588,000	513,300	714,000	300,000	504,000	345,600	432,000
Average cost of CPI	652,247	386,680	449,487	797,498	162,000	365,000	261,000	388,000
ROI	71	152	114	90	185	138	132	111

5. ROADS AND BRIDGES

5. ROADS AND BRIDGES

5.1. Overview of CPIs

The CPIs of roads and bridges also includes culverts, link roads, bricks pavement, concrete pavement, bridges, turf pavement and culverts. The SUCCESS Programme has initiated 1147 CPIs related to roads and bridges out of which 414 have been completed. The total number of beneficiary households of all 1147 CPIs was estimated at 104,312. The average cost of construction per CPI ranged from PKR 458,298 (in case of Matiari) to PKR 808,057 (in case of Larkana).

Table 23. Overview of roads and bridges schemes

	Dadu	Jamshoro	Kambar Shahdadkot	Larkana	Matiari	Sujawal	Tando Allahyar	Tando M. Khan	Total
No of scheme initiated	92	36	283	217	151	82	141	145	1,147
No of completed CPIs	32	12	110	66	53	26	60	55	414
No. of beneficiary HHs	12,952	5,585	27,283	21,973	9,635	5,070	9,809	12,005	104,312
Cost of CPIs (PKR m)	49.04	19.38	207.45	175.35	69.20	33.54	77.13	72.26	703.36
Average cost/CPI (PKR)	533,092	538,457	733,029	808,057	458,298	408,963	547,014	498,372	613,213
Average HHs/CPI	141	155	96	101	64	62	70	83	91
Average cost/HH (PKR)	3,787	3,471	7,604	7,980	7,182	6,614	7,863	6,019	6,743

5.2. Relevance

Roads and bridges improve the access of communities to education and health facilities and local markets. The relevance of the schemes of roads and bridges with the needs of the communities is substantiated as follows:

Road schemes: The following discussions based on the responses of the beneficiary communities, establish the relevance of the road schemes to their needs:

- **Barriers to movement of people:** The participants of the FGD in Larkana said, "*Earlier the road was unpaved. There used to be dust everywhere. Anyone walking on the passage could hardly breathe. In rainy season, although dust used to settle down but the passage used to become too much muddy and we could hardly move. The passing vehicles used to splash through mud puddles, throwing mud and filthy water all over the pedestrians and cyclists*". Similarly, the community members of village Mohammad Ismail Jatt, Sujawal told that on rainy days our village used to get cut off from the rest of the world. They added that, *"rainy days used to give off days to school going children as it was almost impossible to reach schools as the kachha (unpaved) roads were inundated with water"*.

- **Lack of access to hospitals:** The roads and bridges CPIs have improved their access to hospitals/health centres. The participants of the FGD held in Larkana said, *"in case of emergency, it used to become difficult to take patients to hospital for treatment and expecting mothers for delivery"*. Similarly, the community members of village Mohammad Ismail Jatt, Sujawal told that due to lack of access road, no one with any vehicle was able to reach the village. In case of emergency, they always felt helpless and in one case a pregnant woman could not be shifted to hospital on time, and she died on the way to the hospital. Women were the major affectees. For example, the community members of village Kalhoro highlighted that women were facing more difficulties to reach the hospital because of the poor conditions of the road and cultural barriers.
- **Accidents and diseases:** Bad road conditions in many cases proving risky for the lives of people. A women participant of the FGD in village Ahmed Khan Jamali, Dadu said, *"Last year the road was still in bad condition. On a rainy day, water gathered on the road. My sister, while walking home, slipped and fell into a ditch. She got injuries and had to be hospitalised. On that day we felt badly, the need of road construction."* Another participant from the same village added, *"Water on streets often caused the spread of diseases."*
- Women's needs were given special consideration during the identification of scheme in villages. The participants of Pahya / Jaleel Kalhoro, Kambar Shahdadkot specially emphasized upon it.

Bridge schemes: The relevance of the CPIs of bridges to the needs of the beneficiary communities is established as follows:

- The participants of the FGD in village Laal Faqeer Bahrani, district Tando Allahyar explained their pre-project situation as, *"we were in dire need of a bridge on the canal, as we always faced difficulties in crossing the canal especially when we had to take janaza for burial as our community graveyard is located on the other side of the canal. The canal was developed in 1970s while the graveyard existed at least a century ago."* Similar views about the need of a bridge on a canal were highlighted by the community members of village Ismail Brohi, Kambar Shahdadkot too. Besides, they added that at a number of occasions, people attempting to cross the canal, fell into it.
- A majority of the beneficiary communities are poor and have little or no influence on government to get their community problems addressed. For example, the community members of village Latifabad, Giddu, Matiari told that they badly needed a bridge on the canal to get easier access to market and other public services, so they approached politicians during every election to get their need fulfilled, but no one took their demands seriously. They highlighted that due to non-availability of bridge, it used to be a big challenge for people especially women and children to cross the canal.

The relevance of the schemes to the needs of the communities is further established through the review of the process of scheme identification. Discussions with the focus groups revealed that the process of CPI identification involved the application of participatory approaches. Even in some villages, the communities had competing demands and they prioritized their needs through discussions. For example, the community of village Haji Ghulam Laghari, Tando Allahyar reported that they had two high priority competing needs, i.e. road and water supply and they through debates, decided to prefer water supply over road. The participants of the FGD held in Village Pirsado Pir Hathlo Nawab, Dadu said that they were involved in the process of the identification of the scheme and that they collectively decided to build a road. Similarly, the community members of village Giddu Bhag, Jamshoro reported that all women were present in consultative meetings and they participated well in the process of scheme identification.

There are some exceptions too. For example, one of the participants of the FGD in Giddu Bhag, Jamshoro said, *"improving the drainage system was our felt need, while the social organizer suggested us to opt for road; otherwise the scheme would be transferred to another village. Eventually, all women had to agree on the road scheme"*. Since this is a standalone instance, hence, it may not be appropriate to generalise it to the whole programme. Secondly, there is a possibility that this issue might be the outcome of some misunderstanding between community and the organiser.

5.3. Technical Assessment

5.3.1. Implementation

5.3.1.1. Implementation Arrangement

During the visits to the under construction CPI sites the community representatives told the technical assessment team that RSPs engineers frequently visited the ongoing CPIs and provided technical support. Most people met in the villages were happy about the support from the SUCCESS Programme and were expecting smooth completion of the CPIs which would facilitate village people walking easily even during the rainy and flood season.

The VOs constituted committee for taking different responsibilities. The participants of village Ahmed Khan Jamali, Dadu told that different committees were formed for facilitating the implementation of the scheme. Women also played role in the implementation of schemes. A woman participant of village Ahmed Khan Jamali, Dadu said, *"When road construction was in progress, we took care of the material"*. The community members of Ghul Ahmed Sario, Larkana told that they had done procurement on their own after checking prices of the required items in the market.

A standard process of financial management was followed in all schemes. A participant of the FGD held in village Laki Sadar, Jamoshoro explained it as: *"We received three cheques, in the form of demand draft. Each cheque was issued at specific stage of implementation"*. This practice kept a pressure on the implementation committees to make complete the implementation work as early as possible so as to claim the next instalment.

The FGDs also provided some evidence for the capacity building of the communities too. However, the women members of only few communities reported that they were given training in monitoring of the scheme and that they had carried out the tasks of monitoring. The women community members of village Latifabad, Giddu, Matiari are included among those few communities. However, some women even from these few communities faced resistance from their men family members. For example, Gul Bano of village Latifabad, Giddu, Matiari told that initially her husband did not allow her to do this task, however, the female project staff and some VO members convinced her husband, eventually she was allowed to visit the scheme.

5.3.1.2. Designed Vs Actual Specification

The technical assessment team found that 38 of 42 completed link road/bridge schemes were constructed according to the design specification (Table 24); however there were some minor variations noticed. The remaining four schemes had some minor issues. The names of the schemes are given in Table 25. The technical assessment team noticed that there were variations between actual specifications with designed specifications in those four CPI schemes. The variation was mainly because of the existing housing counters on both sides of the proposed roads. For example, in village Talbani of Larkana district, there were two different actual widths i.e. 8.5 ft at one point and 15.5 ft at another point. Details are provided in Table 25.

Table 24. Roads and bridges schemes – designed length vs actual length

District	VO	Type of CPI	Design Specification (ft)	Actual Specification (ft)	Reason of the Variation
Dadu	Kanwal	Roads & bridges	Length 650 width 8 Depth 1.2	L1 480 Width 8 L2 170 Width 5.5	On the ground this CPI has two parts with different widths but in the files the width is shown 8 feet.
Larkana	Arijaphero	Roads & Bridges	Length 542 width 7 & 12 Depth 1	L1 62 Width 12 L2 480 Width 7	Due to the houses and existing built environment of the existing street, the construction on the ground is reasonable but during the survey the engineer has recorded one width.
Larkana	Talbani	Roads & Bridges	Length 769 width 8.5&15.5 Depth 1.2	L1 644 Width 8.5 L2 125 Width 15.5	Due to the existing housing alignment on both sides of the street, the widths cannot be changed. Engineer should have shown the variation in the files right in the beginning.
Larkana	Haseeb Chandio	Roads & Bridges	Length 1290 width 8 & 13 Depth 1.5	L1=429 Width=8 L2=860 Width=13	This CPI has two different streets on the ground one street has a width 8 ft and the 2nd street has width of 13 ft, but this has not been reflected in the CPI file.

	Design length	Actual length	Difference
Length (ft)	905.13	908.44	3.31
Width (ft)	8.86	8.80	-0.06
Depth (ft)	1.30	1.24	-0.05

Table 25. Roads and bridges schemes – designed vs actual specifications

District	VO	Type of CPI	Design Specification (ft)	Actual Specification (ft)	Reason of the Variation
Dadu	Kanwal	Roads & bridges	Length 650 width 8 Depth 1.2	L1 480 Width 8 L2 170 Width 5.5	On the ground this CPI has two parts with different widths but in the files the width is shown 8 feet.
Larkana	Arijaphero	Roads & Bridges	Length 542 width 7 & 12 Depth 1	L1 62 Width 12 L2 480 Width 7	Due to the houses and existing built environment of the existing street, the construction on the ground is reasonable but during the survey the engineer has recorded one width.
Larkana	Talbani	Roads & Bridges	Length 769 width 8.5&15.5 Depth 1.2	L1 644 Width 8.5 L2 125 Width 15.5	Due to the existing housing alignment on both sides of the street, the widths cannot be changed. Engineer should have shown the variation in the files right in the beginning.
Larkana	Haseeb Chandio	Roads & Bridges	Length 1290 width 8 & 13 Depth 1.5	L1=429 Width=8 L2=860 Width=13	This CPI has two different streets on the ground one street has a width 8 ft and the 2nd street has width of 13 ft, But this has not been reflected in the CPI file.

Culverts/Bridges: A very negligible variance between the design and actual specifications was found by the Technical Assessment Team (Table 26).

