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Assessment of Outcomes from the Community Physical Infrastructure (CPI) Component of the EU-Funded BRACE Programme

IMPLEMENTING PARTNERS

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NRSP
National Rural Support Programme

TECHNICAL ASSISTANCE PARTNER

DAI

reenergia

SEBCON
SOCIO-ECONOMIC AND BUSINESS CONSULTANTS

WIJDAN

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Authors
Amer Zafar Durrani (Reenergia - REE)
Arjumand Nizami (Wijdan - WN)

Technical Lead
Dr Hanan Ishaque (BRACE-RSPN)

Reviewers
Jawad Ali (WN)
Muhammad Darjat (REE)
Samia Liaqat Ali Khan (REE)
Aimen Abbasi (REE)
Kamran Sadiq (SEB)
Dr Sulaman Ijaz (BRACE-RSPN)
Sajjad Hussain Changezi (BRACE-RSPN)
Rimsha Taj (BRACE-RSPN)

Field Research Team
Arjumand Nizami (WN)
Muhammad Darjat (REE)
Jawad Ali (WN)
Mohsin Ayub (REE)

Household Survey Team
Shabana Hanif (Sebcon – SEB)
Nadeem Ahmad (SEB)
Tanveer Ahmad (SEB)
Fareeda Gul (SEB)
Mansoor Ahmad (SEB)
Ayesha Jalal (SEB)

Data Entry, Processing and Analysis Team
Sajjad Aslam (SEB)
Muhammad Shafi Gul (SEB)

Branding and Visibility
Muhammad Omer Farooq (BRACE-RSPN)

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Thematic Study on

Assessment of Outcomes from the Community Physical Infrastructure (CPI) Component of the EU-Funded BRACE Programme

July 2022

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List of Acronyms

B/C	Benefit to Cost Ratio
BRACE	Balochistan Rural Development and Community Empowerment
BRSP	Balochistan Rural Support Programme
CI	Community Institution
CO	Community Organisations
CPI	Community Physical Infrastructure
DSS	Drainage and Sanitation Scheme
DAI	Development Alternatives Incorporated
DDP	District Development Plan
DWSS	Drinking Water Supply Scheme
ER	Expected Result
EU	European Union
FGD	Focus Group Discussions
FPW	Flood Protection Wall
GoB	Government of Balochistan
HH	Households
IPs	Implementing Partners
IRR	Internal Rate of Returns
JDDC	Joint District Development Committee
KII	Key Informant Interviews
LSO	Local Support Organisation
MIP	Micro Investment Plan
NPV	Net Present Value
NRSP	National Rural Support Programme
OD	Open Defecation
O&M	Operations and Maintenance
PCRWR	Pakistan Council of Research in Water Resources
RSPN	Rural Support Program Network
SDG	Sustainable Development Goals
TVET	Technical and Vocational Educational and Training
UC	Union Council
UCDP	Union Council Development Plan
VDP	Village Development Plan
VO	Village Organisation

Executive Summary

The scope of this study was to assess the immediate impact of outcomes associated with CPI schemes implemented under the BRACE Programme. The key objectives of this study were to (a) assess the relevance of the CPI to the needs of local communities, especially those of women, and (b) identify the immediate impact (economic and social outcomes) of CPI schemes implemented under the BRACE Programme on improving rural livelihoods and empowering communities, especially women, (c) quantify the intervention outcomes as direct and indirect benefits delivered, by type of CPI scheme, and (d) report the communities' and the concerned government departments' perception of the outcomes of CPIs.

Four hundred beneficiary HH, including 50 (fifty) percent of women beneficiaries, were interviewed in door-to-door HH surveys-in addition to IPs' surveys and follow-up experts' field FGDs and KIIs. These surveys were based on a sample of forty CPI interventions, including four (DWSS, DSS, FPW, and RGS) of the six categories of CPIs in 3 out of the 9 targeted districts-based on a significant sample and in agreement with RSPN. In addition, based on the sample of forty CPI schemes across three selected districts, the study assessed twelve schemes in Kech, sixteen in Khuzdar, and twelve in Pishin.

Relevance

The assessment showed that under the BRACE Programme DWSS and DSS schemes were reported as being the most relevant among needs identified during women's CIs meetings.

Drinking Water Supply Schemes

The BRACE Programme DWSS CPI schemes were highly relevant to community needs - when asked about relevance to the community's actual needs, 89 (eighty-nine) percent of respondents said that the scheme was highly relevant to their identified priority needs.

After the BRACE Programme DWSS implementation, water availability was sufficient for multiple daily HH applications. Apart from using water for drinking purposes, the DWSS has also addressed the community's water needs for everyday HH use, including washing, kitchen gardening, and cleaning. Figure 20 shows key uses of water in HH for all three districts. In this assessment, the number indicates that apart from access to clean and safe drinking water, DWSS benefitted HH in daily activities, such as washing, bathing, cooking, kitchen farming, livestock, etc.

Drainage and Sanitation Schemes

The BRACE Programme DSS CPI was highly relevant to community needs, resulting in increased demand for DSS CPI. However, although the HH surveys also indicated further need for DSS, only 15 (fifteen) percent of HH responded that the DSS CPI scheme fulfilled their priority needs. At the same time, 16 (sixteen) percent of the respondents have identified that schemes are not enough to fulfill their needs of DSS.

Flood Protection Walls

The BRACE Programme FPW was a relevant CPI intervention, totally in line with the HH needs to be included in the UCDP and their unified consensus on the need during the surveys.

Rehabilitation of Government Schools

Relatively fewer HH was involved in identifying the RGS compared to other CPI interventions in the BRACE Programme. Although HH opined that more relevant RGS could have been undertaken in the BRACE Programme, this needs a targeted assessment in post Programme evaluation as the possible multiple biases cannot be dealt with with an already agreed purposive sample.

Impact

Drinking Water Supply Schemes

DWSS in beneficiary communities empowered HHs after the BRACE Programme. In most cases, for the first time, a common priority need of the community was completed without a contractor—or partly through a sub-contractor. This enhanced confidence and capacity of people at a grass-root level to plan and implement infrastructure activities of their choice, which have a common benefit for the community.

DWSS improved communities' external networks, enhanced communication skills to negotiate with actors outside the community, and increased communities' social cohesion and self-dependency through their involvement in the project implementation process. Community contribution in CPI has developed a sense of ownership which could be beneficial for contribution to future community development projects. Community Organisations, overall, have been strengthened because of the DWSS implementation.

Social Impact on women empowerment after implementation of DWSS under the BRACE Programme was prominent, with women being nearly 50 (fifty) percent of the beneficiaries. The workload for women and children has reduced as water-fetching was primarily their responsibility. Women are primary gainers from implemented DWSS and utilise their time savings in economic activities such as seamstress work, agriculture, and marketing. In a few cases, the community reported that DWSS are designed to construct water-fetching points/clusters at various locations of the village to allow women to interact and socialise while fetching water near their HH.

The distance travelled for fetching water was reduced from approximately 2 km to 0.2 km, significantly reducing the labour involved in the process. In addition, due to DWSS implementation, time savings are utilised by all genders for productive household, economic and social activities.

The overall potential impact of DWSS based on reduction in health expenditures alone is estimated at 1.1bilPKR/year for the 300,000 targets HHs. In perspective, this is like making 1.1bilPKR available each year for other HH investments-social and economic. Community hygiene behaviours and conditions have significantly improved after the implementation of DWSS. HH access to portable, clean, and safe drinking water has lowered their monthly expenditures relating to health and hygiene by an average annual expenditure of 3,600PKR per HH—based on HH responses.

Reduced workload for women and children resulting from DWSS implementation under the BRACE Programme has increased women's incomes, with the Programme interventions contributing 4.8bilPKR/yr. to the economy of the 9 districts and 16,000PKR/yr./HH. This is almost the same as the impact of the ESHAS HH-wise cash transfers and is self-sustaining.

DWSS implementation under the BRACE Programme has encouraged tree plantation and sustenance agriculture. Still, it also results in unregulated groundwater extraction and vegetation drying due to moving from water channels to pipes. While plantation and sustenance, DWSS schemes implemented under the BRACE Programme have encouraged women's tree plantation and sustenance agriculture. The community's solar-powered groundwater extraction is often unregulated by the community, which lowers the groundwater table, especially in Khuzdar. In addition, stream-water-based gravity flow and piped schemes potentially dry out the en route vegetation existing before tanking and water piping.

Economic analysis, including a sensitivity analysis (±20 percent on total cost) for the BRACE Programme DWSS, shows robust benefit-cost ratios, positive Net Present Values (NPV), and positive Internal Rates of Return (IRR). The total cost of thirty-two DWSS selected for the assessment is 44,462,244PKR. The NPV estimated for all thirty-two DWSS is 96,659,743PKR or nearly 100milPKR for an investment of roughly 45milPKR. This NPV accounts for electricity savings as these are part of the benefit stream. Assuming that the average NPV calculated is applicable across the 147 (one hundred and forty-seven) DWSS CPI already implemented, we can posit that this investment (205,005,584PKR) has generated an NPV of 444,030,694PKR or nearly 500milPKR.

Drainage and Sanitation Schemes

The DSS schemes have directly impacted the social uplift of the beneficiary HHs through cleaner environments-ODFC, improved hygiene, the appearance of localities, improved intra-community mobility, and a heightened sense of self-worth. Paved open DSS schemes have reduced the sewage infiltration into the groundwater and generally in the sub-surface, reducing disease prevalence. While improving visual aesthetics and reducing bad smells and breathing (as many festering gases causing the foul odors are also harmful to human health). Land and water pollution is reduced under the DSS CPI implemented under the BRACE Programme.

The DSS implemented under BRACE Programme has lessened HH health expenditures by 50 (fifty) percent on an average and added 0.86milPKR/yr. Towards HH savings/additional income. A detailed cumulative CPI impact can be carried out later as part of the post-completion assessment of the BRACE Programme; however, for now, it suffices to understand that potentially, if BRACE Programme manages even a 1 (one) percent coverage under the current investment, there would be a total saving/additional income of 19.5milPKR/yr. in the 9 (nine) districts-available for other social and economic activities by the HHs.

The DSS, especially drainage, needs to address the outfall issues to reduce potentially negative environmental impacts. Drainage water contaminated agricultural land and polluted the environment before the construction of the drainage scheme. Now rainwater and wastewater are drained into the streams or other places outside the village, positively impacting the community's quality of life, health, and hygiene. While the HH are happy about the sewage being removed from their immediate environment, they do not seem aware of their impact on areas where the outfall lies-often natural streams.

Flood Protection Walls

HH reported enhanced social cohesion and a sense of security against disasters hitherto perpetuated after the floods, post implementation of the FPW under the BRACE Programme. In addition, shared public assets are now secured against floods allowing the community to consider investing in further development.

The direct economic impact of FPW under the BRACE Programme was realised in an increased value of land, lessened risk to HH investments in housing, and increased sustenance agriculture. The issue of yield improvement was investigated at the assessment design stage. Still, after the field visits, it was understood that this was not relevant in the context of the FPW as the land-catchments are not arable. HH does nothing more than a little sustenance agriculture by especially developing micro-tracts. An increase in plantation and sustainable sustenance agriculture are the main environmental impacts of FPW CPI.

FPW and related flood protection CPI appear to have increased land values of beneficiary HHs (0.19 percent coverage) by 5.7milPKR, which implies that even a 1 (one) percent total coverage of such schemes can potentially contribute to an increase in 300milPKR in terms of HH land value!

Rehabilitation of Government Schools

Despite the HH perceiving lower relevance of RGS interventions, they have contributed to increased enrolment in girls' schools and improved health and hygiene therein. ODFC environments are the primary environmental benefits reported because of the construction of toilets. A potential increase in women's participation in the workforce and reduced health expenditures are the primary economic impacts; however, these need a separate evaluation for quantification.

Based on the data available to the assessment team, the Implementing Partners (IPs) have faltered in not promoting a massive tree plantation in the context of RGS interventions which could have had multiple environmental and educational benefits.

Participation and Perception

Most beneficiary HHs participate in the CPI implementation and continue doing so during project implementation and then during the Operations and Maintenance (O&M)-though the participation does fall once the needs have been identified. In addition, a majority of the HHs participate in CPI related meetings.

IPs reported that 50 (fifty) percent of the members in all CPI implementation committees were women. These women manage their respective CIs, which include deciding the agenda for a meeting, organizing and moderating

meetings, recording minutes, collecting cash savings from CI members, record keeping, and maintaining books of accounts. Women are also part of CPI implementation, procurement, and O&M committees.

HHs in nearly all the UCs contributed to the project's capital cost, including upstream contributions by HHs towards future O&M costs, followed by an elevated level of HH participation in O&M committees.

96 (ninety-six) percent of the respondents during the survey also indicated participating in different phases of CPI implementation, which eventually empowered CIs in beneficiary villages through training, upskilling, and decision-making.

The assessment noted a prominent level of Satisfaction in the community with the implementation process and outcomes of the BRACE Program CPI component. In addition, most of the CIs agreed that BRACE CPIs have improved the overall living conditions of the rural community and are well-aligned with the needs identified by the community.

Land value appreciation indicates a positive community perception of the FPW CPI intervention under the BRACE Programme.

According to government officials, cost-effectiveness and timely completion of CPIs make them impactful and different from the government's infrastructure projects. In addition, the rehabilitation of government services and schools has resulted in increased enrolment of girls and an overall improved school standard.

The government looked upon the CIs seeded and developed under the BRACE Programme as the nursery for local government political structures once they came about. However, government officials also mentioned that the core reason for BRACE Programme's success is community participation and involvement through CIs during the project cycle. Unless these CIs are fostered and local bodies legislated and involved to contribute to future O&M of schemes, including fulfilling recurring costs, there is little chance of successful delivery of government-funded infrastructure projects.

Effective coordination is emerging between the government institutions and the CIs. For example, after VDPs and UCDPs, a District Development Plan (DDP) has also been prepared in Kech by the LSO network, and forty agriculture projects were funded by DDP and shared with the agriculture officer. Projects were funded through the SDG fund of the Balochistan government, and a total of 30milPKR was allocated.

Recommendations

Solarised DWSS, funded by BRACE Programme, has helped the community lift groundwater for drinking and other domestic purposes. However, despite having these solar systems, most beneficiary villages do not have electricity access. With small investment ideally by the HHs, using VO saving as a loan, or linking VOs with microfinance banks could establish their mini-grid, achieving SDG 7 "access to reliable electricity."

Solar technology is comparatively new for beneficiary villages, and proper O&M training is required during FGDs and site visits; no trained operators were present. The inverters of solar units were also not adequately placed inside a casing and were just put above a stone under the solar panels. The boreholes were also not properly protected.