Table 26. Design vs actual lengths of culverts

	Design culvert length	Actual culvert length	Difference
Length (ft)	14.43	14.62	0.19
Width (ft)	2.38	2.36	-0.01
Depth (ft)	5.82	5.82	0

5.3.1.3.Community Contribution

The communities contributed to the cost of the schemes, in kind. A participant of the FGD held in village Laki Sadar, Jamoshoro reported, *"We didn't pay anything in term of cash. We made our contributions in the form of labour, and lunches and tea for those who were working on the scheme"*. In most of the communities no woman was allowed to work. A community member from Laki Sadar, Jamshoro explained it as: *"In our village, women are prohibited to work on construction related activities"*. Similar constraints were highlighted by the community of village Giddu, Jamshoro and village Tharee Hashim, Kambar Shahdadkot.

Women contributed in the form of cooking food and tea for those who were working on the construction sites. The women of village Ali Ahmed Chutto, Matiari highlighted their contribution and emphasised that it should be recognised. Similar views were expressed by the community members of village Tharee Hashim, Kambar Shahdadkot.

5.3.1.4.Cost Performance

Table 27 summarizes the details of the costs of link road CPIs. The analysis of cost data shows that materials (i.e. cements, steel and bricks, etc.) formed the largest constituent of the total costs. All completed schemes were competed within the approved budgets. The analysis of the available data showed that 95% of the CPIs (41 out of 42) were completed within the approved budget. The remaining one CPI suffered cost overrun by 30%%. It happened due to conflicts within the community (Table 28).

The technical expert found that: 1) the cost of each of the sampled CPI matched with cost details available in files; 2) in most of the cases, the expenditure were found reflected in the VO books as well, though in few cases VO books were not presented to the technical assessment team for their review.

Table 27. Roads and bridges schemes – cost break up

	Completed Scheme	Ongoing
No of Schemes	42	23
Average Costs	629,832	295,558
Standard Deviation	463,232	156,023
Maximum	1,891,541	542,038
Minimum	114,619	125,000
Material	83%	79%
Skill Labour	8%	8%
Unskilled Labour	9%	14%
Total	**2%**	**100%**

Table 28. Roads and bridges schemes – cost performance

	Dadu	Jamshoro	Kambar Shahdadkot	Larkana	Matiari	Sujawal	Tando Allahyar	Tando M. Khan	Grand Total
Completed within the approved budget	100%	100%	100%	89%	100%	100%	100%	100%	99%
Completed with less than 30 % cost overrun from the approved budget	0%	0%	0%	11%	0%	0%	0%	0%	1%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

5.3.1.5.Schedule Performance

The analysis of available data shows that 46% of the CPIs schemes were completed before or within the approved completion dates. However, 49% (20 out of 41 CPIs) suffered a delay but less than one year. Out of the remaining two schemes, one scheme suffered from delay of more than one year while the other one could not be completed due to conflicts in the community. In some cases, the land lords who had initially agreed to provide land but later refused to give land.

The planned and actual dates of start and completion were missing in the CPI files. During the field visit, the assessment expert requested the concerned engineers to provide the dates. Some of them provided details verbally.

The reasons of delays of the CPI schemes, as per the programme staff and the community members, are listed in Table 30. It shows that 12% of the CPIs were not completed because of the conflict over the CPI. Around 20% of the CPIs were not completed due to the conflict in the area while remaining 60% of the affected CPIs could not be completed because of both delays in funds disbursement and conflict in the area.

Table 29. Roads and bridges - schedule performance

	Dadu	Jamshoro	Kambar Shahdadkot	Larkana	Matiari	Sujawal	Tando	TMK	Grand Total
Completed before or within the approved project completion date	0%	0%	60%	78%	75%	25%	33%	80%	46%
Completed with delay of less than one year	100%	67%	40%	22%	25%	75%	33%	20%	49%
Completed with delay of more than one year	0%	33%	0%	0%	0%	0%	0%	0%	2%
Not complete	0%	0%	0%	0%	0%	0%	33%	0%	2%
Total	100%	100	100	100	100	100	100	100	100

Table 30. Roads and bridges – reasons of delay

	Dadu	Jamshoro	Kambar Shahdadkot	Larkana	Matiari	Sujawal	Tando Allahyar	Tando M. Khan	Grand Total
Conflict over the CPI	13%	0%	0%	33%	33%	0%	0%	0%	12%
Conflict in the area	13%	0%	0%	0%	33%	67%	50%	0%	20%
Because of conflict in the area and due to cash flows/fund disbursement	75%	100%	100%	67%	0%	33%	0%	100%	60%
Others	0%	0%	0%	0%	33%	0%	50%	0%	8%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

5.3.2. Maintenance

5.3.2.1.Functionality of the CPIs (LAST ONE YEAR)

Almost all CPIs were found free of defects; with minor defects in some districts (see Table 31). Overall, 97% of CPIs of paved streets were largely found free of defects, requiring only routine maintenance and surface treatment. As many as 3% of the CPIs were found with defects and weakened structural resistance and requiring resurfacing. The technical assessment team found that seven percent of CPIs were paved roads which needed only routine grading and localized repair.

Table 31. Roads and bridges – conditions of O&M

	Dadu	Jamshoro	Kambar	Larkana	Matiari	Saujawal	Tando Allahyar	Tando M. Khan	Grand Total
Paved roads, largely free of defects, requiring only routine maintenance and surface treatment	100%	100%	100%	91%	100%	100%	100%	90%	97%
Paved roads with defects and weakened structural resistance. They require resurfacing but without the need to destroy the existence pavement	0%	0%	0%	9%	0%	0%	0%	10%	3%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

5.3.2.2. Operation and Maintenance Arrangements

All VOs members with whom FGDs were conducted reported that they had formed Maintenance Committees, to take care of the issues related to operation and maintenance of the CPIs. All of the communities like Laki Sadar Jamshoro, reported to have created a fund for the maintenance of the CPIs. Usually, the president of the VO is given the responsibility of collecting money from the members. Women have been given a role in the process of monitoring. A participant of the FGD held in village Laki Sadar, Jamshoro told, *"A collective mechanism for monitoring has been established by the women of the village. Group of three women is assigned to visit the street and report to the VO"*. The community members of village Tharee Hashim, Kambar Shahdadkot told that they had pooled PKR 17,200, for meeting the expenses on maintenance of the road and was available in the account of VO.

The participants of the village Ahmed Khan Jamali, Dadu told that they were cleaning their streets on daily basis. One of the woman participants added, *"It does not cost us to clean our streets while it is meant for our own benefits"*.

The community of village Mohammad Ismail Jatt, Sujawal told that they were taking full care of the brick-made road, and had evolved a practice of repairing the parts of the road when damaged.

Institutional Capacity Building Assessment

The CPI schemes not only provide essential access to the disadvantaged people of the society but also empower them to plan and manage the CPI schemes independently. The CPI component built the capacity of local people to identified, prioritised and manage their CPI scheme. The VO members confirmed that they are part of the different committees and performed their roles and responsibilities accordingly. For example Laila, a VO member from VO Pirsado Pir, village Hathlo Nawab of district Dadu said that we as a VO formed different committees of Purchasing, Maintenance, Audit and project Implementation. Another VO member Ms Jarikhan shared that project committee was formed for different work to improve quality of work and monitor the progress regularly.

5.4. Social Impact

The CPIs of roads and bridges have produced a number of social benefits, as highlights by the participants of FGDs:

- The FGDs with communities revealed that the people were using the facilities. The participants of FGD 48 said, "*The bridge has improved the **mobility of community***".
- Second benefit of the CPIs of bridges and roads, identified by the communities is improvement in their access to ***medical facilities***. The participants of FGD in village Latifabad Giddu mentioned, *"One of the major benefits is that our community has got easier access to medical and ambulance services in times of emergencies"*. Similar benefits of the road scheme were shared by the participants of Laki Shah Sadar, Jamshoro.
- Improvement in their ***access to schools*** due to CPIs of roads/bridges was also reported by a number of communities. The participants of several FGDs[6] reported that CPIs of roads/bridges

[6] Including Laki Shah, Jamshoro, Village Latifabad, Matiari

had improved access of children to schools. Eventually, school enrolment had increased. The analysis of data shows that enrolment has increased by 29%, with highest increase in Matiari (51%) and lowest in TMK (19%). Girl's enrolment has also improved, with varying rate of increase from 23% in Seawall to 52% in Tando Allahyar. One of the participants of the FGDs said, *"due to the **bridge** scheme, more children especially from Hindu community are now going to **school** because it has eased their access to school"*. Sample statements are presented below:

- *"Because of the scheme, it has become easier for children to reach their school"* (Village: Long Chanwan, Dadu; Village Giddu Bhag, Jamshoro)
- *"We have campaigned to get out-of-school children back to school. We have paid special attention to girls education"* (Laki Sadar, Jamshoro)

- The development of roads has saved time. Sample statements showing the responses of the beneficiaries are as follows:
  - *The road is a gift for us. It is saving a lot of our time.* (Village Pateji, Dadu; Village Giddu Bhag, Jamshoro)
- As access has improved. It has improved the feeling of privacy too. A woman participant of the FGD held in village Pateji, Dadu expressed her feelings as, *"earlier, the vehicle used to drop us at a distance from our homes as road was not built. As road has been built, it has improved access and now vehicles drop us at our doorsteps. It makes us feel safer. It has improved privacy."*
- **Reduction in accidents** was reported by at least two communities – both from Kambar Shahdadkot. The community of village Pahya / Jaleel Kalhoro reported decline in the number of accidents due to the construction of roads. Similarly, the community members of village Ismail Brohi, Kambar Shahdadkot reported that the number of accidents had been reduced, as earlier every now and then many of the people attempting to cross the canal fell into it.
- The CPIs of roads and bridges have improved the mobility of women. Sample statements of the participants of the FDGs are as follows:
- The CPIs also produced a number of indirect effects.
  - The **empowerment of women** is the major indirect benefit. A woman of village Giddu, Jamshoro said, *"We have learnt the lesson that women are not helpless. They can demonstrate their strength through participating in collaborative work"*. A participant of FGD 46 (Tando Allahyar) highlighted, *"initially we had some language barriers and we lacked confidence but now we have changed and have become more solution-oriented i.e. if any issues arise we work on solutions instead for waiting for the male to solve them"*. A woman participant of the FGD held at Village Ahmed Khan Jamali, Dadu said, *"In past, there was no tradition of consulting women for any matter related to the community. With the formation of CO, we are being given importance and recognition. We are consulted for all matters which are related to community"*. The participants of FGD Laki Sadar, Jamshoro told, *"In the VO meetings, we discuss different issues such as girl's education, maternal health and woman mobility"*. The project activities have boosted the confidence of women. A participant of the FGD in Laki Sadar, Jamshoro said, *"In early days, many woman were shy to communicate with male members of the community but with the passage of time, they developed confidence and skills"*.

- Linkages for development: Women of the Village Giddu Bhag, Jamshoro told that they were planning to meet with other developmental organisations working in our area, so that they could further the development of the village and the community.
- The schemes have developed the capacity of the communities to The community of village Ghulam Muhammad Nisamani, Tando Muhammad Khan said, *"Since the ownership of land belongs to the landlord, hence, we had to seek his consent for constructing the road. We held a meeting with the landlord and convinced him"*. The same community confronted another situation when some people refused to support. However, the community people sat with them and addressed their concerns.