IPs should agree with CIs on standardised CPI designs providing options for adaptation to a particular environment and topography. For example, in most of the DWSS in Kech and Khuzdar, the project's design included a common water collection point. Still, the community on its own has extended pipelines as multiple communal water taps in the villages. In the long term, this will affect water's sustainability and over-extraction.

The sustainability of electricity-based DWSS is also a question mark due to Balochistan's poor electricity situation. Operation of DWSS on electricity is not feasible in such situations. Beneficiaries of the electrified scheme during FGDs also complained about the situation and asked for financial and technical support to install solar units on the left groundwater.
A proper O&M mechanism and financing are required to sustain implemented CPIs, especially in the case of rehabilitated government schemes. DWSS, where governments' schemes have been rehabilitated, has sustainability issues as the government does not allocate O&M funds for these projects. Flood protection structures have provided mitigation measures to protect village settlements, including houses, land, and public

and private physical assets. However, communities reported a strong need for technical and financial support to improve flood mitigation structures in settlements and villages. Therefore, the CPI component of the BRACE Programme needs to focus more on the sustainability of the schemes, particularly for O&M, capacity building and training of the local community, and the use of viable technology for implementing schemes. There is also a need for proper implementation of post-delivery mechanisms, for example introducing an annual maintenance fee to ensure enhanced efficiency and sustainability of the schemes.

IPs and CIs need to be weaned off a perpetual grant-seeking model. There are two parts to this, one for IPs and CIs to develop sustainable models of collaboration that allow for post Programme operations. The second part focuses on deeper post Programme social mobilisation to develop the social contract around the commercial operation of assets like DWSS and other energy-related schemes. It was seen that in areas where water user fees had been institutionalised, the CIs were often challenged in collecting the fees from even a quarter of the households. A creative and sustainable social mobilisation discourse amongst the CIs' activists and the IPs can go a long way in deepening the realisation amongst beneficiary HH to pay the fees. A model for sustaining this needs to be developed before the end of the BRACE Programme.

In the future, programmes such as BRACE should consider the pros and cons of emphasizing geographical spread as resource limitations result in a very thin spread of interventions. This lessens the impact as the needs are not addressed adequately despite high relevance. Providing Education and commercial community-driven CPI (or RGS) also require enhancement to cater the improved health, increased availability of time, and opening of avenues for women's income opportunities. Adequacy of provision is closely linked to relevance, impact, and sustainability. The common excuse from implementing partners and governments is the need for equitable distribution of resources and maintaining regional harmony within and across districts. Increasing resources and not equitable allocations are the answers; otherwise, this is a poor fiscal or simply allocational efficiency. This inevitably threatens the sustainability.

It is important to review the RGS CPI segment in further detail, possibly as part of the post Programme evaluation. The RGS schemes were implemented in order of priority as agreed in the VDPs/UCDPs of their respective CIs, barring a few cases where members of the community and HHs have indicated otherwise and specified the need for more relevant schemes. This shows up when gauging the satisfaction of the HHs; the RGS scored low. This corresponds to earlier findings that the implemented RGS schemes were also deemed low relevance by responding HH. Why is the satisfaction and perception of the relevance of RGS relatively low? The assessment team discussed and triangulated this across the multiple tiers of information gathered and concluded that this required a targeted review beyond the scope of this present assessment. Biased responses and the resulting analysis points to multiple possibilities, some of which are mentioned here.

- The fewer schemes and similar interventions require a targeted and wider sampling of this segment of interventions in a follow-on study.
- The similar menu offered to all communities/HH implied limited choices under the BRACE Programme and possibly a wider menu of needs was identified in the VDPs/UCDPs-or even worse, the VDPs/UCDPs choices were limited by the IPs limiting the same during social mobilisation.
- RGS interventions being more remote and communal, in addition to serving the mobilised women CIs perceived need-educating girls-may have resulted in these contradictory perceptions.

IPs' capacity for engineering and environmental safeguards assessment needs improvement-innovation will be a key in developing this as the current model of multi-sector 'specialisation' and provision by a single IP is not workable-neither efficient nor effective. It is not possible that the current model followed by IPs (not just the BRACE Programme) can net effective and efficient engineering and safeguards and other important technical decisions. A better model is for the Programme to build central capacity, possibly at a network level, e.g., RSPN could be the first step. This central capacity at RSPN can later be spun off as a for-profit entity to provide specific technical assistance on the community-driven provision of local infrastructure.

Effective coordination between the government institutions and the CIs needs to be sustained to enable a better and more accountable local government architecture to develop in Balochistan. For example, after VDPs and UCDPs, a District Development Plan (DDP) has also been prepared in Kech by the LSO network, and forty agriculture projects were funded by DDP and shared with the agriculture officer. Projects were funded through the SDG fund of the Balochistan government, and a total of 30milPKR was allocated.

1- Introduction

Balochistan Rural Development and Community Empowerment (BRACE) Programme is an EU-Funded five-year (2017-2022) development programme. BRACE aims to support the Government of Balochistan (GoB) in the rural development of target districts. The Programme is geared towards socio-economic development, environmental conservation, and mobilisation of resilient communities for participation in sustainable opportunities.

BRACE Programme is implemented by National Rural Support Programme (NRSP) and Balochistan Rural Support Programme (BRSP), with over all coordination from Rural Support Programme Network (RSPN). In addition, the EU acquires technical assistance from DAI to assist the GoB in propelling Community-Driven Development (CDD) efforts through BRACE. The Programme is implemented across ten districts, comprising 257 Union Councils (UCs) and around 1.9 million beneficiaries comprising 300,000 households (HHs). Figure 1 shows a summary of quick facts about the BRACE Programme.

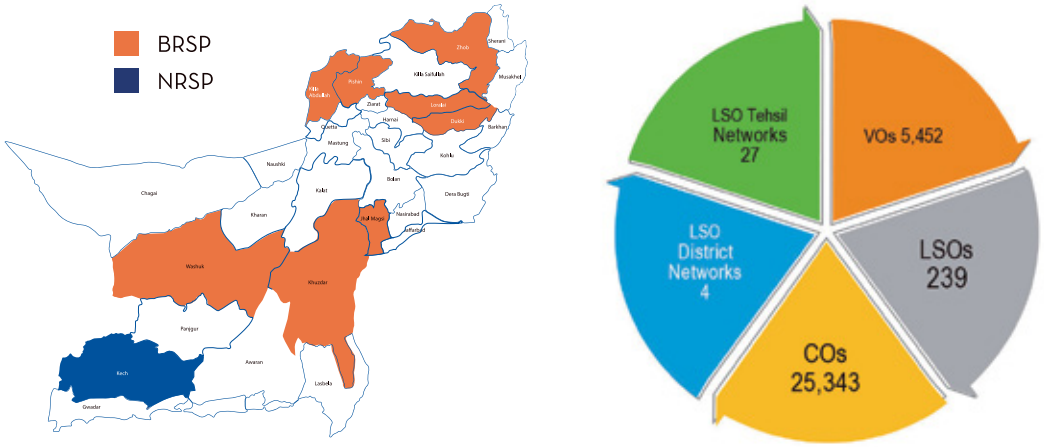


Figure 1 BRACE Programme Facts

The Programme's main objective is to empower local communities, enable them to implement community-driven development initiatives, and increase their capacity to influence public policy in planning and executing community-focused interventions in partnership with the Community Institutions (CIs). BRSP, as the implementing partner, is undertaking BRACE Programme in nine districts, including *Jhal Magsi, Khuzdar, Killa Abdullah, Chaman, Loralai, Pishin, Washuk, Zhob, and Duki*, represented by the "Orange" colour in Figure 1. In addition, NRSP is the partner for implementing the BRACE Programme in District Kech in (Blue).

The BRACE Programme aims to reduce the negative impacts of poverty, social inequality, and economic deprivation and to improve livelihoods and access to basic services. CIs are fostered under BRACE Programme to identify local needs and potentials with Rural Support Programmes (RSPs) assistance. Micro investment Plans (MIP) at the household (HH) level are also developed under this Programme, along with the Village Development Plans (VDPs) and UC Development Plans (UCDPs).

The intervention cost is covered by a grant of EURO (€) 45 (forty-five) million provided by the EU and with a contribution of 500 mil PKR by the Government of Balochistan (GOB). The agreement between the EU and RSPN has been operational since 30th June 2017 and will be concluded on 30th June 2022 (unless otherwise extended[1]). RSPN's role is to facilitate Programme implementation by ensuring quality control, standardizing procedures, developing a common monitoring and evaluation (M&E) framework, documentation and warranting responsiveness to lessons learned, and providing value-added strategic support.

BRACE Programme provides dedicated resources for interventions under ER-3 (Expected Result) that lead to improved access of communities, particularly women and marginalised groups, to quality public climate-resilient community infrastructure schemes. ER-3 is being implemented through the key intervention of Community Physical Infrastructures (CPIs).

The overall target set under the BRACE Programme is 363 productive and climate resilient CPIs to be constructed by the CIs with technical support of BRSP and NRSP. At the time of this CPI review's advertising [by RSPN], 215 CPI schemes have been initiated, of which 116 schemes are completed as of 30th September 2021. The latest implementation status is provided for BRSP and NRSP as of May 2022 (post-completion of this CPI outcomes review).[2] In all, 238 schemes have been initiated in all nine districts of which 153 are completed, by May 2022

Table 1 CPI Target Versus Achievement - BRSP

Activity	Overall targets till (2017-2022)	Targets till 31 March, 2022	Achieved till 31 March, 2022	Achievement (%) against targets till 31 March, 2022
CPIs need identification	211	211	202	96%
Initial feasibilities of the CPI schemes	211	211	195	92%
Detailed engineering surveys conducted	211	211	195	92%
Schemes designs and estimates prepared	211	211	195	92%
Project proposals reviewed	211	211	195	92%
CPIs approved by JDDC	211	211	184	87%
CIs sub-committees trained for implementation, financial record keeping, and O&M of the schemes	1266	732	702	95%
TOPs and agreements signed with the CIs	211	174	164	94%
Physical work initiated on the schemes	211	174	148	85%
Physical work completed on the schemes	211	117	99	85%
O&M plans prepared	211	117	99	85%

Below Target | Above Target | Behind Target

[1] A no-cost extension will assist in completion of unspent amount as well as any Euro-PKR gains savings.

[2] 5th Monitoring Mission Report, External Performance Monitoring of the Balochistan Rural Development & Community Empowerment, (BRACE) Programme SC 2019/406386.

Table 2 CPIs Target Versus Achievement – NRSP

Activity	Overall targets till (2017-2022)	Targets till 31 March, 2022	Achieved till 31 March, 2022	Achievement (%) against targets till 31 March, 2022
CPIs need identification	152	152	1500	Above 100%
Initial feasibilities of the CPI schemes	152	144	137	95%
Detailed engineering surveys conducted	152	144	90	63%
Schemes designs and estimates prepared	152	144	90	63%
Project proposals reviewed	152	144	90	63%
CPIs approved by JDDC	152	144	90	63%
CIs sub-committees trained for implementation, financial record keeping, and O&M of the schemes	456	342	273	80%
TOPs and agreements signed with the CIs	152	144	90	63%
Physical work initiated on the schemes	152	144	90	63%
Physical work completed on the schemes	152	105	54	51%
O&M plans prepared	152	105	54	51%

The average CPI cost is ~1milPKR for BRSP and ~PKR 0.5 million for NRSP—primarily due to scheme types implemented and diversity in locations-geography, terrain, and access to materials. The main types of schemes initiated thus far are drinking water supply schemes (DWSS, 74 percent), flood check dams (FCDs, 9 percent), rehabilitation of government services (RGS, 7.5 percent), irrigation (6 percent), and drainage and sanitation schemes (DSS, 2 percent) and flood protection walls (FPW, 1.5 percent). These small-scale community physical infrastructure schemes are identified, implemented, and maintained by the CIs jointly with local authorities.

The BRACE Programme defines its overarching objective as follows:

"To support the Government of Balochistan in reducing the negative impact of economic deprivation, poverty and social inequality, environmental degradation and climate change, and to turn this into opportunities to build and empower resilient communities participating actively in identifying and implementing socio-economic development activities on a sustainable basis in partnership with local authorities."

Furthermore, the specific sub-objectives of the BRACE Programme are:

1. To empower the citizens and communities and provide them with the means to implement community-driven socio-economic development interventions. An increased voice and capability to influence public policy decision-making through active engagement with local authorities for quality, inclusive, equitable service delivery and civic oversight.
2. To foster an enabling environment for strengthening the capacities of local authorities to manage and involve communities in the statutory processes of the local public sector planning, financing, and implementation.

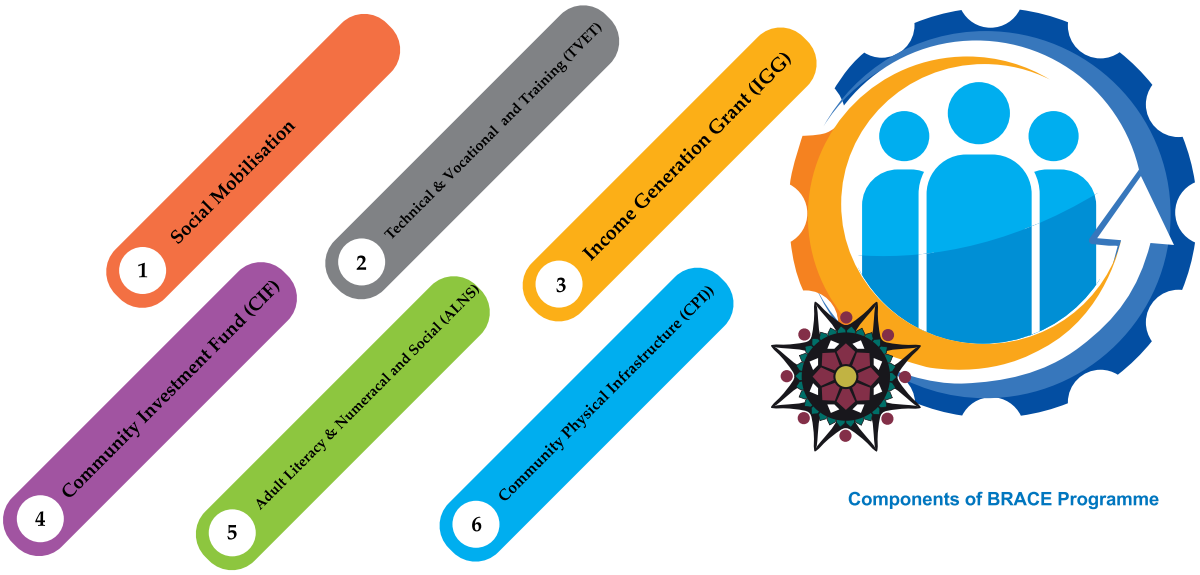


Figure 2 Components of BRACE Programme

Figure 2 shows the components of the BRACE Programme. This report focuses on the CPI component implemented under BRACE Programme. It is based on the review of outcomes of CPI schemes completed across Balochistan's three districts (Kech, Khuzdar, Pishin). These three districts were chosen as an agreed representative sample based on the Terms of Reference of this study and the outcomes of the discussions between the assessment team[3] and RSPN.