Table 32. Impact of CPIs on education and children

	Larkana	Dadu	Kambar Shahdadkot	Tando M. Khan	Jamshoro	Sujawal	Matiari	Tando Allahyar
Average cost of CPI (PKR m)	1.278	0.616	1.233	0.410	0.297	0.486	0.285	0.346
No. of CPIs in the district	10	6	6	4	1	2	4	3
Average no. of beneficiaries/CPI	152	62	163	130	100	75	61	120
Average no. of students/CPI	36	33	37	80	100	50	24	43
Av. time saving/child/day (m)	30.5	20.8	30.8	28.8	20	27.5	40	28.7
Av. no. of school days/year	210	210	210	210	210	210	210	210
Av. time saving / CPI (m min)	0.229	0.145	0.238	0.483	0.420	0.285	0.200	0.238
Av. time saving / CPI (hours)	3811	2431	3945	8050	7000	4764	3325	3982
Av. time saving/student (hours)	107	73	108	101	70	96	140	93
% increase in enrolment	29%	29%	26%	19%	25%	25%	51%	30%
Av. no. of girls enrolled/CO	13	14	20	16	47	22	7	16
% increase in girls enrolment	44%	41%	29%	41%	34%	23%	47%	52%
% decrease in OOSC	19%	18%	14%	40%	20%	15%	48%	22%

5.5. Economic Impact

The economic impact of CPIs of roads/bridges on communities has been estimated by using indicators related to saving of time and reduction in the cost of transportation.

shows district-wise saving in total amount of time of communities to and from market places because of the development of infrastructures. Using 8 hours saving equivalent to saving of one working day, the estimated total number of working days saved per CPI range from 531 (in case of Tando Allahyar) to 1588 (in case of Sujawal) in a year. The value of the time saving, using average wage rates as reported by communities ranging from PKR 550-600 / day range from PKR 301,042 (as in case of Tando Allahyar) to PKR 952,500 (in case of Sujawal). These saving alone are equivalent to one third of the average cost of CPIs (in case of Larkana to almost twice the average cost of CPIs (in case of Sujawal).The CPIs have also lowered down transportation costs for travel to and from markets and work places (see Table 35).

While saving in travel to and from work and market places exclusively for women are shown in Table 34, which shows that gains in saving of time for women are also considerable.

The CPIs of roads and bridges have also improved the access of communities to hospitals. In this context, the communities have gained at least two types of gains – reduction in travel time and travel costs. The gains because of reduction in travel time are reflected in Table 37 and those attributed to reduction in travel cost are given in Table 38. However, these two types of gains are relatively smaller in amounts.

As far as the ROI of these schemes is concerned, district-wise estimated ROIs vary from 3.10 in case of Jamshoro to 9.90 in case of Sujawal (Table 39).These values should be carefully interpreted as the degree of productive utilisation of saved time may be only fractional.

Table 33. Impact of CPIs on travel time to work and market

Travel time to work/market	Larkana	Dadu	Kambar Shahdadkot	Tando M. Khan	Jamshoro	Sujawal	Matiari	Tando Allahyar
Reduction in travel time (minute)	14	17	19	15	20	20	23	15
% reduction in travel time	50	39	52	55	67	50	53	50
Number of visitors/day	46	41	59	43	30	64	24	28
Av. no. of working days	300	300	300	300	300	300	300	300
Time saving/year (minutes)	372,600	408,333	672,750	382,500	360,000	762,000	320,625	255,000
Time saving/year (in hours)	6,210	6,806	11,213	6,375	6,000	12,700	5,344	4,250
Time saving/year (in days)	776	851	1,402	797	750	1,588	668	531
Average daily wage rate	550	600	600	600	600	600	600	567
Total saving/annum/CPI (PKR)	426,938	510,417	840,938	478,125	450,000	952,500	400,781	301,042
Ratio of time saved to CPI cost	33.39	82.85	68.22	116.62	151.43	196.19	140.50	86.92

Table 34. Impact of CPIs on the travel time of women to work and market

Time taken to work/market for women	Larkana	Dadu	Kambar Shahdadkot	Tando M. Khan	Jamshoro	Sujawal	Matiari	Tando Allahyar
No. of women worker	8	8	8	8	10	9	8	9
Time saving/year	60,750	83,333	95,833	74,250	120,000	102,000	111,375	81,000
Women's time saving/year (hrs)	1,013	1,389	1,597	1,238	2,000	1,700	1,856	1,350
Women's time saving/year (work days)	127	174	200	155	250	213	232	169
Average daily wage rate	550	600	600	600	600	600	600	567
Total saving/annum (PKR)	69,609	104,167	119,792	92,813	150,000	127,500	139,219	95,625

Table 35. Impact of CPIs on the transport cost for work and market

Work/market -transport cost	Larkana	Dadu	Kambar Shahdadkot	Tando M. Khan	Jamshoro	Sujawal	Matiari	Tando Allahyar
Decrease in average transport cost (PKR)	160	175	208	125	20	100	125	167
% decrease in average transport cost (PKR)	48	42	50	42	33	29	42	45
No. of visitors to market/work	46	41	59	43	30	64	24	28
Average no. of working day	300	300	300	300	300	300	300	300
Av. total cost saving/CPI/year (PKR m)	4.416	4.288	7.313	3.188	0.360	3.810	1.781	2.833
Av. total cost saving/CPI/year/per son	96,000	105,000	125,000	75,000	12,000	60,000	75,000	100,000

Table 36. Impact of CPIs on travel time to hospitals/health centres

Travel time to hospital	Larkana	Dadu	Kambar Shahdadkot	Tando M. Khan	Jamshoro	Sujawal	Matiari	Tando Allahyar
Decrease in av. time to reach hospital	29	31	32	9	20	49	33	33
% decrease in av. time to reach hospital	50	57	53	17	67	71	59	63
Number of visitors /week	7	4	5	3	5	6	4	3
Number of persons accompanying patients	4	2	3	2	3	3	2	2
Time saved/annum (in minutes)	11,008	5,612	8,782	1,479	5,200	14,014	5,915	5,200
Time saved/annum (in days)	23	12	18	3	11	29	12	11
Average daily wage rate	550	600	600	600	600	600	600	567
Total saving/annum (PKR)	12,614	7,015	10,978	1,848	6,500	17,518	7,394	6,139

Table 37. Impact of CPIs on travel time to hospitals/health centres for women

Travel time to hospital (for women)	Larkana	Dadu	Kambar Shahdadkot	Tando M. Khan	Jamshoro	Sujawal	Matiari	Tando Allahyar
Number of women visitors	3.60	4.17	4.17	4.25	4.00	3.50	3.50	4.33
Number of persons accompanying patients	1.80	2.08	2.08	2.13	2.00	1.75	1.75	2.17
Time saved/annum	5,429	6,681	6,861	1,934	4,160	8,918	5,915	7,511
Time saved/annum (in work days)	11	14	14	4	9	19	12	16
Average daily wage rate	550	600	600	600	600	600	600	567
Total saving/annum (PKR)	6,221	8,351	8,576	2,417	5,200	11,148	7,394	8,867

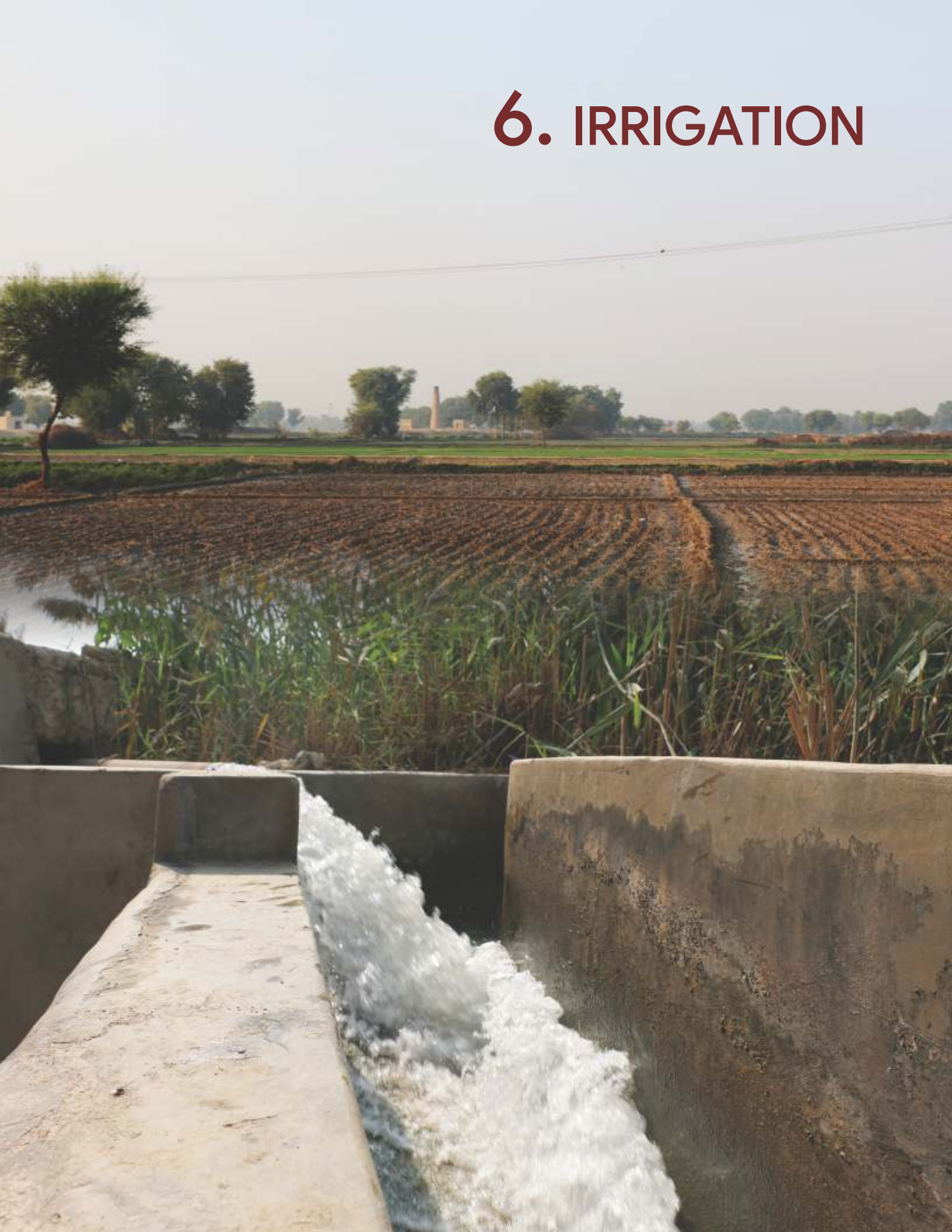
Table 38. Impact of CPIs on hospital-transport cost

Hospital-transport cost	Larkana	Dadu	Kambar Shahdadkot	Tando M. Khan	Jamshoro	Sujawal	Matiari	Tando Allahyar
Decrease in av. transport cost	195	175	183	175	200	50	175	133
% decrease in av. transport cost	51	44	48	50	40	33	47	57
No. of visitors to hospitals	7	4	5	3	5	6	4	3
Av. total cost saving/CPI/year	148,044	63,700	101,689	59,150	104,000	28,600	63,700	41,600

Table 39. Total amount of gains and ROI of roads and bridges CPIs

Total savings	Larkana	Dadu	Kambar Shahdadkot	Tando M. Khan	Jamshoro	Sujawal	Matiari	Tando Allahyar
Travel time to market/workplace	426,938	510,417	840,938	78,125	450,000	952,500	400,781	301,042
Travel time to hospitals	12,614	7,015	10,978	1,848	6,500	17,518	7,394	6,139
Transport cost to work/market (PKR m)	4.416	4.288	7.313	3.188	0.360	3.810	1.781	2.833
Transport cost to hospital	148,044	63,700	101,689	59,150	104,000	28,600	63,700	41,600
Total saving/CPI (PKR m)	5.004	4.869	8.266	3.727	0.921	4.809	2.253	3.182
Av. No. of beneficiary HHs	152	62	163	130	100	75	61	120
Total saving/beneficiary (PKR)	32,875	78,316	50,816	28,666	9,205	64,115	36,786	26,518
Average cost of CPI (PKR m)	1.279	0.616	1.233	0.410	0.2971	0.486	0.285	0.346
ROI of CPI	3.91	7.90	6.71	9.09	3.10	9.90	7.90	9.19

6. IRRIGATION



6. IRRIGATION

6.1. Overview of CPIs

The irrigation schemes launched by the project include lift irrigation, expansion and lining of water courses, and rehabilitation of natural water streams. However, lift irrigation dominates in terms of number. The programme has initiated 33 schemes related to irrigation sector out of which 23 have been completed. These schemes (including completed and ongoing) are benefitting and going to benefit 781 households, with average of 24 households/CPI. The average investment of the CPIs is estimated at PKR 18,362 per beneficiary household. District-wise comparison is given in Table 40.

Table 40. An overview of district-wise irrigation schemes

	Jamshoro	Kamber Shahdadkot	Larkana	Total
No of scheme initiated	2	1	30	33
No of scheme completed		1	22	23
No. of beneficiary HHs	124	29	628	781
Cost of schemes (PKR m)	1.64	0.78	11.92	14.34
Average cost/CPI (PKR)	821,326	778,071	397,321	434,556
Average HHs/CPI	62	29	21	24
Average cost/HH (PKR)	13,247	26,830	18,980	18,362

6.2. Relevance

Improvement of the irrigation water supply infrastructure is an effective measure to increase crop production and income of the farmers. The programme area as a whole, is a perennially canal irrigated area. With the passage of time, however, supplemental water supplies from tube wells/pumps have made some contribution to the expansion of cropped acreage and productivity of this region. Generally speaking, the soils of the area are fertile and highly responsive to farm production inputs, of which water is essentially the key input. Among others, one major deficiency towards achieving sustainable break-through in agricultural production has been the general deficiency of canal water supplies. Deficiency of canal water supplies is further aggravated by way of losses from canal head to the farmers' fields mainly because of ill-maintained water course structures. In view of the fore-going discussion, the CPIs under the SUCCESS Programme, is a key measure to boost agricultural production of this area.

The sample of irrigation CPIs included two tube well scheme. These scheme were implemented in Larkana district. FGDs with beneficiaries revealed that the irrigation schemes were demand driven, as they were the felt needs of the beneficiaries. The relevance of irrigation CPIs was endorsed by the participants of the FGD. They said the scheme of tube well was badly needed for the cultivation of crops, as canal water was inadequate. They confirmed that the decision of selecting tube well scheme was reached by consensus.

One area which was somehow overlooked in case of tube wells is that the designs did not have a provision of pond for animals to drink.

6.3. Technical Assessment

6.3.1. Implementation

6.3.1.1. Design vs Actual Specifications

The technical assessment team verified the actual specification of the complete scheme with designed specification available in the project files and found that the actual specification were matching with designed specification (Table 41).

Table 41. Irrigation schemes – design vs actual specifications

VO Name	Length of Pipe (ft)	Diameter of Pipe (ft)	Tube well Depth (ft)	Tube well bore (ft)	Motor capacity (ft)	Pump capacity Litre/sec
Abdullah Lashari	30	6	100	10	25 HP	2
Mulan Kalhoro	22	6	120	8	25 HP	2.97

6.3.1.2. Cost Performance

The analysis of the available data shows that the programme has initiated 33 irrigation schemes out of which 23 irrigation scheme have been completed while work on the remaining 23 irrigation schemes are in progress. Technical assessment team visited four-sampled schemes out of which two had been completed while the remaining two irrigation schemes were under construction. All the visited schemes were tube well. The average cost of the schemes was around Rs 429,938 out of which Rs 411,338 were provided by RSPs while the community contributed 5% of the total cost (see details in Table 42).

Budgeted Vs Actual expense: Both CPIs were completed within the approved project budgets.

Financial management: The technical assessment team found that the VO had formed an audit committee consisting of two well educated VO members. The community members told that it helped in ensuring transparency in funds utilisation. Community members reported that on their request a training programme on financial literacy had been planned and was soon going to be organised.

Table 42. Irrigation schemes – cost breakups

VO Name	District	Total Project Cost	RSP Share	Community Share	%age Community Share	Status
Abdullah Lashari	Larkana	376,682	358,745	17,937	5%	Completed
Mulan Kalhoro	Larkana	405,059	393,261	11,798	5%	Completed
Labono	Larkana	466,201	444,001	22,200	5%	Ongoing
Waris Dino Machi	Larkana	471,810	449,343	22,467	5%	Ongoing
Average		429,938	411,338	18,601	5%	

6.3.1.3.Schedule Performance

The planned and actual dates of start and completion of the irrigation CPIs were missing in the files. The both CPIs completed with delay of less than one year. The reasons of the delays were conflicts in the area and delays in funds disbursements from the RSP.

6.3.2. Operation and Maintenance

6.3.2.1. Fully Functional vs Non-functional CPIs

The assessment team visited two CPI schemes and found both fully functional. The operation and maintenance of both the CPIs were good and there were no water losses observed and recorded and there was no physical damage of the CPIs as well. The VOs have formed three member operation and maintenance committee who are responsible for operation and maintenance of the completed CPI scheme. They have opened the operation and maintenance account in the bank. The committee members said, *"for the first time, the women visited in a bank to open the maintenance account"*.

6.3.2.2. Operation and Maintenance Arrangements

The VO members confirmed that the materials were purchased by the project committee members. They visited the market and purchased the materials while the engineers verified the quality of materials.

6.4. Social Impact

The irrigation scheme has, as reported by the participants of the FGD, generated the following social benefits:

- **Women engagement in agriculture:** Tube well has enabled the farmers (all were hares) to bring more area under cultivation and grow more crops (i.e. increasing the cropping intensity) on their existing field, hence, farming activities increased. Eventually, women's engagement in farming has increased. Women in village Channa, Larkana reported that with the availability of additional irrigation water, they had started growing vegetables for home consumption.
- **Unemployment rate:** As mentioned above, the irrigation schemes have helped in increasing area under cultivation and increasing cropping intensity in some cases such as village Abdullah Lashari, Larkana, creating more opportunities for agriculture labour. Eventually, more labour has been engaged in farming, reducing unemployment rate in the communities.
- **Access to improved drinking water:** The irrigation CPIs have also reportedly helped in improving the access of communities to safe drinking water. The water quality had been tested from the water testing labs. For example, the community of village Abdullah Lashari, Larkana informed that they were using tube well for supply drinking water to their community as well.
- **Political empowerment:** An indirect outcome of the irrigation scheme is that women from Abdullah Lashari, Larkana have recognised the need of political empowerment. Some of them told that they were waiting impatiently for the next Local Body Elections so that they could contest for the positions of councillors.

6.5. Economic Impact

The irrigation schemes, as data shows, have produced many economic gains for farmers. The participants of the FGDs reported that the irrigation schemes had produced positive impact on their family incomes. The increase in household incomes was attributed to increase in crop yield and expansion in the area under cultivation. It happened mainly because of the availability of additional irrigation water. The results of data analysis presented in and substantiate these claims. The increased income is expected to help the beneficiaries to offset the impact of inflation and to pay more attention to education of their children.

Available data obtained from the communities' shows that the beneficiary farmers has grown wheat, rice and vegetables. However, vegetables were grown on small areas and were used mainly for home consumption. Hence, we included only two crops i.e. wheat and rice in the economic analysis. The CPIs, i.e. tube wells supplemented the canal water available to them, which enabled each community increase area under crops, on average, by 18 acres. Additional availability of water did impact the yields of the two crops. The average yields of wheat and rice crops increased by 5.5 maunds/acre and 2.5 maunds/acre, respectively. One of the community members told that relatively bigger increase in the yield of wheat crop was because canals were usually closed for some weeks in December and January, which affected the availability of water for the wheat crop each year in the past. As tube wells has helped in filling the gap, hence, wheat yield increased.

The economic impact of the Irrigation CPI -VO Channa Larkana

In order to make the existing girl school located in the village, the women of Village Channa, Larkana approached the Education Department, as the school had been closed because of the transfer of the teacher. The women respondents disclosed that the VO president was planning to contest the next local body election. Responding to the question, how they will counter the influence of their landlord in the election, the VO members said, *"we have told our men that it is your job to deal with the land lard, and we will contest the election, no matter if the heaven falls"*.

On overall basis, the annual income of each of 22 beneficiary households/CPI has increased by PKR 27,157 because of the CPI schemes while cumulative gains of the CPIs for each of the beneficiary community is estimated at PKR 1.031 million, with ROI of 2.7.

The irrigation schemes have also been reported to have produced a number of indirect effects, which include increase in seasonal employment of labour, increase in village economy, and improved nutrition, the planned and actual dates of start and completion of the irrigation CPIs were missing in the files.

Table 43. The impact of irrigation CPIs on communities' economic wellbeing

	Wheat	Rice	Total
Post project average area under crop / CPI (acres)	83	83	-
Average size of increased area under cultivation (acre)	18	18	-
Base yield (in maunds)	31	33	-
Increase in yield (in maunds)	5.5	2.5	-
Total production on new area (in maunds)	639	621	-
Increased production on previous area (in maunds)	358	163	-
Gross increased production (in maunds)	996	784	-
Average no. of HHs	19	19	
Gross increased production/HH (in maunds)	52.43	41.25	-
Price /maund	1,800	1,900	-
Total value of increased production/ HH	94,382	78,375	172,757
Additional expenditures/HH			145,600
Net gains/HH			27,157
Net returns/month/HH			2,263
Total net gains/CPI			1,031,950
Total cost / CPI			376,003
ROI			2.7

5. ALTERNATE ENERGY

7. ALTERNATE ENERGY

7.1. Overview of CPIs

The renewable energy schemes include solar systems for water pumps and lighting. The Programme has launched 47 solar energy (i.e. alternate energy) schemes with the estimated cost of about PKR 26 million. The average cost of schemes, on overall basis, comes to PKR 550,431. However, it varies from district to district with highest in Kambar Shahdadkot (PKR 1,042,260) and lowest in Dadu (PKR 414,970). The average cost of the solar energy schemes per beneficiary household also varies drastically, from just PKR 4,220 in Dadu to PKR 12,248 in Sujawal, approximately,

Out of the all 47 schemes, 13 have been completed, while others are at different stages of completion.