The assessment focuses on the CPI schemes' relevance and immediate impact. The assessment parameters include gender considerations, community participation, women participation at different stages of the CPI project cycle, and community and government departments' perceptions of outcomes.

The next sections focus on the approach used for the delivery of the CPIs, the scope of this present assessment, methodology, and approach, followed by the scheme [typology] wise findings of the study-including case studies and the data gathered through a three-tiered analysis.

[3] Reenergia, Sebcon, and Wijdan.

2- Study Scope, Objectives, Tools, and Approach

This report focuses on the CPI component of the BRACE Programme, which is designed to improve basic infrastructure in targeted communities. Through economic and social infrastructure creation, CPI schemes enable the communities to meet their basic needs to gain better access to public services. Upon completion of these CPI projects, the communities are responsible for the O&M. The overall target set under the BRACE Programme is the implementation of 363 productive and climate-resilient CPIs in partnership with local CIs with the technical support of BRSP and NRSP. By September 31[4], 215 CPI schemes had been initiated, of which 111 schemes were completed. Figures 3 show the types of CPI Schemes initiated and completed under the BRACE Programme by NRSP and BRSP. In contrast, figure 4 and 5 shows a breakdown of schemes implemented under NRSP and BRSP, respectively.

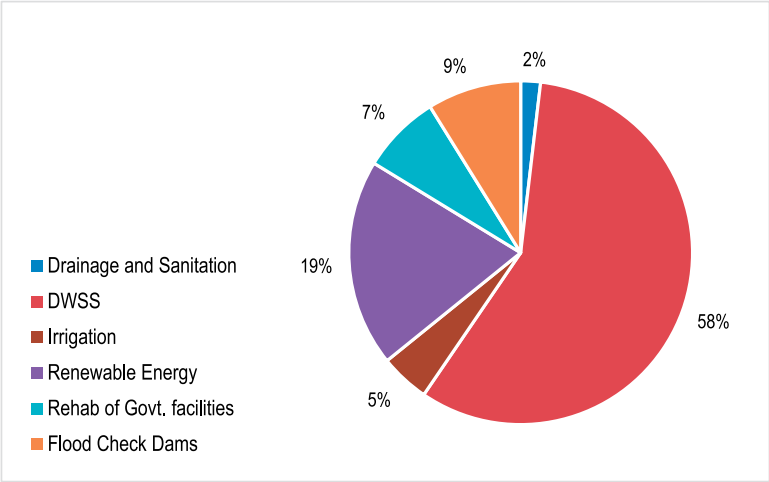


Figure 3 CPI Schemes by Type Implemented under the BRACE

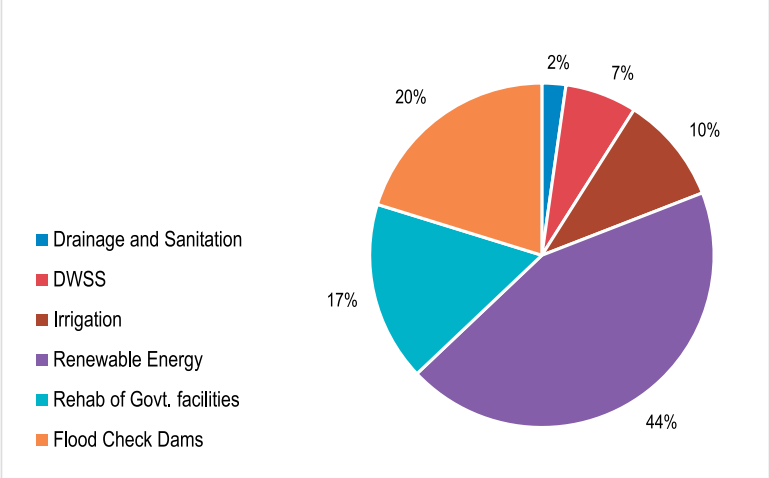


Figure 4 Break down of CPI schemes implemented under NRSP

[4] By February 2021, 128 schemes had been completed. However, the sample determination for this assessment was done based on the September numbers, primarily to make sure that some O&M period would have lapsed before the survey.

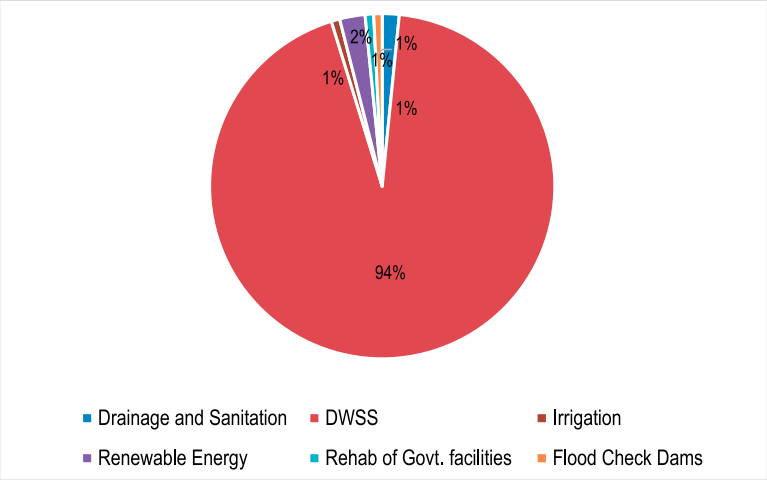


Figure 5 Breakdown of CPI Schemes implemented under BRSP

This study's scope was to assess the immediate impact of outcomes associated with CPI schemes implemented under the BRACE Programme. Therefore, this study's methodological approach entailed assessing the social, economic, and environmental outcomes of CPI schemes completed in the three sampled districts, namely Kech, Khuzdar, and Pishin. In addition, this study examined the relevance of CPI schemes to the needs and priorities of local communities. This study also assessed the process of identification and selection of CPIs in each district based on the priorities and participation of key stakeholders, including local communities [through their CIs], relevant government departments, and the participation of women in the CPI schemes implemented.

2.1 Objectives of the Study

The key objectives of this study are to assess the following.

1. The relevance of the CPI to the needs of local communities, especially those of women.
2. The immediate impact (economic and social outcomes) of CPI schemes implemented under the BRACE Programme improves rural livelihoods and empowers communities, especially women.
3. Quantifying the intervention outcomes as direct and indirect benefits delivered by type of CPI scheme.
4. The communities' and concerned government departments' perception of the outcomes of CPIs.

Figure 6 Objectives of the Study

2.2 Assessment Tools

The assessment team developed tools for conducting the study, including developing data collection tools for the household survey, conducting expert field visits, engaging with various stakeholders, including communities, IPs, and service providers, and conducting a household survey. The design tools for the study are as follows.

1. Household Surveys. (Primary Data.)
2. Experts' field visits and FGDs with CIs (COs/VOs/LSOs at the UC level). (Primary Data.)
3. Online survey and data collection from implementing partners. (Secondary Data.)
4. Experts' KIIs with relevant governmental departments through joint coordination meetings at the district level. (Primary Data.)

These tools allowed triangulation of information (a three-tiered approach) between that reported by BRSP and NRSP with primary data collected through FGDs/KIIs and Household surveys. In addition, the assessment team investigated different steps leading to the operationalisation of CPI schemes to assess the quality of the implementation process (identification, design, implementation, procurement, O&M).

2.3 Approach: Analytical Framework

This assessment was based on the Quality Standards for Development Evaluation of Development Assistance Committee (DAC) under the OECD approach-albeit modified to suit the scope of this study[5]. The following matrix provides an overview of the assessment framework adopted to assess the various stages of the CPI interventions and their outcomes.

Sr.#	Criteria	Goal	Key Sub-Questions
1.	Relevance	Assess the degree to which the interventions/activities aligned with the needs of the target beneficiaries.	• How were priorities identified and decisions made? • Were the identified CPIs for the target areas correctly identified as per local needs? • Who facilitated/conducted the initial project dialogue with the relevant community organisation? • Who participated in the need's assessment in the beneficiary village? • When was the resolution prepared, asked for technical assistance/ survey of the priority needs, and sent to the relevant implementing partner? • What were the key priorities identified and reflected in the VDPs and UCDPs? • Whether the projects meet the development priorities of the local people where each project is implemented. If not, why not? • If there are gaps, what are the gaps?

[5] The Assessment team will follow OECD DAC evaluation criteria updated in 2019

Sr.#	Criteria	Goal	Key Sub-Questions
2.	Impact	Assess and document the impact of CPIs implemented	• What were the pre-project problems in the beneficiary areas? Did the project address these problems? • What is the impact on quality of life, income, and livelihoods? • The project's impact on beneficiaries and to what extent the interventions contributed to improving the socio-economic conditions of the beneficiary communities. • The environmental benefits from the CPI projects. • The interventions planned and implemented don't harm the local biodiversity and natural resources. • Indirect benefits • Employment generation – number of beneficiaries who got employment
3.	Level of Participation	Assess the impact of Programme interventions on especially participation of women. Assessment of the level of women's Socio-economic empowerment in terms of participation in community-level decision-making, increased mobility, elimination of discrimination	• To what extent have women been included and benefited from BRACE Programme? • To what extent have gender equality and women's empowerment been addressed in the design, implementation, and monitoring of the CPIs? • What was the impact of the projects on women's empowerment and in promoting gender equality? • What is the operation and maintenance system? • Are project committees adequately staffed with women to reach out to women?
4.	Perception of Government Departments	Assess the perception of concerned line departments about the CPI interventions	• Were the interventions in line with the government plans for the area? • Were the relevant departments involved in the implementation? • Are the needs identified by the community aligned with the government development plans? • What was the overall perception of the beneficiaries and relevant government departments about identifying stakeholders' needs, design, implementation, and participation, particularly women?

3- Methodology and Sampling

A mixed-method approach is used in this assessment to (a) obtain sample-based quantitative data from the beneficiary households and (b) qualitative data through FGDs and KIIs conducted by an expert team. Based on the agreed analytical framework explained in the previous chapter, the following methodology is used to assess CPI outcomes.

- A desk-review was carried out of the relevant project documents, including project proposals, monitoring reports, and notes for quarterly and annual progress reports, to understand the BRACE Programme projects.
- KIIs were conducted with IPs' project staff, both with BRSP and with NRSP, to assess their role in the effective implementation of the CPI component of the BRACE Programme. This included key steps of the project cycle process, needs identification, implementation, community participation, and sustainability of CPI schemes.

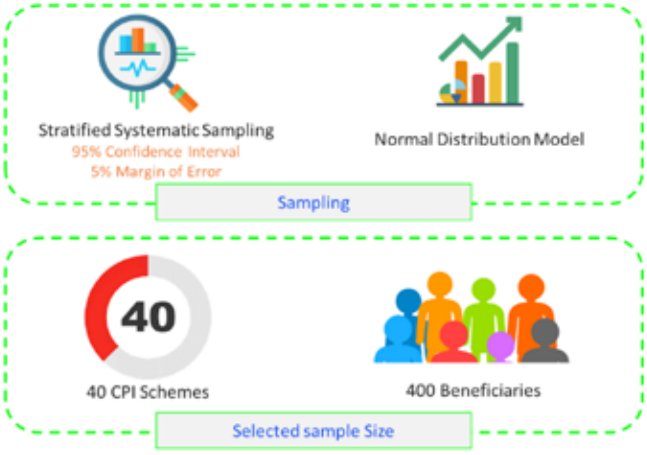


Figure 7 Sampling Framework

- Experts' field visits were conducted to observe a few representative CPIs[6]. In addition, FGDs were conducted with CIs, including VOs and LSOs, using pre-tested tools to assess local communities' perceptions about completed CPIs.
- Household surveys were conducted to evaluate the four main objectives of the assessment, including relevance, level of participation, impact, and perception about the facilitation of government line departments.
- KIIs/structured interviews were conducted with relevant government departments to assess their perception of the BRACE Programme's CPI component and other departments' engagement in CPIs implementation.
- Coordination meetings of key stakeholders were attended in Kech and Khuzdar. The participants included officials of relevant government departments, staff of IPs, and CI representatives.

3.1 Sampling

3.1.1 Beneficiary Households Survey

As of the end of December 2021, the total CPIs were 215, as shown in the table, and as of March 2022, they were 238. Table 3 shows the total number of CPI Projects planned by the end of 2021. Most projects are comprised of DWSS Schemes, and the other 5 CPI Types are also mentioned. Table 3 shows the updated number of CPI projects planned for implementation under the BRACE Program by March 2022. As shown, two IPs are implementing the projects, NRSP and BRSP. These CPIs include rehabilitation of

[6] Please note that a detailed technical assessment of CPIs was not a part of the scope of this survey and this assessment relied on the "Community Physical Infrastructure (CPI) Schemes under EU-Funded Balochistan Rural Development and Community Empowerment (BRACE) Programme" Report, 2021, for understanding this aspect while assessing the outcomes.

Table 3 List of CPI Projects - At the time of Inception Report/Sign-off of Contract

Category	NRSP		BRSP		Total	
	Initiated	Completed	Initiated	Completed	Initiated	Completed
Drainage and Sanitation	02	02	02	01	04	03
DWSS	06	04	118	73	124	77
Irrigation	09	06	01	01	10	07
Renewable Energy	39	13	03		42	13
Rehab of Govt. facilities	15	07	01		16	07
Flood Check Dams	18	04	01		19	04
Total	89	36	126	75	215	111

Government facilities (especially public schools), irrigation projects, Flood Protection Walls, renewable energy systems, and drainage/sanitation. In comparison to Table 3, an increase in the number of projects can be witnessed here because these projects are planned to be completed by the end of 2022.