Table 44. An overview of district-wise alternate energy schemes

	Dadu	Jamshoro	Kambar Shahdadkot	Larkana	Sujawal	Tando Allahyar	Total
No of scheme initiated	3	6	2	5	29	2	47
No of scheme completed	2	6		5			13
No. of beneficiary HHs	295	783	235	453	1,007	124	2,897
Cost of schemes (PKR m)	1.24	4.01	2.08	4.78	12.33	1.42	25.87
Average cost/CPI (PKR)	414,970	668,581	1,042,260	955,666	425,310	708,500	550,431
Average HHs/CPI	98	131	118	91	35	62	62
Average cost/HH (PKR)	4,220	5,123	8,870	10,548	12,248	11,427	8,930

7.2. Relevance

The participants of the FGD held in Village Mir Sai, Larkana acknowledged that the scheme was identified through using participatory approach. One of the women participants of FGD from Mir Sai village, Larkana told that lighting was badly needed especially at nights to enable them to undertake households activities. They added that the community people were so poor that they did not have enough money to purchase solar panels and batteries on their own, hence, they needed support.

7.3.Technical Assessment

7.3.1. Implementation

7.3.1.1. Designed vs Actual Specification

The technical assessment team found that the actual specifications of solar energy CPIs matched with the designed specifications. However, the team didn't find a proper earth system anywhere.

Table 45. Alternate energy schemes – designed vs actual specifications

	Designed	Actual	Difference
Solar Panel Capacity	11 KW	11 KW	0
Invertor	11 KW	11 KW	0
AC/DC Wiring and Protection (6 mm)	150 ft	150 ft	0
AC/DC Wiring and protection (10 mm)	150 ft	150 ft	0
Mounting Structure	4	4	0

7.3.1.2. Cost Performance

Two sampled renewable energy CPIs, - one in Larkana district and other in Jamshoro district were visited. Both schemes were completed within the approved cost estimates. Cost details along with number of beneficiaries are shown in . The both CPIs were completed within the approved budgets.

Table 46. Alternate energy schemes – costs and beneficiaries

VO Name	District	Total Project Cost (PKR)	RSP Share	Status	Community Share (PKR)	Number of Beneficiaries (PKR)
Dua	Jamshoro	993,880	993,880	Completed	29,816	130
Mir Muhammad	Larkana	653,181	653,181	Completed	19,595	58

7.3.1.3. Schedule Performance

Those two CPIs completed as per the planned schedule. However, the planned and actual dates of start and completion were missing in the files of the CPIs, which were visited by the technical assessment team.

7.3.2.Maintenance

7.3.2.1. Functional vs Non-functional CPIs

As mentioned earlier, the technical assessment team visited two sampled renewable energy CPIs, -one in Larkana district and other in Jamshoro district and both were found fully functional.

The participants of FGD in Mir Sai, Larkana told that the project had trained two community persons to conduct monitoring of solar schemes. They told that women were visiting home to home to ensure that all installed switches were working properly. They added that some male members knew how to replace wires and solar panels, hence, the beneficiary households were not facing any difficulty in operating and maintaining the solar panels. They further informed that in case of any error or the damage in the line, they used to register a complaint with the VO members and community level resources were mobilised to correct the defects otherwise, a technician used to be called from the city.

7.3.2.2. Operation and Maintenance Level

In terms of the operation and maintenance, the CPI visited at Larkana was found fully maintained which means people had access to reliable clean energy without any physical damage. However, the CPI at Jamshoro was in the state of partially maintained which means the physical condition was poor and there was 25% reduction of clean energy supply, which needed timely repair. Although, the renewable CPIs were well implemented according to the design shown in the CPI files and the people had access to reasonable supply of clean energy, however, without proper maintenance and collection of users' fee, the system's generation capacity and reliable supply of electricity were at risk. Although, the maintenance account was maintained at bank depositing 3% project cost but such types of scheme where wear and tear was very high, the maintenance fund was not enough.

7.4. Social Impact

The participants of the FGD in village Mir Sai, Larkana confirmed that many of the houses of the village had got the connection of solar energy. They reported that the solar energy scheme was producing number of benefits for the people of the village, as briefly described below:

- **Lifting of groundwater:** Dug well had been installed for lifting ground water in Jamshoro, which was being used for drinking purpose.
- **Cooking after sunset:** The participants of the FGD reported that the availability of solar energy had provided them a facility to cook food even after sunset, eventually, they had some additional time available during the day hours, which they were using for other productive purposes. They termed it a big [social] change for women. One of the participants of the FGD added, *"In fact, it had never been easy to cook food after sunset and such need used to arise when any guest would come in or after evening hours"*.
- **Homework of children:** The availability of solar lights has also affected the education of children. The participants of village Mirsai, Larkana told that the light had enabled students especially school going children to devote additional time to their studies. One of the women participants added, *"It gives me real happiness when I see my kids doing school homework at night. It is a real change"*.
- **Phone batteries:** The scheme had also made it easier for village people to charge the batteries of their mobile phones. They reported that earlier they had to travel to the nearby villages or city area on daily basis to charge the batteries of their mobile phones.

7.5. Economic Impact

The participants of FGDs held in the village Mirsai, Larkana and the village Ali Murad, Tando Allahyar said that earlier every house, on average, had to buy kerosene oil on almost daily basis to keep their lantern on, whole night. It used to cost every house for about PKR 900 per month. With the availability of solar energy connection, their monthly expenses on the purchase of kerosene oil had reduced to PKR 75 only, providing a saving of about PKR 825/household/month. Secondly, the availability of lighting had enabled them to do some economic activities for additional earning. The participants reported that on average each household's monthly income had increased by PKR 1,100.

The average annual total economic gains of the sample communities are estimated at PKR 1.94 million while the average investment made by the project on the two schemes is PKR 0.82 million. In other words, all benefits expected to be generated by these schemes in a period of just one year, are expected to exceed the entire cost, with a benefit to cost ratio of 2.36. Hence, the schemes are economically viable.

Table 47. Economic analysis of alternate energy schemes

	Costs and benefits description	Tando Allahyar	Larkana	Average
1	Cost of scheme	993,880	653,181	823,530
2	No. of beneficiary households	130	58	94
3	Average expenses on kerosene oil before the scheme	1,000	800	900
4	Average expenses on kerosene oil after the scheme	100	50	75
5	Monthly savings from kerosene oil [4 -2]	900	750	825
6	Monthly savings for all HHs [2 x 5]	117,000	43,500	77,550
7	Increase in monthly income due to additional activities / HH	700	1,100	900
8	Increase in monthly income due to additional activities (all HHs) [2 x 7]	91,000	63,800	84,600
10	Total economic gains (all HHs)	208,000	107,300	162,150
11	O&M expenses	-	-	-
12	Total economic gains (PKR) for the community for one year	2,496,000	1,287,600	1,945,800
13	Total annual gains per CPI cost [10 / 1]	2.51	1.97	2.36

8. GENERAL AND INDIRECT IMPACTS OF THE SCHEMES

8. GENERAL AND INDIRECT IMPACTS OF THE SCHEMES

Other than the CPI specific social and economic benefits of schemes, the SUCCESS programme has produced a number of general and indirect social and economic benefits too, as identified through the FGDs with the beneficiaries. The benefits are briefly described below:

- VOs have developed village development plans. It itself is a notable achievement, as it has set the direction of the development efforts of the communities. The VOs may be facilitated to further strengthen their capacities to continually improve their plans.
- Having a computerised national identity card (CNIC) is a right of every citizen of Pakistan who is at least 18 years old. A citizen not having his/her CNIC cannot avail benefits such as opening bank account, getting loans, obtaining passport, owning land etc. The programme made CNIC as a basic requirement for becoming member of a CO. It was soon found that a large number of people especially women were not having them. The programme staff facilitated them to get their CNICs. A respondent of Village Laal Faqeer Bahrani, district Tando Allahyar confirmed it by saying that, *"earlier most of us didn't have CNICs and 'B' forms. The project staff made us aware of their importance in life. Now we have got them."*
- Another indirect benefit of the scheme reported by the communities is vaccination. A community member of Tando Allahyar said, *"The staff educated us about the need of vaccination against Corona. Upon getting awareness, we went to the hospital on our own and got ourselves **vaccinated**"*. Vaccination campaigns were reported by the participants of almost all FGDs.
- **Women empowerment:** The Programme has facilitated women to gain confidence, improved their external linkages and enhanced their managerial skills. The approach of RSPs deployed in the processes of identification, planning and construction of the CPI has enhanced the confidence of village people especially women. The women VOs members of Thoro Khan (Sehwan) said, *"We are collecting money and saving it in the bank account of the VO. It is a unique experience. We feel like we have gained power"*. One of the respondents added, *"We keep our savings in the First Micro Finance Bank. We had never been to any bank before. The project has enabled us to get this facility."* Another women added, *"In the beginning we felt shy and lack of confidence, but now we go to the bank without any hesitation"*.
- The capacity of the VOs has been developed to develop their external linkages. For example, the participants of FGD in Bachu Khaskeli, Jamshoro told that they had talked to different government and non-government organisations for establishing a school for girls. Similarly, the community of Saen Dino Malah, Jamshoro reported that they had visited Deputy Commissioner (DC) office for the solution of their community problems.
- The project has boosted the confidence of the communities and has encouraged them to look for avenues for more development activities. For example, the community of village Goth Ali Murad Barejo, Jamshoro reported that although the water supply scheme had helped to reduce diseases in the village, however, they were yet in need of exclusive initiatives in the domain of health.
- The programme has managed to develop the managerial capacities of VOs especially women to a considerable extent.

9. CONCLUSION

9. CONCLUSION

9.1. Relevance of the CPI Component

9.1.1. Relevance with Pakistan's Vision and Global Commitments

The SUCCESS Programme is aligned with the Pakistan's vision, and the priorities of the Government of Sindh especially Poverty Reduction Strategy[7]. Besides, it is also aligned with the international commitments too.

Pakistan's Vision 2025 (https://www.pc.gov.pk/uploads/vision2025/Pakistan-Vision-2025.pdf) and Poverty Reduction Strategy of Sindh[8] emphasise upon the need of eradication of poverty, development of rural areas and providing basic necessities of life to rural people. The strategy also underlines the importance of the empowering communities in the process of their development.

The SUCCESS programme is going to contribute towards achievement of the targets of at least six SDGs.

- **SDG 1 - No poverty:** Irrigation CPIs directly help in increasing the income of people through increasing crops yield and production
- **SDG 3 - Good health and wellbeing:** Water supply schemes, drainage and sanitation schemes and road, bridges schemes and street pavement CPIs can reduce diseases and improve access to health services.
- **SDG 5 - Gender equality:** All CPIs have a potential to improve gender equality.
- **SDG 6 - Clean water and sanitation:** The schemes of drinking water supply are expected to contribute toward the achievement of SDG 6.
- **SDG 7 - Affordable and clean energy:** The CPIs of alternate energy especially solar energy is helping in the achievement of SDG 7, as it can increase access of people to clean and affordable energy.
- **SDG 10 - Reduced inequalities:** The CPIs of irrigation and road and bridges are expected to reduce inequalities.

The CPIs are not only aligned with the Pakistan's vision and with the global commitments but are also relevant to the needs of the communities. The assessment team assessed the relevance of the schemes to the needs of the beneficiary communities through discussions with focus groups. The participants of all FGDs clearly highlighted the need of the schemes. One of the main reasons behind high rating of the relevance of schemes is that a participatory and bottom-up approach was used in the identification and execution of schemes, and operation and maintenance of the CPIs are the responsibility of the local people. They indicated that their VOs were empowered to identify schemes based on their own needs and within their own potential to implement and maintain.