Table 4 List of CPI Projects Before Initiation of Field Surveys

CPI CATEGORY/ TYPE	SUB-TYPE	BRSP	NRSP	TOTAL
DWSS	Tube Well	1		
	Electric	28		
	Grav	5		
	Laying of the Delivery pipeline for DWSS		2	
	Over Head Water Storage Tank	1	2	
	Rehabilitation of DWSS		2	
	Solar	106		
SUB TOTAL - DWSS		141	6	147
Flood	Levee	1		
	Gabion Wall		1	
			17	
SUB TOTAL - FLOOD		1	18	19
Govt. Facilities	Repair & Renovation of High School	1	15	
SUB TOTAL - REHAB OF GOVT. SERVICES/FACILITIES		**1**	**15**	**16**
Irrigation	Pond + Pipeline	1		
	Irrigation Tube well Solar System		3	
	Rehabilitation of Karez		7	
	Construction of water course		1	
	Construction of Tunnel for Karez		1	
SUB TOTAL - IRRIGATION		**1**	**12**	**13**

Renewable Energy	Solar Home Systems	3		
	Rehabilitation and solarisation of DWSS		4	
	Solar System With delivery pipeline for DWSS		2	
	DWSS Solar System		30	
SUB TOTAL - RENEWABLE ENERGY		**3**	**36**	**39**
Drainage & Sanitation	PCC Drainage Channel	2		
	Communal Toilets		2	
SUB TOTAL - DRAINAGE & SANITATION		**2**	**2**	**4**
	GRAND TOTAL	149	89	238

Table 5 District wise Details on Schemes, Sub-types Implemented

Implementing Partners	District	Union Council	VOs	CPI Type	CPI Sub-Category
BRSP	Khuzdar	Balina Wahir	Kahani	DWSS	Electricity
		Balina Wahir	Chashma		Gravity Flow
		Balina Wahir	Kili Aslam		Electricity
		Loop	Peer Kund		Solarised
		Loop	Jeko		Solarised
		Loop	Sangat		Solarised
		Lagor zard	Zaragho		Solarised
		Lagor zard	Sanjrani		Electricity
		Darneeli	Purki		Electricity
		Darneeli	Killi M. Hassani		Solarised
		Dogun	Sher Sangar		Solarised
		Dogun	Giddan		Electricity
		Chashma	Shaheen		Electricity
		Chashma	Brinji		Solarised
		Sasol	Zarin ghat		Solarised
		Sasol	Khori Khumbro		Solarised
	Pishin	Chur Badizai	Shapozai	DWSS	Solarised
		ThorKhail Badizai	Sabawoon		Development of New Water Source (Tubewell)
		Walma	Tangi Akhtarzai		Solarised
		Yaru 2	VO Roshan		Over Head Water Storage Tank
		Qila Askan Khan	Shakhalzai		Solarised
		Narin	Shasa Mohammadzai		Gravity Flow

Implementing Partners	District	Union Council	VOs	CPI Type	CPI Sub-Category
		Murgha Zakriazi	New Holang VO		Solarised
		Ghareshinan	New Itehad VO		Solarised
		Rodh Malazai	Hira VO		Gravity Flow
		Alizai	Super Star		Electricity
		Manzaki	Goryan Manzaki	DSS	PCC Drainage Channel
		Malikyar II	Sada Bahar		PCC Drainage Channel
NRSP	Kech	Shahrak	VO Guwanaki	DWSS	Rehabilitation of DWSS
		Kuddan	VO Kuddan		DWSS Solar System
		Solband	LSO Shoorma		DWSS
		Nodiz	VO Mayar Jamal Ward		DWSS Solar System
		Kuddan	LSO Rashoon		DWSS Solar System
		Balnigor	VO Bal Mashriq 2		DWSS Solar System
		Nasirabad	VO Meer e Bazar	FPW	Construction of FPW
		Nodiz	VO Nodiz		Construction of FPW 550' Rft
		Nodiz	VO Shay Khan	RGS	Construction of Four toilets & One Surface Tank
		Kuddan	VO Kohak		Construction of Ten Comminaal Toilets (6'x4')
		Solband	CO Baloch Abad		School-Reconstruction of Boundary Wall Long Side, Rehabilitation of Existing Well, Water Tank and Installation of Water Supply
		Solband	CO Doshambey Muhallah Meero Bazar		Construction of RCC Room with Verandah in School

At a 95 (ninety-five) percent confidence level and 5 (five) percent error margin, a sample of 40 CPIs were randomly selected on a normal distribution model. Out of the six categories of CPIs, four were included in the sample of this assessment.

The data received from the IPs (BRSP and NRSP) was assessed, where more than 70 (seventy) percent of completed CPIs are Drinking Water Supply System (DWSS) projects. A sample of ten (10) beneficiaries of each sampled CPI was randomly selected for the detailed survey (including a purposive gender distribution).

Thus, 400 beneficiaries, including 50 (fifty) percent of women beneficiaries, were interviewed in HH survey. Figure 8 shows the breakdown of the beneficiaries in all selected districts.

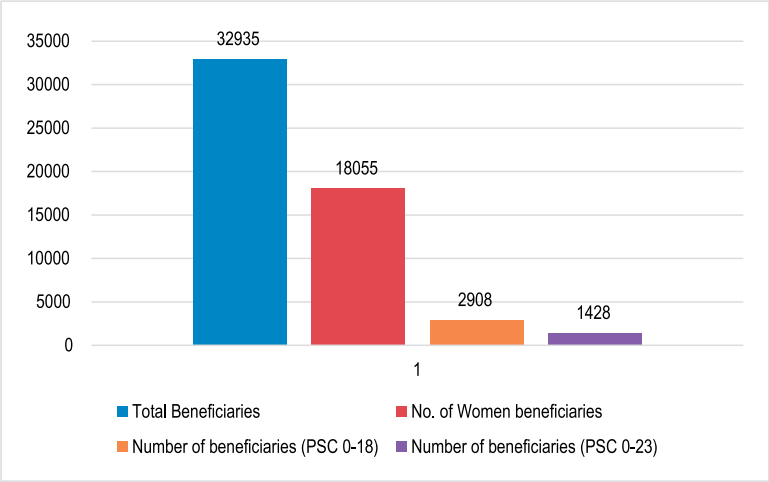


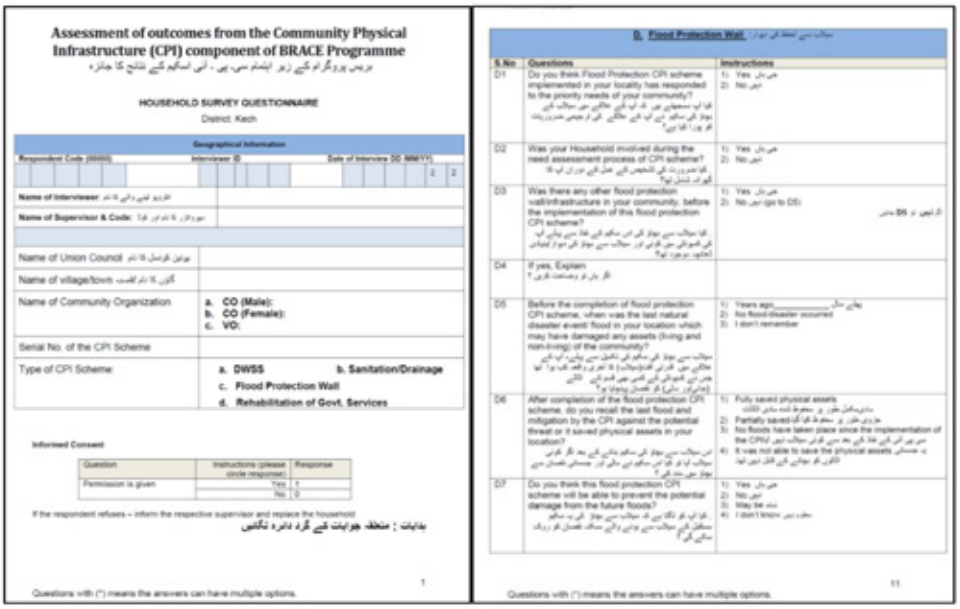
Figure 8 Breakdown of Beneficiaries in all Selected Districts

Table 6 shows the district-wise number of components of the CPI schemes. Based on the sample of forty CPI schemes across three selected districts, the study assessed twelve schemes in Kech, sixteen in Khuzdar, and twelve in Pishin. Annex B has attached a complete list of the forty CPIs selected for the household survey during the assessment study.

Table 6 District Wise componenets of CPI

Scheme District	DWSS	RGS	FPW	DSS	Total
Kech	6	4	2	0	12
Khuzdar	16	0	0	0	16
Pishin	10	0	0	2	12

The questionnaire for the household survey was prepared, and the questions were divided into six sections, i.e., Household Profile, Drinking Water Supply (DWSS), Drainage and Sanitation (DSS), Flood Protection Wall (FPW), Rehabilitation of Governmental Services (RGS), and Final Wrap-up questions. The first and the sixth sections were involved in each copy of the questionnaire, whereas the other four sections were part of the copies per the district's need/availability of the relevant CPI scheme. Figure 9 shows an impression of the questionnaire. The complete HH survey questionnaire is attached in Annex F.



Assessment of outcomes from the Community Physical Infrastructure (CPI) component of BRACE Programme

HOUSEHOLD SURVEY QUESTIONNAIRE

District: Kech

Figure 9 Copy HH Survey Questionnaire of Kech District

Survey enumerators were trained[7] to survey Khuzdar, Kech, and Pishin districts. The six enumerators were divided into three groups of two, one for each district. Each enumerator group comprised a male member (supervisor/enumerator) and one female member. The enumerators were fluent in local languages (Pashto, Balochi, and Brahwi) and literate and conversant in Urdu and English.

3.1.2 Focused Group Discussions

Alongside the HH surveys, twenty-one FGDs were carried out in the three selected districts across twenty-one UCs. Twelve FGDs were conducted with LSOs, and nine FGDs were conducted with VOs. FGDs' location maps are attached in Annex E. Figure 10 shows a screenshot of the FGD guide for VOs.

Assessment of outcomes from the Community Physical Infrastructure (CPI) component of BRACE Programme

General introduction and structure of CO/VO/LSO:

1. Name of the CO/VO/LSO:
2. Name of the Union Council and its distance from the district HQ?
3. Year of establishment of CO/VO/LSO?
4. Number of villages in the UC _____? Total households in UC _____?
5. How many VOs/COs/WOs are there in your UC? (5 and 6 to be filled In case the FGD is with LSO)
6. LSO composition:

Figure 10 FGD Questionnaire

[7] The enumerator training was carried out by the experts' and their wider team, in Islamabad, to ensure that all enumerators are trained and assessed at a common level.

3.1.3 Online Survey and Data Collection from the IPs

IPs, the NRSP and BRSP, were asked to share relevant information for the study. The IPs received the request for information via an online survey questionnaire (attached in Annex F), where thirty-five questions were asked from the IPs.

At the request of the study team, additional information was received from IPs via email—including the cost of CPIs, a timeline of the implementation of CPIs, a contribution from community members in the implementation of CPIs, the number of beneficiaries, categorisation of beneficiaries based on gender and poverty score card. Figure 11 shows a screenshot of an online survey questionnaire for IPs.

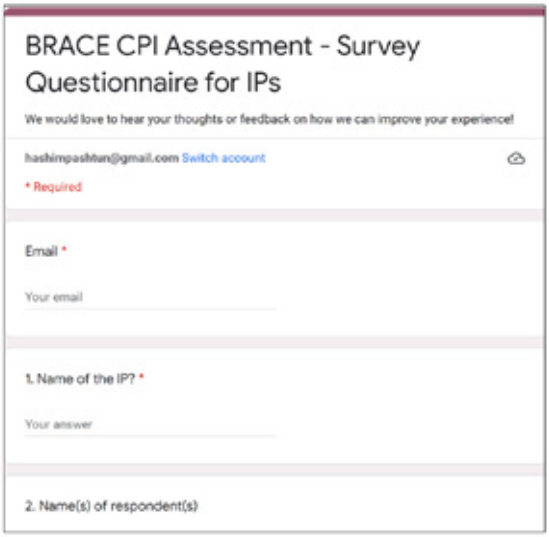


Figure 11 Screenshot of the Online Survey Questionnaire for IPs

3.1.4 Key Informant Interviews (KIIs)

KIIs were conducted with staff of IPs (NRSP and BRSP). Before KIIs, data was collected from the IPs regarding various aspects of CPI implementation under the BRACE Programme. During the mission/field visits, the team attended Joint District Development Committee's (JDDC) meetings in Kech and Khuzdar districts. Separate meetings (KIIs) were also organised with officials of relevant line departments to assess their perception of the CPI component of the BRACE Programme, specifically to understand the level of their support in the implementation of CPIs.

4- The Process of Community Based Delivery of CPIs: Overall Results

The BRACE Programme is founded on a participatory approach implemented in partnership with local communities in the rural areas of Balochistan. Figure 12, below, provides a broad outline of the process of community-based delivery of CPIs under the BRACE Programme.

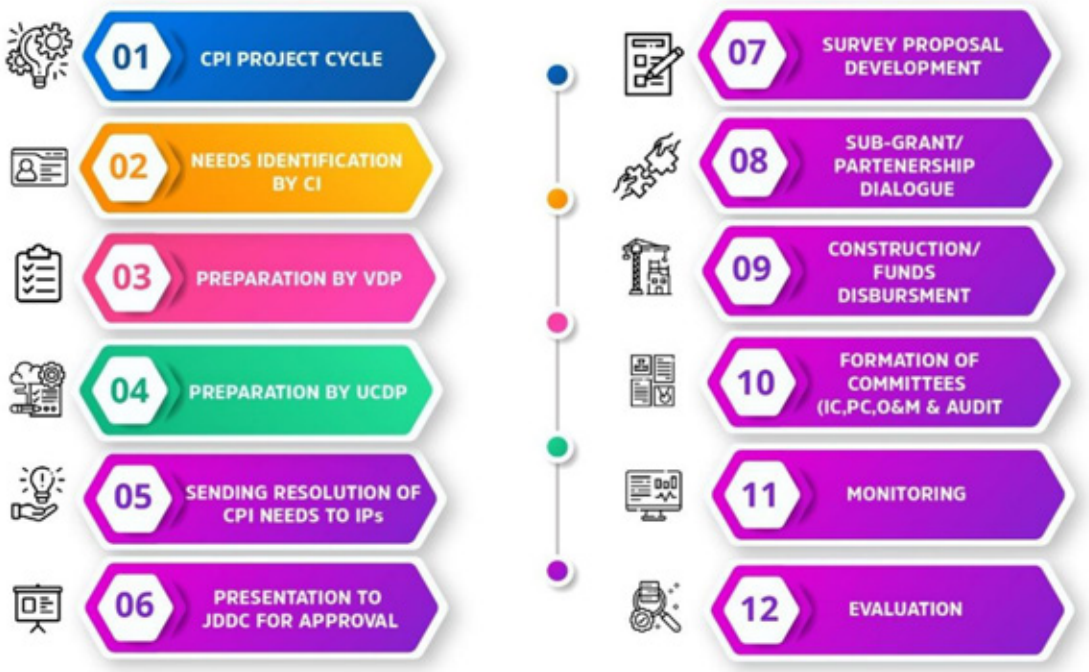


Figure 12 Community-Based Delivery of CPIs

4.1 Formation of CIs

The formation of CIs in new locations and their reactivation in existing locales is essential for the delivery of the CPI component of the BRACE Programme. The CI is a village-based institution where women and men, including those from disadvantaged HHs, become members and conduct a need-based meeting to deliberate on their development challenges. In addition, the CIs participate in Programme introduction dialogues and meetings.

In cases where the village activists have some knowledge about the BRACE Programme, they ask IPs to visit their village to introduce the Programme. Before implementing any scheme, IPs have a precondition of working with organised HHs in villages with a sizeable population of disadvantaged HHs.

The IP's social organisation team in the district facilitates villagers to foster CIs before implementing any scheme, including the CPI component. In addition, villagers raise awareness about CI, including Village Organisations (VO) formation. In most cases, village activists remained well informed about the BRACE Programme and witnessed the benefits of organised HHs.

Due to socio-cultural norms, separate CIs have been formed for women and men in most cases. CIs also nominate their office bearers right in the Programme introduction dialogues. These include the president, the general secretary, and the finance secretary of the CI. The office bearers look after CI matters, including coordinating meetings, setting agendas, writing minutes, and taking care of finances, including the accounts book of saving of individuals who have opened an account in CI. Priority needs of the CI level are identified during CI meetings and recorded in minute books of CI. These are forwarded through a resolution to VO, the Local Support Organisation (LSO), and IP.

4.2 Preparation of Village Plans

The communities prepare their village plans soon after CIs and VOs are formed, and office bearers of the CIs foster the VOs. The village plans contain a profile of the village/sub-village and CIs. Apart from the Village Development Plan (VDP), the CI maintains vital documents, including registers of meeting minutes, a membership register, a profile of CI(s), a list of HHs with poverty levels under different categories, and a HHs' list. This shows the livelihood means of households so that these are readily identified in case any welfare support is required and arriving in the village. In addition, VDPs contain priority needs and partial costing of planned/proposed interventions.

4.3 Preparing the Union Council (UC) Level Plans

The members of the VOs represent the CIs and are office bearers of the CIs. They contribute to preparing UC-level development plans. The COs identify their needs during the CO meetings and are recorded in CO-level registers of minutes. The office-bearers of COs present the needs during VO meetings and further present them in the LSO meetings, and the LSO office bearers compile the needs and debate them in the meetings.

4.4 Formation of Committees

In most cases, the CPIs for funding was approved by the IPs in the name of VOs. The VO members establish different committees, including:

- CPI Implementation/ construction committee, including procurement committee.
- Audit committee; and,
- O&M committee.

The Implementation Committee (IC) is responsible for planning the construction, mobilizing labour, facilitating the formation of the procurement committee, fixing labour rates, managing cash flow, documentation, and record-keeping of expenditures, and supervising construction work.

The Procurement Committee (PC) comprises three to four VO members (or others from the community), who are responsible for the procurement of materials, and their mandate includes the following.

- Identification of sources/vendors for the materials to be purchased.
- Collection of quotations.
- Preparation of comparative statements.
- Negotiation with vendors
- Shortlisting of vendors.
- Issuing work orders.
- Receiving the materials, paying for the material, and keeping the records.

4.5 Community Participation in the Implementation and Operation of CPIs

HHs are also involved in the decision-making process for their community, and 52 (fifty-two) percent (on average) of respondents said they regularly attend VO/LSO meetings to discuss local development.

Needs identified and prioritised by the CIs largely constituted marginalised segments of the community, which are included in VDPs and UCDPs and are financed by the BRACE Programme-demonstrating that the Programme has invested in the priority needs of most disadvantaged communities. However, in most cases, an outreach of the CPI component of BRACE has been isolated villages, which are most vulnerable and are generally deprived of such development initiatives.

During FGDs, CIs confirmed that VO/LSO conducts monthly meetings for their constituent CIs. Figure 13 shows the involvement of the household in different stages.

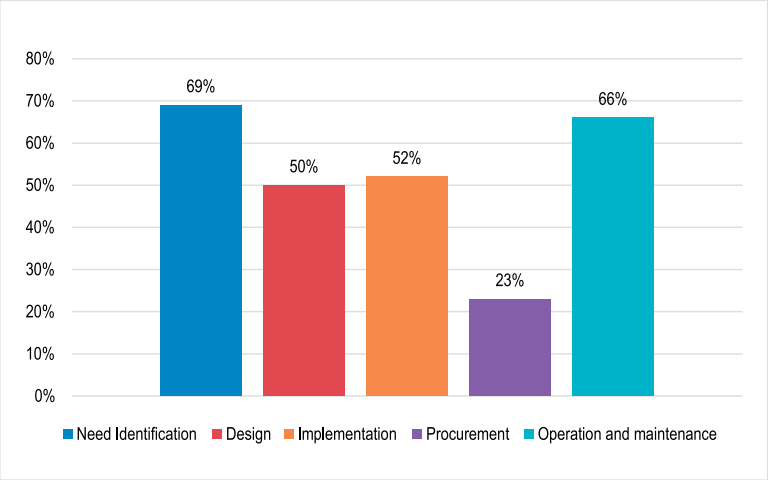


Figure 13 Participation of HHs in CPI Implementation

Most beneficiary HHs participate in the CPI implementation and continue doing so during project implementation, operations, and maintenance-though the participation falls once the needs have been identified. For example, HH surveys showed that nearly 46 (forty-six) percent of respondents were members of committees set up for project implementation, i.e., project committee, procurement committee, audit committee, and O&M committee. In addition, the HH survey suggested that starting from the need identification process, 69 (sixty-nine) percent of the respondents were involved in the need identification process, and 67 (sixty-seven) percent responded that their household was involved during the scheme's survey.

A majority of the HHs participate in CPI-related meetings. The participation of the local community and members in monthly meetings was reported during the HH surveys, as shown in Figure 14.

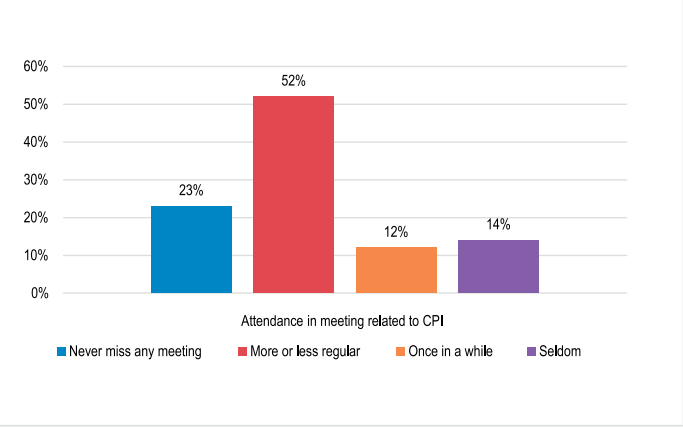


Figure 14 Community Participation in Meetings Related to CPI

4.6 Women's Participation

IPs reported that 50 (fifty) percent of the members in all CPI implementation committees are women. Women have formed their CIs in beneficiary districts of the BRACE Programme and have the platforms to discuss their needs. In the visited twenty-one UCs of the three districts.

- 419 female CIs have been formed, and,
- A total of 838 women are in leadership roles as president and general secretary of CIs.

These women manage their respective CIs, which include deciding the agenda for a meeting, organizing and moderating meetings, recording minutes, collecting cash savings from CI members, record keeping, and maintaining books of accounts. Women are also part of CPI implementation, procurement, and O&M committees.

4.7 Sharing the Capital Cost of CPIs

It is part of the partnership obligation that the community contributes its share in the construction phase of CPI in different ways, including cash and kind (time spent by community members for monitoring, procurement, supervision, and looking after records and communication and coordination with IP and donors, monitoring and evaluation and study teams and missions and line department and joining JDDC meetings).

HHs in nearly all the UCs contributed to the project's capital cost. As shown in Figure 15 below, comparatively, residents of Pishin and Khuzdar contributed more than the residents of Kech district-but in real terms, this is primarily because of the higher unit cost of the schemes in Pishin and Khuzdar (BRSP as the IP) than in Kech (NRSP the IP).

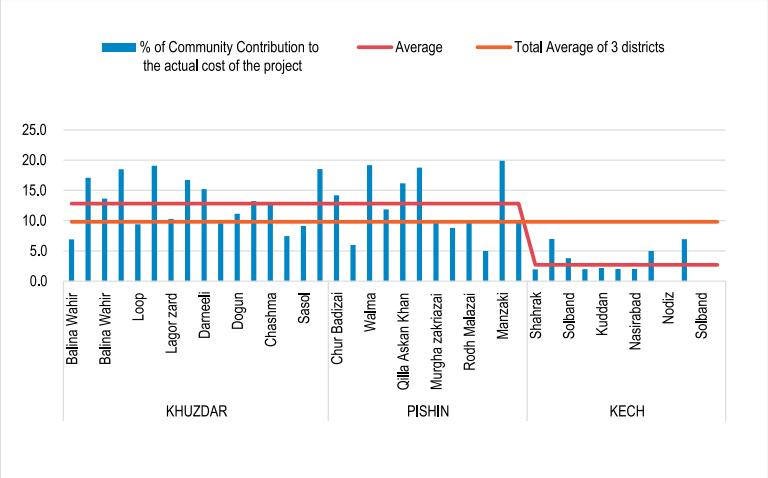


Figure 15 Community Contribution in Capital Cost of CPIs

This difference in contribution can be attributed to the nature of schemes, the relative number of disadvantaged HHs, age of CIs and VOs/LSOs, and other factors discussed during the FGDs. Still, detailed identification was beyond the current scope of this assessment.

4.8 Operating and Maintaining the CPIs

One of the CI's key obligations is to take responsibility for the O&M of CPI after its completion. General observations worth mentioning as a finding from the surveys are as follows.

Upstream contributions by HHs towards future O&M costs - A practical demonstration of the partnership between IP and VO ensures that at least 3 (three) percent of the cost of CPI is collected from potential beneficiary HH and deposited in their bank for O&M of completed CPI.

High level of HH participation in O&M committees - Another key measure is the level of membership and participation in the O&M committees - Figure 13 (earlier in this chapter) shows that 39 (thirty-nine) to 46 (forty-six) percent HHs reported participation in the CPI O&M committees.

Box 1 Prevalence of Water User Fees

Prevalence of Water User Fees, DWSSs

In the specific case of DWSS's, in most cases, VOs have introduced water user fees in water supply CPI, which appears to be a good breakthrough in ensuring that local community takes ownership of CPI and takes responsibility for the O&M to ensure perennial benefits from CPI.

A more specific discussion on O&M is in the scheme-wise findings discussed in the following chapters.

Figure 16 FGD in UC Dogun District Khuzdar

5- Outcome Assessment of Drinking Water Supply Scheme (DWSS)

This chapter assimilates findings for assessing outcomes from the implemented DWSS schemes. The assessment focuses on relevance, immediate impact, and community perception of the outcomes associated with DWSS.

Box 2 Relevance as relating to this present

Relevance as relating to this present assessment

Relevance in this context has been considered by assessing gaps between priority needs identified in the VDPs/UCDPs and implemented schemes.

Effectiveness, which is also related, in that it determines if money was allocated to the most effective use, also covered under relevance in this assessment.

Efficiency, which is treated as delivery efficiency covers technical and financial efficiency, including maximisation of the achievement of the desired output. Since the technical assessment of the CPI schemes was conducted recently in 2021 (refer to earlier explanation in this report), the present assessment looks at sufficiency of outputs achieved as a measure of efficient delivery, e.g., was sufficient drinking water a result of the intervention and was this water enough to be put to multiple uses associated with water-piped-to-house-taps in developed areas, are taken as measures of sufficiency and thereby that of efficiency.

Note that this definition applies across the board in discussions on the four types of CPI interventions selected for this assessment.

Around 70 (seventy) percent of the schemes completed under the CPI component of the BRACE Programme are DWSS, which are further divided into three main sub - types - solar - powered, gravity-flow and electricity-powered DWSS - for conducting this assessment (refer to Annex G for more details).

5.1 Relevance of DWSS

The BRACE Programme DWSS CPI schemes were highly relevant to community needs – when asked about relevance to the community's actual needs, 89 (eighty-nine) percent of respondents said that the scheme was highly relevant to their identified priority needs (Figure 17).

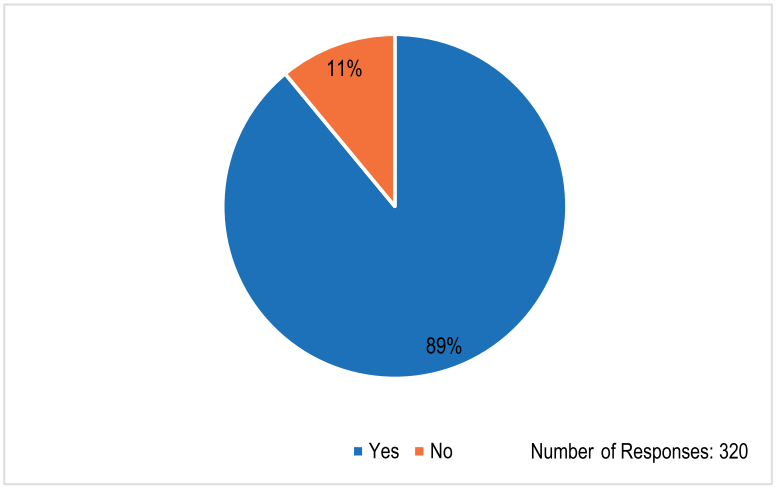


Figure 17 Relevance of DWSS to the Priority Needs

The drinking water supply in the beneficiary communities was limited before the BRACE Programme. They also confirmed that before the implementation of DWSS under the CPI BRACE component, beneficiary villages had very limited access to safe drinking water, and an overwhelming 96 (ninety-six) percent of the respondents responded in affirmative (Figure 18). This indicator shows the allocational efficiency within the BRACE Programme CPI schemes.