[7] https://pnd.sindh.gov.pk/storage/resourcePage/XaScAszExMCKfDssSqp1aNAGw2qfYEwCT1RW1OSz.pdf

[8] https://pnd.sindh.gov.pk/storage/resourcePage/XaScAszExMCKfDssSqp1aNAGw2qfYEwCT1RW1OSz.pdf

9.1.2. Consultation during the Identification/Selection of CPI Schemes

In a feudal rural setup such as in Pakistan women's participation in the meetings is less likely to happen. However, given that the SUCCESS programme is women-only and women-driven, the participants of almost all FGDs reported that they were fully involved in the whole project cycle of CPIs. Although, it was reported in a small number of FGDs that initially men resisted the participation of women in development activities, however, soon they got sensitised about the importance and need of women participation in the development process, eventually, the intensity of resistance quickly dwindled. At the end the male members allowed them to participate in the meetings.

9.2. Social Impact

9.2.1. Women Empowerment

Women empowerment is one of the major social benefits of the SUCCESS programme. The process of community mobilisation was the core ingredient of the CPI process including identification and implementation of all CPI schemes and operation and maintenance of completed CPI schemes. All FGDs highlighted that women participating in the programme activities represented poor and less privileged communities. The confidence of women exhibited during FGDs provided an evidence for their ability to participate in such activities. Women are also managing Community Investment Funds. For the first time, women have taken local level leadership positions. Women leaders of community institutions are acting like role models for younger girls. Women's empowerment will have inter-generational impacts as well.

In most of the FDGs, the women participants reported that they had been trained in monitoring and that they had conducted supervision visits of the CPI schemes. A good engagement, participation and mobilisation were observed in all FGDs with the women. In almost all FGDs the participants informed the assessment team that the woman are playing key role in the maintenance of the CPIs.

During the FGDs women reported increase in their confidence and skills especially for holding meetings, decision making, and procurement of materials, labour management and overall CPI construction management. Some of the women groups have approached government line departments, e.g. Education Department to access services. Even, in one community, it was reported that on the request of the community a training on financial literacy was being arranged.

9.2.2. Gender Disparities

The results of the study show that the project has placed considerable emphasis on reducing poverty and boosting local economies. Strong evidence is available for declining gender disparities. No one in the programme area villages had ever expected that one day women of the area would be mobilised, organised and have leadership positions, and play a key role in the project cycle of CPIs, including undertaking the job of procurement of construction materials. However, more efforts are needed to sustain the momentum generated by the programme. More importantly, the assessment found that women were well aware of their basic rights. Comparatively, women now have access to and control over resources and have developed voice through social mobilisation. For the first time, they are making decisions about local development. The intention of one VO President to context the next local body election provides further evidence of weakening gender disparities.

9.2.3. Health

The drinking water supply schemes, street pavements and drainage and sanitation schemes have created positive effects on the behaviour of women. Almost all such communities have been reported that diseases have reduced. The villages where bridges and roads have been constructed, the access of people to health and education centres, as well as to local markets, has improved. Improvements in hygienic conditions were also reported in some communities. Above all, the assessment teams found that the bar of awareness about health and hygiene was high, invariably in all CPIs implementing villages.

9.2.4. Education

The CPIs of roads and bridges have increased access to schools. Since women have become more aware of the importance of education, they have reportedly played an instrumental role in the amelioration of enrolment in schools. Number beneficiary communities reported increase in girl's enrolment. One of the community representatives also informed that teacher's attendance in the village school had improved due to better accessibility.

9.2.5. Mobility

The CPIs of roads and bridges and street pavement have improved the mobility of people in general and women in particular. Even in one village, it was reported that due to the construction of bridge, their relations with their relatives living on the other side of the canal had been strengthened. Market access has improved.

9.2.6. Indirect Social Benefits

The SUCCESS programme has produced a number of indirect social benefits, as briefly described below:

- The programme has facilitated community institutions (COs/VOs/LSOs) in developing linkages with government and non-government organisations for getting access to better social services. For example, one of the communities proactively approached government and non-government organisations for establishing a school for girls in their village.
- As the programme increased women participation in different activities and improved their mobility. Programme's female staff played a key catalytic role in mobilising, organising and capacitating rural women. The fact of engagement with all community stakeholders, including men, contributed to the acceptance of women-only social mobilisation. None of the participants of the FGDs reported any case of harassment faced by them.

9.3. Economic Impact

The economic analysis of CPIs shows that all of the sampled CPIs representing all types have produced substantial economic benefits. The economic benefits include saving of time of traveling, reduction in transportation and health expenditures and increased crop production. The ROI of CPIs varies from category to category and district to district. The ROIs of drinking water supply schemes range from 6.71 (in case of Dadu) to 19.30 (in case of Kambar Shahdadkot). The ROIs for roads and bridges CPIs also seem high: ranging from 3.10 in case of Jamshoro to 9.90 in case of Sujawal. As far as irrigation schemes are concerned, they are the schemes which have directly contributed to the economic wellbeing of the intended beneficiaries. On overall basis, the annual income of each of 22 beneficiary households/CPI has increased by PKR 27,157 because of the CPI schemes while cumulative gains of the CPIs for each of the beneficiary community is estimated at PKR 1.031 million, with ROI of 2.7. Since the sample included CPIs from only one district, hence, district-wise comparison is not possible. On the other hand, the ROIs of drainage and sanitation schemes were relatively on lower side, varying from 0.71 in Dadu to 1.85 in Tando Allahyar. In order to boost and sustain the economic gains, it would be necessary to provide additional technical and financial support to women community institutions. The support may include connecting women to technical and vocational training centres, financial institutions, and other related institutions, enabling them to develop their skills and strengthen their income generating activities.

9.4. Technical Assessment

9.4.1. The Quality of CPIs Construction

Women participants showed satisfaction with the quality of CPI interventions. All of the FGDs participants reported to have the knowledge of the committees constituted for the implementation of the schemes. The participation of women in the construction sector is not considered culturally appropriate; hence, women's direct participation in the implementation/construction phase remained slightly below the targets, however, above the level of expectations. In most of the cases, they did the job of procurement and monitoring of the implementation. Besides, they cooked lunches and prepared teas for the men who were working on the schemes. It is an encouraging sign that women participants of most of the FGDs recognised it their contribution in the construction work.

Women participants reported that at least two women from each community had received training on how to monitor the project. However, the women participants of all FGDs told that they had visited their schemes site several times to see the physical progress.

Most of the schemes were completed within the stipulated times and approved budgets. The actual specification of CPIs in almost all of the cases matched with the designed specifications. Some exceptions are definitely there. Some CPIs did suffer from time overruns; however, the chief reasons were conflicts among communities.

9.4.2. The Quality of Maintenance

The technical assessment team found that almost all of the CPIs (three out of 65 – one completely non-functional (water tank) and two partially functional) were fully functional. The participants of all of the FGDs reported that their COs had pooled money (through community contributions) for the maintenance of the

infrastructure created through the schemes. Even in one of the FGD, the participants told that the funds they had pooled had been kept as reserves and they were contributing finances for repair and maintenance work as and when needed.

All of the FGDs participants were aware of the committees formed to look after the matters related to operation and maintenance of the schemes. Women participants reported that at least two women from each community received training on how to conduct the maintenance work. Even in some communities where street pavement schemes were implemented, women were reportedly performing the tasks of cleaning their streets on daily basis. Similarly, in one village of Larkana where solar energy CPI was implemented, the women participants of the FGD reported that women were visiting home to home to ensure that all installed switches were working properly.

9.5. Sustainability

The major risks for the sustainability of the CPIs are:

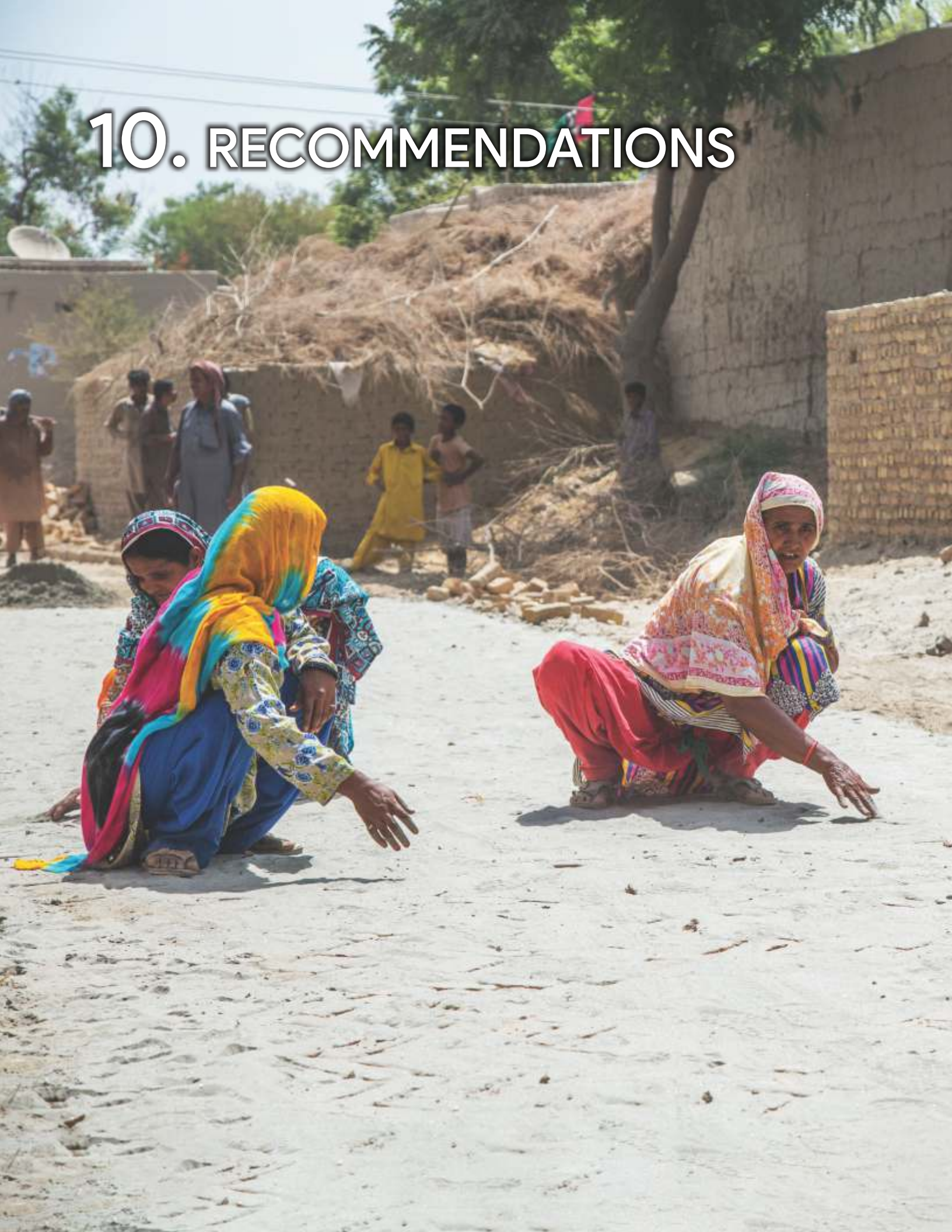
- Lack of financial capacity of the village people and also lack of motivation to finance operation and maintenance of the CPIs might create risks of poor maintenance and ultimately lead to no functionally of the CPIs. The RSP teams, specially the SOs, would need to put their best to ensure VOs come up with user fees to create funds for O/M so the sustainability of the CPI is ensured which is vital.
- Community conflicts is another potential threat which can jeopardise CPIs completion operation and operation as well. The CPIs which are at greater risks are solar energy CPIs, drainage and sanitation CPIs and irrigation CPIs.
- Lack of capacity of communities to repair the CPIs. Hiring the services of a technician from the distant market is often very costly and unaffordable for the beneficiary households. Unless the VO members are trained, there will be constant risks of poor supply of clean electricity and even not functioning in the future.