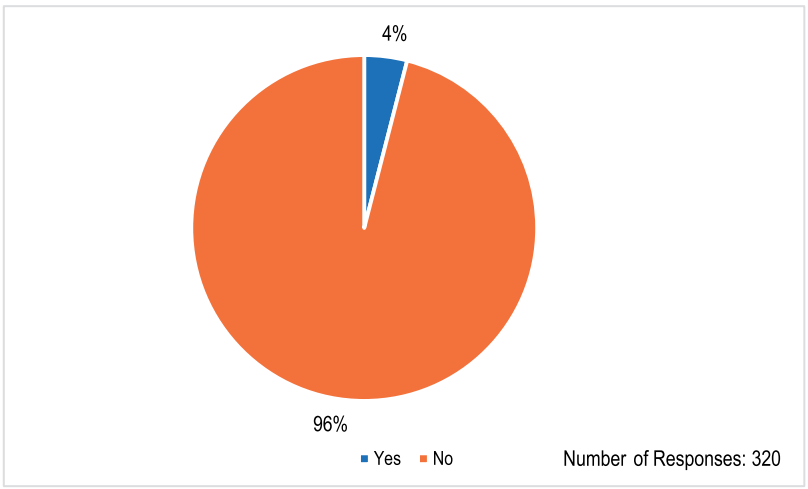


Figure 18 Was the Water Enough for Daily Use Before the CPI?

Water availability after the BRACE DWSS implementation was sufficient for multiple daily HH applications - After implementation of DWSS, 90 (ninety) percent of the households reported that water was enough for everyday use (Figure 19).

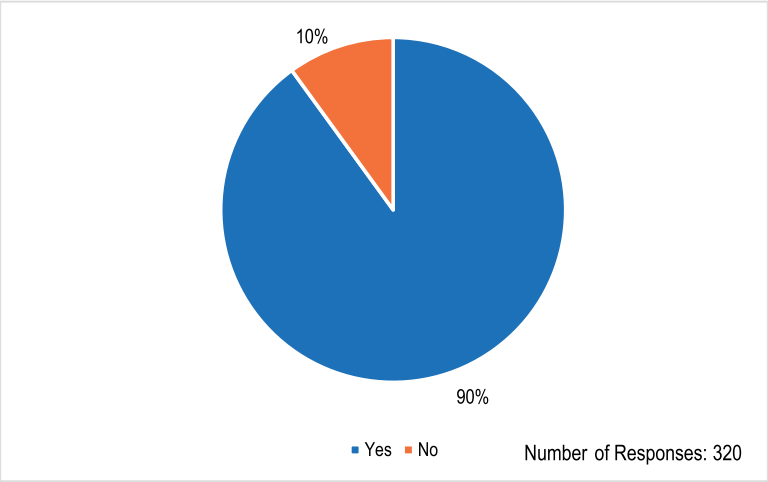


Figure 19 Is the Water Enough for Daily Use After the CPI

Apart from using water for drinking purposes, the DWSS has also addressed the community's water needs for the daily needs of the HHs, including washing, kitchen gardening, and cleaning. Figure 20 shows key uses of water in HH for all three districts. In this assessment, the number indicates that apart from access to clean and safe drinking water, DWSS benefitted HH in daily activities, such as washing, bathing, cooking, kitchen farming, livestock, etc.

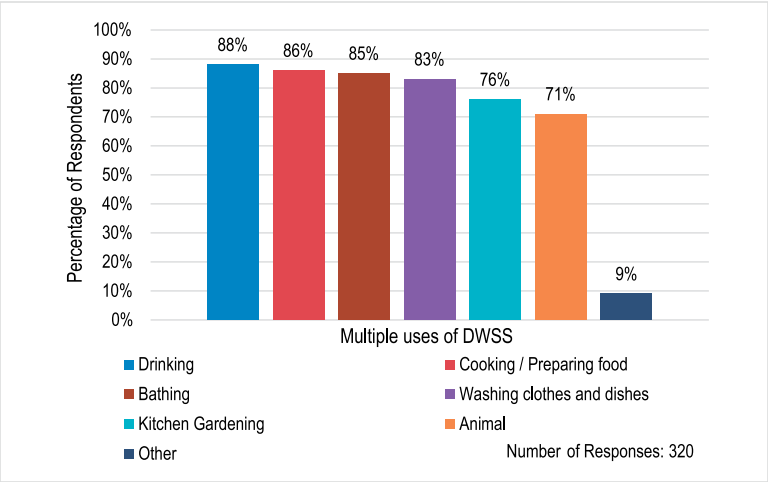


Figure 20 Key uses of Water in all three districts

5.2 Immediate Impact of DWSS

The BRACE Programme's immediate impact of DWSS CPI schemes is gauged through the assessment of outcomes for social, economic, and environmental impact. It also provides insights into the immediate impact of DWSS on women and their daily lives and livelihoods.

5.2.1 Social Impact of DWSS CPIs

DWSS in the beneficiary communities empowered the HHs after the BRACE Programme. The community not only identified needs but fully participated in the project cycle, including construction, monitoring, procurement of materials, and hiring labour. As shown in Figure 21, 90 (ninety) percent of the community said that CPI schemes empowered their HH.

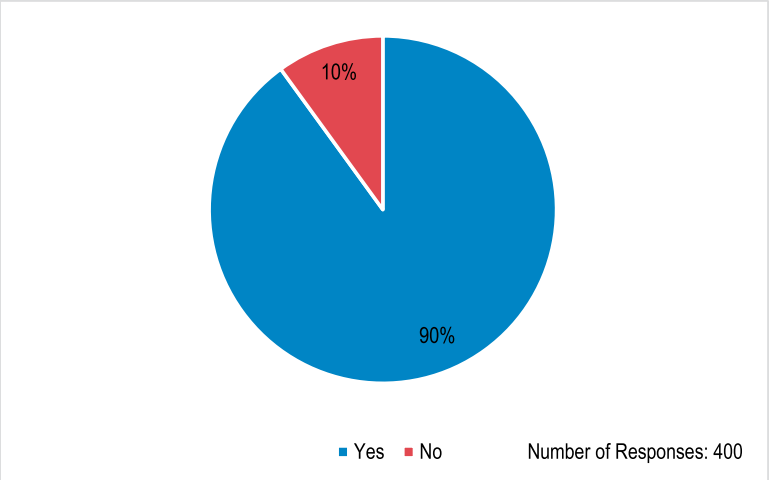


Figure 21 Did the involvement of the CPI implementation cycle empower your HH?

Detailed expert FGDs and KIIs and the combined assessment revealed the following causes behind the empowerment.

In most cases, for the first time, a common priority need of the community was completed without a contractor-or partly through a sub-contractor. This enhanced confidence and capacity of people at the grass-roots level to plan and implement infrastructure activities of their choice, which have a common benefit for the community.

DWSS improved

- The communities' external networks along with enhanced communication skills to negotiate with actors outside the community, and
- Increased communities' social cohesion and self-dependency through their involvement in the project implementation process.

Community contribution in CPI has developed a sense of ownership which could be beneficial for contribution to future community development projects.

The community's hygiene behaviours and conditions have significantly improved after the implementation of DWSS under the BRACE Programme, particularly for children and women. However, as before implementation, due to distant water sources, the hygiene conditions of communities were compromised.

The workload for women and children has reduced as water-fetching was primarily their responsibility. In addition, DWSS has enabled them to engage in other livelihood activities, including personal well-being.

Social Impact on women empowerment after implementation of DWSS under the BRACE Programme was prominent, with women being nearly 50 (fifty) percent of the beneficiaries. They are empowered through (a) participation in needs identification exercises and (b) being part of the committees for project implementation, procurement, audit, and O&M.

Nearly all beneficiary women utilise the time saved from fetching or organizing water in social activities such as spending more time with family and providing quality time for themselves and their livelihoods. In addition, time saved has also resulted in an increased frequency of female CIs' monthly meetings and the attendance therein.

Overall, community Organisations have been strengthened because of the DWSS implementation-96 (ninety-six) percent of community members agreed that the schemes had strengthened their CO/VO/LSO.

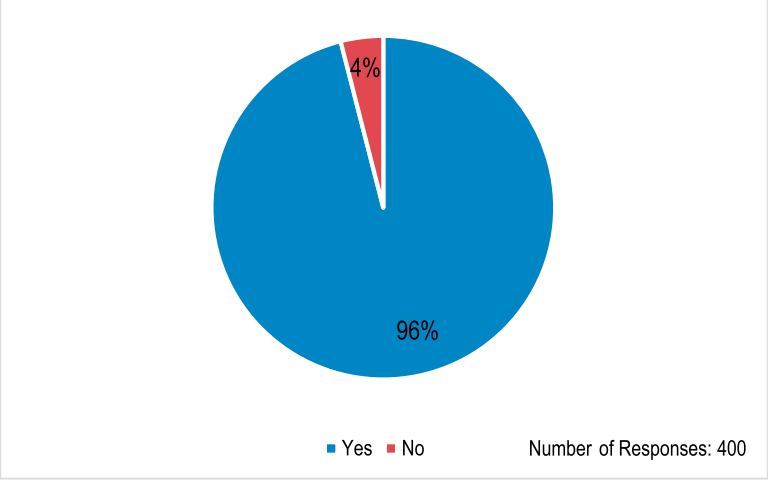


Figure 22 Has the implementation of CPI strengthened your CO/VO/LSO?

5.2.2 Economic Impact of DWSS CPIs

The BRACE Programme DWSS CPI scheme's immediate economic impact identifies the community's economic benefits.

Women are the primary gainers from the implementation of the DWSS and are utilizing their time savings in economic activities such as seamstress work, agriculture, and marketing. Figure 23 shows the economic impact of activities performed against the time saved by women after the DWSS scheme.

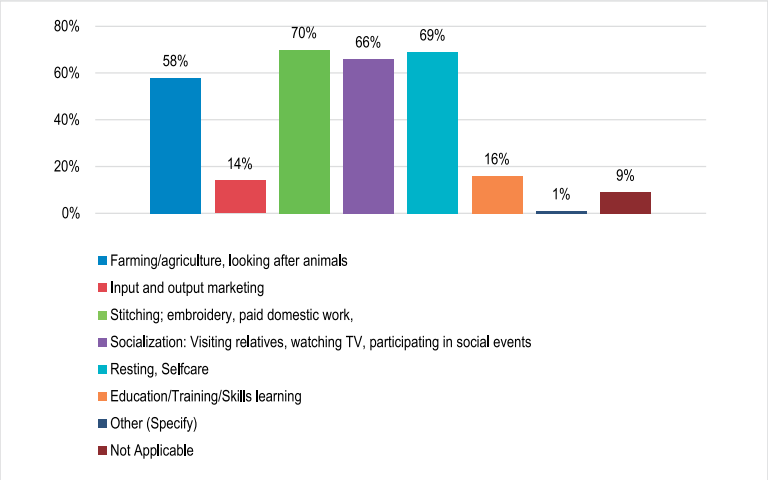


Figure 23 Economic Activities in Saved Time by Women

All genders are utilizing time savings due to DWSS implementation being deployed towards productive household, economic and social activities. As a result, the beneficiaries have saved 2 (two) hours per day.

The distance travelled for fetching water was reduced from approximately 2 km to 0.2 km, significantly reducing labour involved in the process. This effort is now being utilised in economic activities such as children attending schools and women and men participating in productive activities (including kitchen farming and livestock rearing).

Box 3 TVET - Utilisation of Time Saved by Women

TVET - Utilisation of Time Saved by Women

The water fetching time saved after DWSS schemes have also enabled women in UC Kuddan of district Kech to participate in Technical and Vocational Education and Training (TVET) under BRACE Programme. Post-implementation of DWSS, women in this settlement started opting for training to upgrade their skills. Different trainings were delivered, including sewing, handicrafts, and embroidery. The rural women were also trained in marketing of their products and capitalise on their skill set to contribute towards improved lives and livelihoods for themselves and their families by participating in economic activities.

HH access to portable, clean, and safe drinking water has lowered their monthly expenditures relating to health and hygiene by an average annual expenditure of 3,600 PKR per HH-based on HH responses. The overall potential impact is estimated at 1.1 bil PKR/year for the 300,000 targets HH. In perspective, this is like making 1.1 bil PKR available each year for other HH investments - social and economic! All this is simply because the pre-BRACE Programme water sources were not tested for drinking and often resulted in health - related issues, and HHs, now have access to clean water for drinking and other HH applications.

Reduced workload for women and children resulting from the DWSS implementation under the BRACE Programme has increased women's incomes, with the Programme interventions contributing 4.8 bil PKR/yr. To the economy of the 10 districts and 16,000PKR/yr./HH (refer to Table 7). This is almost the same as the impact of the ESHAS HH-wise cash transfers but self-sustaining. Time saved is spent on livelihood activities, such as embroidery, handicrafts, and increased participation in the HH and community decision-making process through female CIs. Women now have time and effort saved from water fetching to upskill themselves and take part in the livelihood enhancement of a household. One example came from Kech, where they prepare traditional Balochi dresses with embroidery in four months. Its average sale price is 40,000PKR which is a good source of income for women and HH and a source of personal income satisfaction.

Table 7 Increase in Women's Income from DWSS Implementation under BRACE

1	Household Number	300,000
2	Embroidered dress (PKR)	40,000
3	Typical Household (HH) Percentage	10
4	Typical Annual Sale per Quarter (PKR)	1,200,000,000
5	Yearly Sale (PKR)	4,800,000,000
6	Added Income per HH per Year	16,000

It is not merely an individual activity but also a social activity where women with common interests get together to perform this activity. Women also occasionally engage in paid domestic work in the saved time.

The limited study time and resources for this assessment did not provide detailed exploration to understand the dynamics of private water contractor purchases versus community-owned DWSS with user fees; the following Box 4 provides some anecdotal evidence of the DWSS benefits in UC Yaro 2 and UC Solan.

Box 4 DWSS: Contributing to Financial Wellbeing of Rural Communities

DWSS: Contributing to financial wellbeing of rural communities

In Killi Hajji Abdullah Jan, UC Yaro 2 of district Pishin, a DWSS scheme has been implemented with a total cost of PKR 2,014,495. The scheme is providing clean drinking water to 314 households. Before this scheme, most of the households in this village were buying water from water-tanker suppliers. An average price paid by each household was PKR 2,500 per month, out of their household expenses, including the education and wellbeing of their children.

In UC Solan, sixty-five households were paying PKR 3000 each as electricity bills for uplifting groundwater for their daily use through electric motors. However, after the implementation of solarised DWSS in village, the amount is now saved increasing their purchasing power and savings.

Communities are exploring direct DWSS O&M relevant job creation opportunities, and localised success is visible and can be scaled (Box 5).

Box 5 Creating Jobs Linked Directly to DWSS: Learning from VO Khori Kumbro

Creating Jobs linked directly to DWSS: Learning from VO Khori Kumbro

VO Khori Kumbro, UC Sasol, district Khuzdar – This DWSS was constructed by the VO without hiring any contractor. Soon after the completion of DWSS CPI in 2020, VO decided to hire at least one person to look after O&M of CPI. The VO also decided to introduce water user fee. In VO meeting, it was decided to offer position to two individuals, both were disabled persons from village. First job offer was made to Mr. Abubakar but he refused with the perception that HH water users will not pay the user fee. Mr. Saeed accepted the offer. His mobility is partly challenged due to a leg disability—but this has not thwarted his commitment and performance. He is now hired as an operator for the DWSS. Saeed's family comprises of his parents, wife and two daughters. He is a landless person, owns three goats and used to work as a daily wage worker before implementation of the CPI. His key role is to clean solar plates and ensure smooth operation of solar system installed for lifting groundwater for four hours daily. Saeed is being paid by thirty households, each 150PKR per month which comes to 4,500PKR per month. Its challenging for the VO to collect water user fee from remaining seventy households—this is where the IPs need to enhance and sustain their social mobilisation effort. By September 2021, a total of seventy-seven DWSS have been completed by CIs in the BRACE Programme area. Apart from ensuring smooth operation and maintenance of CPIs, hiring one person by CI/VO at each completed DWSS CPI, site can create seventy-seven jobs at local level, which is most needed and is desirable.

5.2.3 Environmental Impact of DWSS

DWSS schemes implemented under the BRACE Programme have encouraged women's tree plantation and sustenance agriculture!

After the implementation of DWSS, water provided is being used for growing plants and watering kitchen gardens in beneficiary villages. Wastewater from the community tap is channelled into growing plants, increasing green cover even in arid areas such as Mayar Jamal Ward, UC Nodiz in Kech district, and at Peer Kund, UC Loob, Khuzdar District.

Figure 24 UC Nodiz Districtt Kech

After implementing DWSS schemes, NRSP has motivated each beneficiary to plant at least two trees per HH for increased green cover and to complement the efforts of GoB in improving the physical environment locally. BRSP in district Khuzdar, collaborated with the forest department to provide 10 (ten) plants per VO.

Figure 25 UC Loop District Khuzdar

The community's solar-powered groundwater extraction is often unregulated by the community, which lowers the groundwater table, especially in Khuzdar. The negative environmental impact of DWSS is that groundwater extraction is lowering the groundwater table, especially in District Khuzdar. In addition, the unchecked and unmonitored water uplifting is causing existing wells to dry off. The public health department in Khuzdar reported during the JDDC meeting that 7 (seven) water wells in Khuzdar city have dried off since January 2022 because of the lowering of groundwater level.

Figure 26 UC Balina Wahir of District Khuzdaar

Stream-water-based gravity flow and piped schemes potentially dry out the en-route vegetation before tanking and water piping. In village Chashma, Murad Khan, UC Balina Wahir, 35 KM from district Khuzdar, due to a gravity flow scheme, water from a natural spring is stored in water tank via pipe. Before implementation, water was brought to the village via an open water channel to irrigate the date orchard and allow vegetation. However, after the water supply through pipes has left the date orchard and open space dry, there is no room for water seepage and irrigating the date orchard. Several date plants along the previous water channels have dried off due to water shortage.

IPs' capacity for engineering and environmental safeguards assessment needs improvement-innovation will be key in developing this as the current model of multi-sector 'specialisation' and provision by a single IP is not workable-neither efficient nor effective.

5.3 Community Perception and Satisfaction in delivery of DWSS

Reduction in effort to fetch water, improvement in quality of water, adequacy of provided water, reduced prevalence of disease, and benefits for women and children, are the underlying causes for the HH satisfaction and positive perception of the BRACE Programme DWSS CPI schemes. The benefits and outcomes associated as reported by the community are listed in the Figure 27.

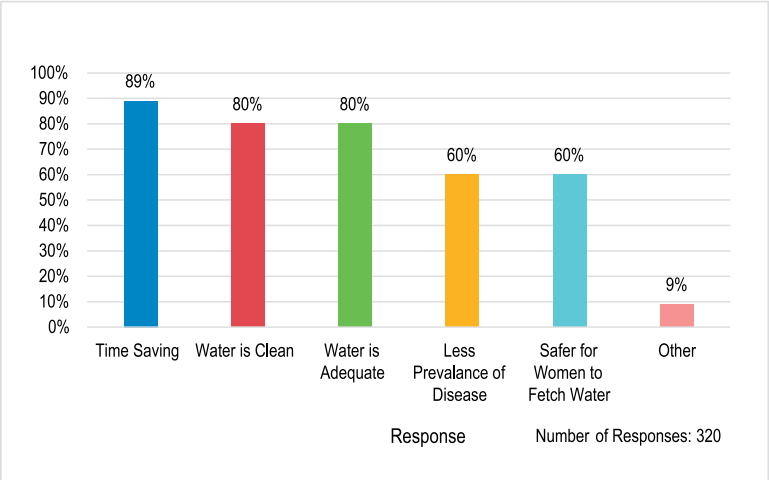


Figure 27 Benefits of DWSS

After the implementation of DWSS schemes, HHs got access to clean water with an average distance of 200m from their houses-substantially reducing women's workload. In addition, as mentioned earlier, time saved from fetching water is now spent on economic activities and contributing to the HH economy, particularly for women representing DWSS beneficiaries

The average distance of the water source from HH was reported to be 1.7 km away. Discussions during the FGDs further clarified that earlier, women spent an average of two hours daily fetching water from faraway water sources. However, after the implementation of DWSS, they now have a source within their village/ settlement. Figure 28 and Figure 29 show the visits per week and time spent fetching water before and after the BRACE intervention.

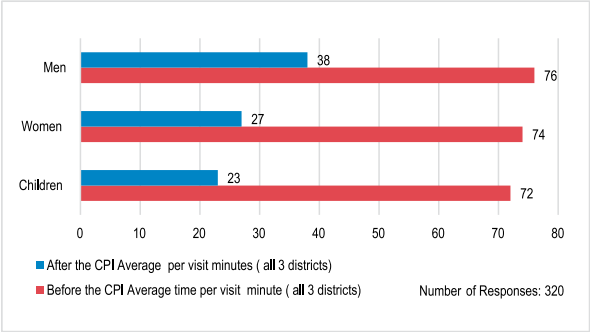


Figure 28 Time Consumed to Fetch Water

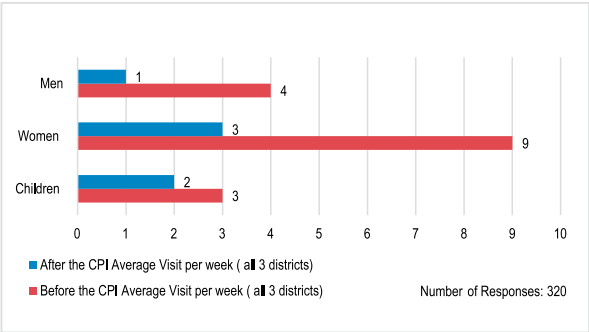


Figure 29 Visits Per Week to Fetch Water

The HHs reported that there was no safe drinking water before the implementation of DWSS, which frequently caused water-borne diseases such as diarrhea, hepatitis, and other gastrointestinal issues. However, water is tested[8] before the implementation of each BRACE Programme DWSS for its physical and chemical qualities; thus, water quality proved it's fit for health. This has reduced the average expenditure of HHs on health by 50 (fifty) percent.

5.3.1 Gender inclusion in the delivery of DWSS

BRACE Programme DWSS schemes have specifically impacted women's lives as demonstrated by the availability of spare time to invest in personal social and economic activities. In addition, the impact on them of the overall improved hygiene, and the HH incomes saved due to reduced health expenditures, to name a few. This assessment has included gender integration aspects in all phases of the analysis, and a stand-alone elaboration has not been included on gender issues. Still, expanding on and regurgitating a few key points presented earlier in this report, a quick summary follows.

Since water fetching is mostly women's responsibility in rural areas or, in a few cases, delegated to young children under the supervision of women. DWSS implementation enabled communal taps and nearby drinking water sources, which helped improve women's health, especially for old and pregnant women.

In a few cases, the community reported that DWSS are designed to construct water-fetching points/clusters at different locations of the village to allow women to interact and socialise while fetching water near their HH. It was also reported during the expert's visit that water fetching points are constructed keeping in view local norms, i.e., in locations where women can easily fetch water without any social hindrance. Furthermore, as explained in earlier sections through quantitative and qualitative feedback, time saved from fetching water is consumed in productive and sometimes economic activities such as embroidery and livestock management. Thus, females also participate in the rural economy and have more time to care for their children and home.

DWSS has socially and economically empowered local women through active participation in different stages of project implementation. Enabling them to use their time more effectively and participate in the decision-making process more frequently through female CIs, for example, receiving TVET training under the Programme to participate in income generation activities.

[8] In the case of Kech, water was tested initially from PCRWR Karachi, but later, at the request of communities, a water testing facility was established at Turbat University. Water in Khuzdar and Pishin was tested at PCRWR Quetta.

6. Outcome Assessment of Drainage and Sanitation Schemes (DSS)

This chapter assimilates findings for assessing outcomes from the implemented DSS schemes. The assessment focuses on relevance, immediate impact, and community perception of the outcomes associated with DSS.

Around 2 (two) percent of the schemes completed under the CPI component of the BRACE Programme are DSS. The types of DSS implemented are PCC Drainage Channel and Communal Toilets (refer to Annex G for more details). Based on purposive sampling, of the forty (40) CPI schemes selected across the three (3) sampled districts, two (2) DSS schemes were selected as typical examples. One of the two selected schemes in UC Manzaki was completed, whereas the other one in UC Malikyar is still under construction, leading to a very limited sample for the experts' assessment—while the overall HH sample was adequate at 20 plus HH.

6.1 Relevance of DSS

The BRACE Programme DSS schemes were highly relevant to community needs, and the community is demanding more of these - Community reported and emphasised the need for having a fully functional DSS scheme. The HHs have also participated in the need identification process for the CPI scheme, indicating that the scheme implemented is highly relevant to the community's needs. The need was indicated in VDPs and UCDPs.

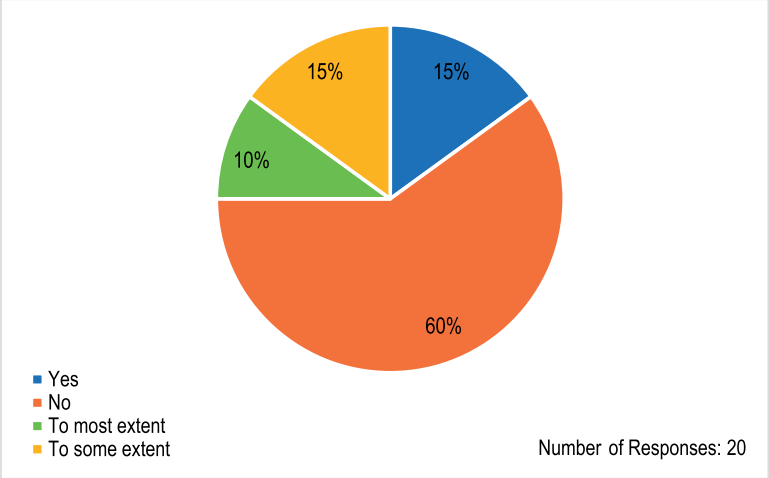


Figure 30 Relevance of Drainage Scheme

The HH surveys also indicated further need for DSS, as Figure 30 shows that only 15 (fifteen) percent of HHs responded that the CPI scheme fulfilled their priority needs. Whereas a majority, 60 (sixty) percent of the respondents, have identified that schemes are not enough to fulfill their needs of DSS, rather they need further DSS to meet the needs of most HHs in their localities-refer to Box 6.

In the future, programs such as BRACE should consider the pros and cons of emphasizing geographical spread as resource limitations result in a very thin spread of interventions. This lessens impact as, despite high relevance, the needs are not addressed adequately. Providing DWSS, as an example, enhances the requirement for DSS, and both are complimentary. Education and commercial community-driven or RGS

also require enhancement to cater to improved health, increased availability of time, and opening of avenues for women's income. The common excuse from implementing partners and governments is the need for equitable distribution of resources and maintaining regional harmony within and across districts. Increasing

Box 6 Equity or Allocational Efficiency in the face of limited resources - Community Toilets in UC Solband

Equity or Allocational Efficiency in the face of limited resources – Community Toilets in UC Solband, District Kech

Expert field team also visited community toilets in UC Solband of District Kech which was not among the selected sample of CPI schemes. The community has benefited from the construction of the facility and deemed it very relevant, however, highlighted the need to increase the number of toilets to enhance accessibility for the community, particularly women.

Figure 31 UC Manzaki District Pishin

resources and not equitable allocations are the answer; otherwise, this is a poor fiscal or simply allocational efficiency. This inevitably threatens sustainability.

6.2 Immediate Impact of DSS

The social, economic, and environmental impact of the DSSs implemented under the BRACE Programme is assessed based on outcomes reported by communities, CIs/VOs/LSOs, and IPs during the HH surveys and experts' field visits.

6.2.1 Social Impact of DSS

DSS schemes have directly impacted the social uplift of the beneficiary HHs through cleaner environments-ODFC, improved hygiene, the appearance of localities, intra-community mobility, and a heightened sense of self-worth.

In a typical open drainage DSS, waste and rainwater were managed in DSS CPI implemented under BRACE Programme, which normally remains in the streets. Open drainage as a sub-type of DSS is constructed for approximately 132 HHs. Health and Hygiene is improved under this assessment as wastewater and rainwater accumulated in the streets are now catered with as they used to result in filthy streets with mosquitoes and other insects and bad smells.

Like in other CPI, in selecting the DSS, the needs of remote and vulnerable groups are addressed through a transparent and participatory approach empowering the HHs constituting the communities. As in other cases, in the case of the DSS, the monthly meeting mechanism of CIs has strengthened community integration for collective development actions. For example, in some cases, relatively less-poor HHs paid off

the overall required community contributions. On the other hand, the extreme-poor HHs were exempted, demonstrating the spirit of caring and sharing, and ensuring inclusive development.
CIs have established a committee responsible for cleaning the system twice a month. Impact on children having a better quality of life; they play in clean streets and remain healthy; the village has a hygienic environment. In addition, women can now save time for taking care of sick children and other family members who are falling ill due to the unhygienic conditions of the community caused by a lack of proper DSS.

6.2.2 Economic Impact of DSS

The DSS schemes implemented under BRACE Programme have lessened HH health expenditures by 50 (fifty) percent on an average and added 0.86milPKR/yr., towards HH savings/additional income.

In UC Manzaki, Pishin, due to the implementation of DSS, health expenditure has decreased significantly from 14,500PKR per annum to 6,500PKR per annum. This average decrease reverified during the experts' FGDs and KIIs and appeared relevant to all DSS schemes irrespective of the sub-type. Table 8 explains the potential additional income that could be gained by present coverage and possible enhanced coverage.