9.6. Lessons Learned and Best Practices

Multiple level of technical oversight ensured the implementation of the scheme from the field engineer which is supervised by district engineer and regional engineers. The monitoring and evaluation section of the SUCCESS programme also carried out the function of quality assurance.

The technical assessment team found that the VO had formed an audit committee consisting of two well educated VO members. The community members told that it helped in ensuring transparency in funds utilization.

10. RECOMMENDATIONS



10. RECOMMENDATIONS

The assessment study has shown that: 1) the CPI schemes were planned, implemented and managed well by women activists under the umbrella of women organisations; 2) women were fully involved in the identification and planning of CPIs; 3) they were actively engaged in the procurements of materials/machinery; 4) they performed the function of oversight during the process of implementation; 5) they proactively played their role in the operation and maintenance of the schemes; and 6) most of the completed CPIs were found fully functional at the time of the assessment; and 7) the CPIs had started producing a number of socio-economic benefits. However, the assessment team feels that there is still some room for improvement and in view of that recommends the following actions for consideration during the remaining phase of the project and in the future:

	Recommendations	Priority	Importance
	Women Empowerment		
1.	Since behavioural change involves a long term process and consistent efforts, hence RSPs are suggested to keep focusing on women empowerment.	High	High
2	The programme had demonstrated notable success in the domain of developing women leadership development. In one location, women expressed their intention to contest in the next local elections. If timely voter education campaign is launched, it will further energise them. It can mark the beginning of a big social change.	High	High
3	Since the project is for COs while the role of implementation lies with VOs members. The VOs member who represent the beneficiary COs play active role in the scheme implementation while others lose interest and do not participate actively. Therefore, RSPs may shift the management role of CPIs from VOs to COs.	High	High
	Selection of Schemes		
4	As per criteria, only one scheme is given to per VO. There are three to four COs in each VOs. Each CO submits three schemes to its respective VO. The VO members prioritise the schemes and select one of them and pass a resolution. Eventually, the members of the COs who do not fall among direct beneficiaries are likely to get disappointed. In view of this, the capacity of VOs in advocacy and communication should be further strengthened, so that they can explore opportunities with other organisations to satisfy their needs.	High	High
	Accessibility		
5	The assessment team found that in some areas, the water pumps were accessible for person with disabilities (PWDs) while in other areas they were not accessible. RSPs should ensure that all CPIs should be accessible to PWDs.	High	High

	Recommendations	Priority	Importance
	Technical		
6	Since some communities cannot afford to bring technicians of tube-well and solar energy from the city, hence, it is suggested that RSPs may train a group of community members, representing relevant categories of schemes, in technical areas.	Medium	High
7	Good practices adopted by the communities should be documented and widely disseminated. The examples of good practices are: 1) The programme and the community of village Channa, Larkana have developed women leadership to such an extent that the President of VO Channa in Larkana is planning to contest in the upcoming local government elections; and 2) water points have been made inclusive for PWDs.	High	High
8	The technical assessment of CPIs had identified some technical gaps (e.g. quality of compaction of road, lack of capacity of users to maintain infrastructures especially solar, drinking water and irrigation CPIs), weaknesses and opportunities for improving CPI planning, designs, implementation and operation and maintenance processes to ensure sustainability of the completed CPIs.	High	High
	Operation and Maintenance		
9	RSPs may develop some guidelines for the determination and collection of user fee for CPIs of solar energy. If user fee is not be imposed, it would become very difficult to sustain the CPIs.	High	High
	Capacity Building		
10	The procurement committees have been given orientations and they have utilised the learning well. However, they need more trainings on areas such as quality of material procurement and supply, documentation, transparency and accountability and networking. Besides, it is pertinent to point out that women participants of FGDs also demanded training in vocational skills, marketing skills and basic numeracy. Note: RSPs have already initiated Adult Literacy and Numeracy Skills component.	High	High
	Others		
11	In some villages, women played a catalytic role in making their schools functional. In order to further capitalise on such strengths of women, RSPs may explore funding opportunities for enhancing enrolment of out of school children.	High	High
12	The need for technical and social research based on monitoring feed back	Medium	High
13	The possibilities of land levelling should be explored for reduction of water usage in agriculture	Medium	High
14	Forestry should be promoted to reduce greenhouse gases and for use and sale of timber	Medium	High
15	Sindh Province is blessed with wind corridor, this energy source must be explore in programme district where possible	High	High

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Annex A: List of Staff Consulted

Sr. No	Name of Staff Met	Designation	Organisation
1	Fazal Saadi	Programme Manager SUCCESS	Rural Support Programme Network
2	Mr. Ghulam Mustafa Jamro	Programme Manager	National Rural Support Programme
3	Mr. Jai Shivani	Programme Manager	Thardeep Rural Development Programme
4	Mr. Jamal Shoro,	Programme Manager	Sindh Rural Support Organisation
5	Zohaib R. Soomro	Regional Engineer	Thardeep Rural Development Programme
6	Sikandar Sanam	Regional Engineer	Sindh Rural Support Organisation
7	Shoukat Hussain	Regional Engineer	National Rural Support Programme
8	District Social Mobilization Team	District Engineer Social Mobilisers	NRSP, TRDP and SRSO

Annex B: List of Sample Completed Scheme by Types and by Districts

Sr. No.	District	Tehsil	Union Council	VO Name	Village	Type of CPI	Sub Type
1	Jamshoro	Thanu Bola Khan	Dhamach	Areba	Bachu Khaskheli	Drinking Water Supply	Water Storage Tank
2	Dadu	Johi	Drig Bhala	Umeed	Nagar Dario	Drinking Water Supply	Hand Pumps
3	Larkana	Bakrani	NO. 36 Mahar Wada Dandano	Rajan Shah	Mir khan abro	Drinking Water Supply	DWHPs
4	Kambar Shahdadkot	Kambar	Koor Kamal-13	Abdul Wahid Chandio	Waryaso	Drinking Water Supply	DWHPs
5	Sujawal	Mirpur Bathoro	Kamaro	Kamaro	Haji Muhammad Mallah	Drinking Water Supply	Drinking Water Supply
6	Tando Muhammad Khan	Tando Ghulam Hyder	Yousif Chang	Bareji	Hamzo Leghari	Drinking Water Supply	Drinking Water Supply
7	Tando Allahyar	Chamber	Rawat Laghari	Chanbhera-3	Haji Ghulam Laghari	Drinking Water Supply	Drinking Water Supply
8	Larkana	Bakrani	NO. 26 Baqapur Naich	Abdullah Lashari	Shahnawaz	Irrigation	Lift Irrigation
9	Jamshoro	Thanu Bola Khan	Sari	Dua	Ali Murad Barejo	Renewable Energy	Solar System for Bore
10	Dadu	Dadu	Pir Tarho	Shahzeb	Kamal Khan Jhatyal	Renewable Energy	Solar Street Lights
11	Larkana	Dokri	No. 39 Wadi Wahni	Mir Muhammad Malano	Mirzai	Renewable Energy	Solar Street Light
12	Dadu	Dadu	Pir Shahnawaz	Subhan Allah	Samtani & Jat	Drainage and Sanitation	Latrines
13	Jamshoro	Manjhand	Amri	Laki Shah Sadar	Laki Shah Sadar	Drainage and Sanitation	Street Pavement & drain
14	Kambar Shahdadkot	Warah	Junani	Sada Bahar	Garhi Makoro	Drainage and Sanitation	Culverts

Sr. No.	District	Tehsil	Union Council	VO Name	Village	Type of CPI	Sub Type
15	Larkana	Bakrani	NO. 36 Mahar Wada Dandano	Moula bux kharos	Mahar wada	Drainage and Sanitation	PF Latrines
16	Tando Allahyar	Tando Allahyar	Dhingano Bozdar	Daro Qubi-3	Laal Faqeer Bahrani	Drainage and Sanitation	Drainage and Drainage and Sanitation
17	Tando Muhammad Khan	Buleri Shah Karim	Alou Katiar	Somarki-1	Sajan Soomro	Drainage and Sanitation	Drainage and Drainage and Sanitation
18	Matiari	Matiari	Odero Lal Village	Odero Lal Village-4	Latifabad	Drainage and Sanitation	Drainage and Drainage and Sanitation
19	Sujawal	Shah Bunder	Goongani	Amir Bux Jamali	Ismail Bhurgri	Drainage and Sanitation	Drainage and Drainage and Sanitation
20	Dadu	Mehar	Betto	Gul Muhammad Jatoi	Pateji	Roads and Bridges	Brick Pavement
21	Dadu	Dadu	Pipri	Sadori	Bilawal Khan	Roads and Bridges	brick Pavement
22	Jamshoro	Sehwan	Arazi	Bilawal	Tharho Khan Chutto	Roads and Bridges	Brick Pavement
23	Jamshoro	Kotri	Railo	Sahil	Sain Dino Mallah	Roads and Bridges	Street Pavement
24	Kambar Shahdadkot	Sijawal	Thoof Chousool	Bhag	Jaleel Kalhoro	Roads and Bridges	Brick Pavement
25	Kambar Shahdadkot	Nasirabad	UC Chaudero-1	Thariri Hashim	Thariri Hashim	Roads and Bridges	Brick Pavement
26	Larkana	Bakrani	NO. 29 Matto Qadir Bux Bhutto Quli	Abdullah Bhutto	Matto	Roads and Bridges	Brick Pavement
27	Larkana	Larkana	NO. 14 Lund	Arija Phero	Miani Nihal	Roads and Bridges	Brick Pavement
28	Sujawal	Shah Bunder	Ladiun	Inayat Pur	Muhammad Ismail Jat	Roads and Bridges	Roads and Bridges
29	Sujawal	Mirpur Bathoro	Kamaro	Moonjhri	Mureed Jarejo	Roads and Bridges	Roads and Bridges

Sr. No.	District	Tehsil	Union Council	VO Name	Village	Type of CPI	Sub Type
30	Matiari	Matiari	Bau Khan Pathan	Sultanpur-5	Ali Muhammad Chutto	Roads and Bridges	Roads and Bridges
31	Matiari	Saeedabad	Bhali Dino Kaka	Kaka-1	Khan Muhammad Ujan	Roads and Bridges	Roads and Bridges
32	Tando Allahyar	Chamber	Landhi	Sejhro-1	Aleem Thebo	Roads and Bridges	Roads and Bridges
33	Tando Allahyar	Jhando Mari	Shahpur Rizvi	Chacharki-3	Tando Soomro Stop	Roads and Bridges	Roads and Bridges
34	Tando Muhammad Khan	Tando Ghulam Hyder	Dando	Rangion-2	Allah Warayo Kandra	Roads and Bridges	Roads and Bridges
35	Tando Muhammad Khan	Tando Muhammad Khan	Digh Mori	Ghulam Muhammad Nizamani	Ghulam Muhammad Nizamani	Roads and Bridges	Roads and Bridges
36	Matiari	Matiari	Shah Alam Shah Ji Wasi	Shah Pur-3	Haji Shahmir Khoso	Roads and Bridges	Drainage and Drainage and Sanitation
37	Sujawal	Mirpur Bathoro	Hussain Pur	Kutkia Khirdahi	Rato Lashari	Roads and Bridges	Drinking Water Supply
38	Larkana	Bakrani	NO. 33 Madbahoo	Channa	Bakrani	Roads and Bridges	Lift Irrigation
39	Kambar Shahdadkot	Shahdadkot	Laghari	Benazeer	Kalar	Roads and Bridges	Culverts
40	Dadu	Dadu	Muradabad	Pirzado	Aathulo Nawab	Roads and Bridges	Brick Pavement
41	Dadu	Johi	Kamal Khan	Tamana	Ahmed Khan Jamali	Roads and Bridges	CC Street Pavement
42	Dadu	Dadu	Aminani	Imam Zadi	Dodo Khan Lund	Roads and Bridges	Brick Pavement
43	Dadu	KN Shah	Kakar	Roshni	Haji Abro	Roads and Bridges	Brick Pavement

Sr. No.	District	Tehsil	Union Council	VO Name	Village	Type of CPI	Sub Type
44	Dadu	Mehar	Butt Siraee	Chand Mari	Chand Mari	Roads and Bridges	Brick Pavement
45	Kambar Shahdadkot	Kambar	Kambar	Jian Abro-3	Khabiriro	Roads and Bridges	Brick Pavement
46	Kambar Shahdadkot	Nasirabad	Nasirabad	UC Chaudero-1	Laiq Pur	Roads and Bridges	Brick Pavement
47	Larkana	Dokri	Dokri	No. 44 Karani	Karani	Roads and Bridges	Brick Pavement
48	Larkana	dokri	Dokri	NO. 39 Wadi Wahni	Ghanghrko	Roads and Bridges	Tuff Paver
49	Larkana	Bakrani	Dokri	No. 32 Gud	Kanuri	Roads and Bridges	Brick Pavement
50	Larkana	Larkana	Larkana	No. 16 Ratokot	Talbani	Roads and Bridges	Brick Pavement
51	Larkana	Bakrani	Larkana	No. 36 Mahar Wada @ Dandano	Dandano	Roads and Bridges	Brick Pavement
52	Larkana	Bakrani	Dokri	NO. 32 Gud	Gud	Roads and Bridges	Retaining wall
53	Sujawal	Jati	Kar Malik	Dujho-2	Dujho-2	Roads and Bridges	Roads and Bridges
54	Sujawal	Shah Bunder	Ladiun	Laduin	Ladiun-1	Roads and Bridges	Roads and Bridges
55	Sujawal	Mirpur Bathoro	Kamaro	Moonjhri	Moonjhri	Roads and Bridges	Roads and Bridges
56	Tando Allahyar	Jhando Mari	Hingorani	Hingorani	Hingorani-4	Roads and Bridges	Roads and Bridges
57	Tando Allahyar	Tando Allahyar	Kamaro	Kamaro	Kamaro-1	Roads and Bridges	Roads and Bridges
58	Tando Allahyar	Jhando Mari	Dasori	Saherki	Saherki-3	Roads and Bridges	Roads and Bridges
59	Tando Allahyar	Chamber	Dad Jarwar	Bail	Bail-2	Roads and Bridges	Roads and Bridges
60	Tando Muhammad Khan	Tando Ghulam Hyder	Naseer Khan Chang	Jarki	Jarki-1	Roads and Bridges	Roads and Bridges

Sr. No.	District	Tehsil	Union Council	VO Name	Village	Type of CPI	Sub Type
61	Tando Muhammad Khan	Tando Ghulam Hyder	Naseer Khan Chang	Jarki	Jarki-4	Roads and Bridges	Roads and Bridges
62	Tando Muhammad Khan	Buleri Shah Karim	Qabool Pur	Chodro	Jhang Katiar	Roads and Bridges	Roads and Bridges
63	Matiari	Matiari	Shah Alam Shah Ji Wasi	Shah Pur	Shah Pur-1	Roads and Bridges	Roads and Bridges
64	Matiari	Matiari	Sekhat	Sadri	Sadri-2	Roads and Bridges	Roads and Bridges
65	Larkana	Rato dero	NO.6 Saidudero	Mulan kalhoro	Mulan kalhoro	Irrigation	Irrigation

Annex C:

List of Sample Ongoing CPI Schemes by District and by Types

Sr. No.	District	Taluka	UC	RV	VO Name	CPI Category	Type of Scheme
1	Tando Muhammad Khan	Buleri Shah Karim	Bhale Dino Sathyo	Kunb-2	Haji Pero Sathyo	Brick Pavement	Roads and Bridges
2	Jamshoro	Kotri	Railo	Sain Dino Mallah	Sain Dino Mallah	Brick Pavement	Brick Pavement
3	Jamshoro	Sehwan	Sheikh	Baag	Gidoo Baag	Brick Pavement	Brick Pavement
4	Dadu	KN Shah	Chadan	Meer Muhammad	Meer Muhammad Mashori	Brick Pavement	Brick Pavement
5	Tando Allahyar	Jhando Mari	Mir Abad	Narahado	Haji Janu Khaskheli	Roads and Bridges	Roads and Bridges
6	Sujawal	Sujawal	Jar	Churetani	Churetani	Roads and Bridges	Roads and Bridges
7	Larkana	Bakrani	Larkana	NO. 26 Baqapur Naich	Baqapur	Roads and Bridges	Roads and Bridges
8	Kambar Shahdadkot	Kambar	Kambar	10. Panhwaro	Khahi Meehno	Roads and Bridges	Roads and Bridges
9	Jamshoro	Sehwan	Wahur	Pehnji Madad Pan Karan	Jadani Pahnwar	Drinking water supply	Water Storage Tank
10	Dadu	Mehar	Kolachi	Gulab	Kolachi	Drinking water supply	Hand Pumps
11	Sujawal	Mirpur Bathoro	Hussain Pur	Mangi Ladho	Mangi Ladho	Drinking water supply	Drinking Water Supply
12	Tando Muhammad Khan	Tando Muhammad Khan	Digh Mori	Khanto	Veri Jo Kot	Drinking water supply	Drinking Water Supply
13	Kambar Shahdadkot	Sijawal	Shahdadkot	Sijawal Junejo-6	Koor Sahib	Drinking water supply	DWHPs
14	Dadu	Mehar	Baledai	Subhan allah	Sultan Jatoi	Sanitation	Latrines
15	Jamshoro	Sehwan	Bubak	Manchur	Band Manchar	Sanitation	Latrines

Sr. No.	District	Taluka	UC	RV	VO Name	CPI Category	Type of Scheme
16	Larkana	Rato dero	No. 12 Waris Dino Machhi	Warisdino Machi	Waris Dino Machi	Irrigation	Lift Irrigation
17	Tando Muhammad Khan	Tando Muhammad Khan	Tando Ghulam Hyder	Jamal Din Lashari	Geo	Sanitation	Drainage and Sanitation
18	Sujawal	Sujawal	Jati	Marho Bola Khan	Marho Raiji	Renewable energy	Solar Lighting System
19	Tando Allahyar	Tando Allahyar	Khokhar	Waguder	Waguder-2	Renewable Energy	Solar Lighting System
20	Larkana	Rato dero	Rato dero	No.7 Garhi Khuda Bux Bhutto	Patro	Labano	Lift Irrigation (1 NO.)
21	Kambar Shahdadkot	Warah	6. Junani	Jogi	Murad Bhatti	Roads and Bridges	Brick Pavement
22	Kambar Shahdadkot	Warah	Junani	Junani	Junani	Roads and Bridges	Brick Pavement
23	Larkana	Larkana	NO. 17 Rasheed Wagan	Jamarani	Usman Jamarani	Roads and Bridges	Brick Pavement
24	Dadu	Larkana	NO. 14 Lund	khedkar	Kenjhar	Roads and Bridges	Brick Pavement
25	Jamshoro	Sijawal	Arzi Bhutto-2	Khaliq Dino Dakhan	Bahar	Drinking Water Supply	Water Supply Line
26	Tando Muhammad Khan	Tando Ghulam Hyder	Lakhi @ Mirwah	Ahmedani	Ahmedani-1	Roads and Bridges	Brick Pavement
27	Tando Muhammad Khan	Tando Muhammad Khan	Nango Shah	Nango Shah	Nango Shah-6	Roads and Bridges	Brick Pavement
28	Matiari	Saeedabad	Sikanderabad	Rahu	Rahu-1	Roads and Bridges	CC Pavement
29	Matiari	Saeedabad	Faqeerabad	Amin Lakho	Amin Lakho-3	Roads and Bridges	CC Pavement

Sr. No.	District	Taluka	UC	RV	VO Name	CPI Category	Type of Scheme
30	Matiari	Saeedabad	Sikanderabad	Rahu	Rahu-3	Roads and Bridges	CC Pavement
31	Tando Allahyar	Tando Allahyar	Ghulam Khan Sanjrani	Nahiki	Nahiki-1	Roads and Bridges	CC Pavement
32	Tando Allahyar	Chamber	Began Jarwar	Nagnah	Nagnah-1	Roads and Bridges	CC Pavement
33	Dadu	Rato dero	No. 12 Waris Dino Machhi	Warisdino Machi	Mehrban	Roads and Bridges	CC Street Pavement
34	Tando Muhammad Khan	Tando Muhammad Khan	Rajo Nizamani	Kari	Shagomal Thakur	Roads and Bridges	Brick Pavement
35	Tando Muhammad Khan	Buleri Shah Karim	Saeed Pur	Heran	Heran-1	Roads and Bridges	Brick Pavement
36	Larkana	Bakrani	NO. 28 Pathan	Thullah	Yar muhmmad jatoi	Roads and Bridges	CC Pavement
37	Dadu	Rato dero	No.1 Bossan	Pawro	Muqadas	Drinking Water Supply	Hand Pump

Annex D: Types of Data Collection Tool Used

Three types of data collection tools were used to collect data: 1) Technical checklists; 2) FGD tools; and 3) KII tool, as briefly described below:

- **FGD guides** include guide for conducting FGD with VO members; and with field teams of implementing partners.
- **Key Informant Interview (KII) guide** were used for holding interviews of the management of the RSPN and the partner RSPs.
- **Engineering assessment tool/checklists** (one separate for each sector) were used for technical assessment of schemes. These tools were used to achieve the study objectives is shown in below:

Data collection tool	Annex	Objectives			
	Annex	O1. Immediate impact	O2. Relevance	O3. Technical assessment of CPIs	O4. Technical support
FGD Guide for VO Members	Annex C	✓	✓		
FGD Guide for field teams of RSPs	Annex D	✓	✓	✓	✓
KII Guide for Programme Managers	Annex E	✓	✓	✓	✓
KII Guide for CPI Coordinator	Annex F			✓	✓
Checklist for technical assessment	Annex G			✓	✓

SUCCESS Programme is based on the Rural Support Programmes' (RSPs) social mobilisation approach to Community-Driven Development (CDD). Social Mobilisation centres around the belief that poor people have an innate potential to help themselves; that they can better manage their limited resources if they organise and are provided technical and financial support. The RSPs under the SUCCESS Programme provide social guidance, as well as technical and financial assistance to the rural poor in Sindh.

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