Table 8 Economic Impact of DSS

Sr. No.	Economic Impact of DSS	
1	Number of DSS Open Drainage Schemes	4
2	Beneficiary Households	132
3	Savings to Households (PKR per annum)	858,000
4	Current Coverage, (HH %)	0.04
5	Potential Coverage overall, (percentage)	1
6	Total Number of BRACE HH	300,000
7	Typical Saving in Health Expenditures, PKR/HH	6,500
8	Potential Saving to BRACE HHs, PKR/annum	19,500,000

A detailed cumulative CPI impact can be carried out later as part of the post-completion assessment of the BRACE Programme; however, for now, it suffices to understand that potentially, if BRACE Programme manages even a one (1) percent coverage under the current investment, there would be a total saving/ additional income of 19.5milPKR/yr., in nine districts-available for other social and economic activities by the HHs.

Another aspect that this present assessment could not cover is understanding possible appreciation in HH properties' values due to improved common DSS-this can be included in the post-Programme evaluation.

6.2.3 Environmental Impact of DSS

Paved open DSS reduces sewage infiltration into the ground water and generally in sub-surface, reducing prevalence of disease, while improving visual aesthetics and reducing bad smells and breathing (as many of the festering gases causing the foul smells are also harmful to human health). Land and water pollution is reduced under the DSS CPI implemented under The BRACE Programmer. With the construction of open drainage waste and sanitation scheme, drainage is drained into a stream outside the village. However, this needs an improved management system as it used to contaminate agricultural land and was potentially polluting the environment. Drainage system construction has reduced stress on

Figure 32 Drainage and Sanitation Scheme, UC Manzaki

ecosystem support by providing adequate wastewater infrastructure at the village level. It improved public and environmental health as it helped prevent water-borne diseases, avoiding land and water pollution and groundwater contamination. Public toilettes and other DSS sub-types have similar impacts.
DSS, especially drainage, needs to address the outfall issues. While the HH are happy about the sewage being removed from their immediate environment, they do not seem aware of their impact on the areas where the outfall lies - often natural streams.

6.3 Community Perception and Satisfaction in delivery of DSS

The BRACE Programme Community Perception and Satisfaction in delivery of DSS reported during the FGDs that drainage water contaminated agricultural land and was polluting the environment before the construction of the drainage scheme. In addition, rainwater and wastewater drained into the streams or other places outside[9] the village, which positively impacted the community's quality of life, health, and hygiene.

Figure 33 DSS Schemed, District Pishin

A biased response, primarily due to the inadequacy of the number of DSS provided versus the actual need, was that the limited 20 HH sample commented negatively on the satisfaction with the DSS (Figure 34). 50 (fifty) percent of respondents noticed no change, and 35 (thirty-five) percent of respondents reported improved health and hygiene with a 50 (fifty) percent reduction in annual health expenditure per HH. However, 15 (fifteen) percent reported worsening the situation after the CPI scheme. This suggests developing a further understanding of where and what to improve.

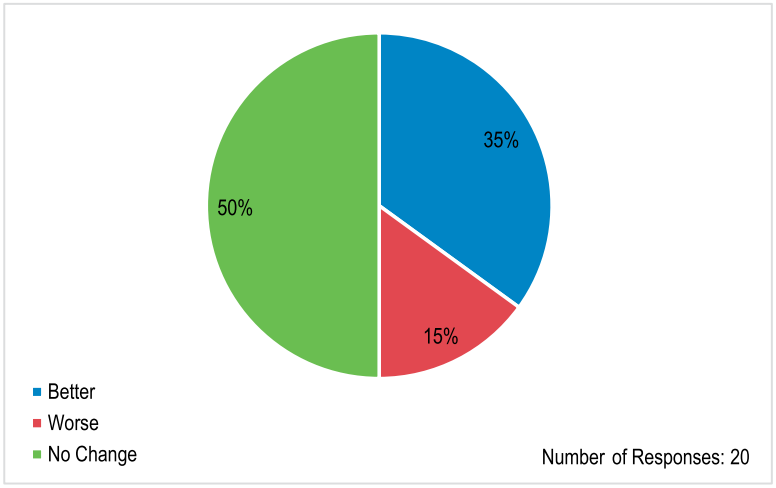


Figure 34 Impact of Drainage Scheme on Health

6.3.1 Gender inclusion in the delivery of DSS

The BRACE Programme Gender Inclusion of DSS assessed DWSS and DSS schemes reported as the most relevant among the needs identified during women's CIs meetings.

Like DWSS, women have particularly benefited from DSS and reported that the construction of drainage schemes had enabled the female population to be more socially active. Before the implementation of DSS, poor sanitation in UC Manzaki, District Pishin faced frequent illness through water-borne diseases, which led to women taking time off other HH activities and burdening them with increased medical expenses and extra care. The targeted communities are among the most disadvantaged and face poor drainage and sanitation challenges. DSS has enabled women to socialise as they now interact more often with other women. DSS has also enabled them to partake in more productive activities outside their homes with the time and money saved from additional burdens caused by mental and physical health concerns arising from poor drainage facilities in the locality.

[9] Refer to earlier comment about the overall negative impact this could create

7- Outcome Assessment of Flood Protection Wall (FPW)

This chapter assimilates findings for the assessment of outcomes from the implemented FPW schemes. The assessment focuses on relevance, immediate impact, and community perception of the outcomes associated with FPW.

Around 19 (nineteen) percent of the schemes completed under the CPI component of the BRACE Programme are for flood protection, with the main flood protection structures being Levee, Gabion, and Wall (FPW). Based on the available data, seventeen (17) FPWS, one (1) Gabion, and one (1) Levee have been implemented. Based on purposive sampling, of the forty (40) CPI schemes selected across the three (3) sampled districts, one (1) DSS schemes were selected as a typical example.

As per data provided by the IPs, FPWs were only constructed in district Kech, and four projects were completed until this study's inception. Out of the four completed projects, the following two were selected for this assessment study.

Table 9 Districts Selected for FPWs

#	UC	Concerned VO
1	Nasirabad	VO Meer- Bazar
2	Nodiz	VO Nodiz

The selected FPWs were in District Kech (refer to Table 9), built to protect against flood threats impacting the lives and livelihoods of the community HHs. The HHs in the Kech District reported the loss of land due to flood damage and damage to public facilities, and there was a potential threat of HH destruction. The experts' FGDs and related KIIs were thus conducted here and with related institutions based on the agreed sampling and survey plan. The related overall HH sample was 20 HH.

7.1 Relevance of FPW

The FPW was a relevant CPI intervention and needed having been included in the UCDP and there being unified consensus on the need during the surveys. The FPW has responded to the community's priority needs under the BRACE Programme. According to the respondents, no FPW was built in the vicinity before the BRACE-funded CPI was implemented. On inquiring about the last event of a flood, 100 (hundred) percent of respondents reported the latest flood in the village in 2019.

The FPW was adequate, as, after the implementation of the FPW, 75 (seventy-five) percent of the respondents agreed that the FPW have provided mitigation measures and has fully saved physical assets, including land—refer to Figure 35, which charts the FPW beneficiary HH responses.

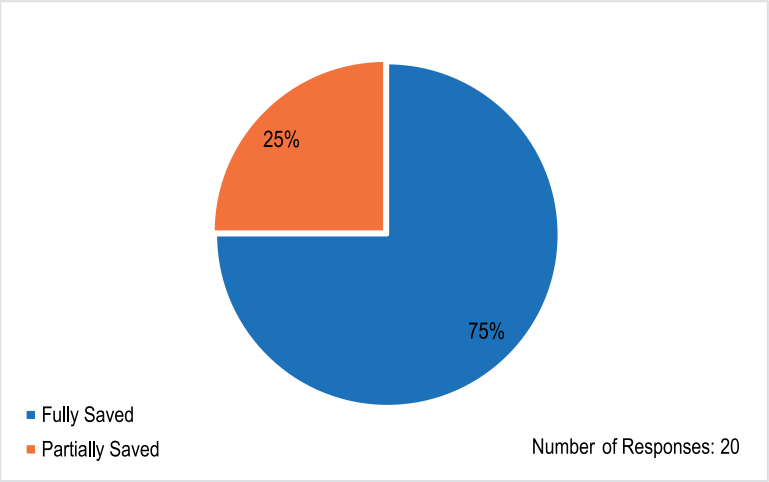


Figure 35 Capacity of Flood Protection Wall to Save Assets

To further clarify adequacy, when asked about the ability (and not the capacity) of the FPW to save houses and land in case of future floods, 90 (ninety) percent of respondents believed that the mitigation measures would prevent damages from potential floods.

7.2 Immediate Impact of FPW Implemented under BRACE Programme

The social, economic, and environmental impact of the FPW implemented under the BRACE Programme is assessed based on outcomes reported by communities, CIs/VOs/LSOs, and IPs during the HH surveys and experts' field visits.

7.2.1 Social Impact of FPW

The BRACE Programme Social Impact of FPW is a civil works-based structure constructed to protect against flood threats that normally destroy HHs of people. The FPWs are constructed near settlements to protect homes and their nearest possible agricultural land-more aptly, kitchen gardens. In the context of Kech, land destroyed by the flood is now protected post construction of FPWs. The community reported the following immediate outcomes for FWP schemes.

HH reported enhanced social cohesion and a sense of security against disasters hitherto perpetuated after the floods. After the FPW CPI, the HH has developed a sense of security against floods. There is a reduced threat to community assets, including houses, schools, mosques, livestock, and land, from being flooded due to heavy rain. In addition, after the implementation of FPW, there is greater cohesion within the CIs.

Shared public assets are now secured against floods allowing the community to consider investing in further development. In addition, proximate public infrastructure such as roads and health facilities are protected against floods. As shown in Figure 36, 65 (sixty-five) percent of community members responded that there is a reduction in operating costs of public assets.

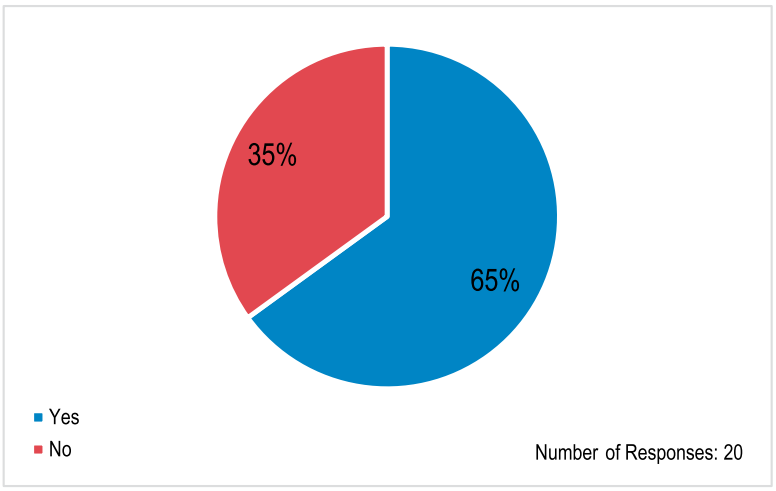


Figure 36 Reduction in operation cost of shared public assets

FPW has facilitated decision support systems of the community for investing in new land. New land has been developed, and the existing land is secured from flooding.

7.2.2 Economic Impact of FPW

The direct economic impact of FPW is realised in the increased value of land, a lessened risk to HH investments in housing, and an increase in sustenance agriculture.

Box 7 FPWs in District Kech: Yield Improvement Not Applicable to Arable Land

FPWs in District Kech: Yield Improvement Not Applicable to Arable Land

During the FGDs, it was reported that the main agricultural produce of both the UCs include dates, watermelon, mango and lemon which are used for domestic consumption only and are not produce for sale—it is essentially sustenance agriculture. The protected land is also used for kitchen gardening by the rural households and no products is marketed. Therefore, there was no data on yield improvement since the land is non-arable and the impact is yield versus no-yield and not increased yield. Another important point to note is that these are not irrigation structures, FPW are primarily flood protection structures. The questions asked to gauge the impact and benefits of the FPW, and the responses noted during the FGDs are provided in Annex H.

(Plantation and kitchen gardening in protected Land, UC Nasirabad)
Source: FGD with VO Meer e Bazar & FGD with LSO Mirani on 27th March 2022.
PoC Shah Jahan Manager VO 03213621349 & PoC Muhammad Halif CRP LSP 03218095944

The land is being developed after FPW CPI implementation; the community has started building houses in the area protected. They are resulting in increased traditional cultural practices in the beneficiary villages. HHs have grown fruit orchards near their houses; date plants are mostly visible. Even though the yield produced in these orchids is grown for personal consumption, a significant monetary value is attached to it since the HHs do not have to spend out of their pocket to obtain fruits and vegetables.

Land value after this assessment has increased, i.e., on average, by 200,000PKR per acre- in UC Nasirabad of District Kech, the price per acre of land was 100,000PKR before the implementation of FPW, which has now increased to 300,000PKR.

The assessment team carried out a simple economic impact calculation assuming that the land value in FPW (related sub-types of CPI) appreciated half (100,000PKR and not 200,000PKR) of that reported during the present assessment survey and that, on average, each beneficiary HH in the coverage area possessed 0.1 acres of land-extremely conservative estimates.

Figure 37 FPW in UC Nasirabad of District Kech

Figure 38 UC Nazirabad in District Kech

Table 10 Economic Impact of FPW

Economic Impact of FPW		
1	Number of FPW and related schemes	19
2	Assumed HH Beneficiaries/ Schemes	30
3	Total Beneficiaries HH	570
4	Increase in Cost per acre in Beneficiary areas (PKR/Acre)	100,000
5	Total BRACE HH Number	300,000
6	Current Coverage of FPW and Related Schemes (HH %)	0.19
7	Potential Coverage overall (HH%)	1
8	Assumed Average/ HH, Acres	0.10
9	Potential Total Additional Land Value Created for HH (PKR)	300,000,000
10	Additional Value Created at Current Coverage (PKR)	5,700,000

FPW and related flood protection CPI appear to have increased land-values of beneficiary HH (0.19 percent coverage) by 5.7milPKR, which implies that even a 1 (one) percent total coverage of such schemes can potentially contribute to an increase in 300milPKR in terms of HH land value!

7.2.3. Environmental Impact of FPW

An increase in plantation and sustainable sustenance agriculture are the main environmental impacts of FPW CPI. Land previously under threat from floods is being developed for sustenance agriculture. The HHs have also started to grow fruit orchards in the area, which is now protected from FPW built by BRACE funding. The FPW also prevents erosion and degradation of land.

7.3 Community Perception and Satisfaction in delivery of FPW

The BRACE Programme Community Perception and Satisfaction in delivery of FPW show that during the HH survey, respondents were asked about the total area protected from potential floods after implementing the CPI scheme. The responses are shown in Figure 39.

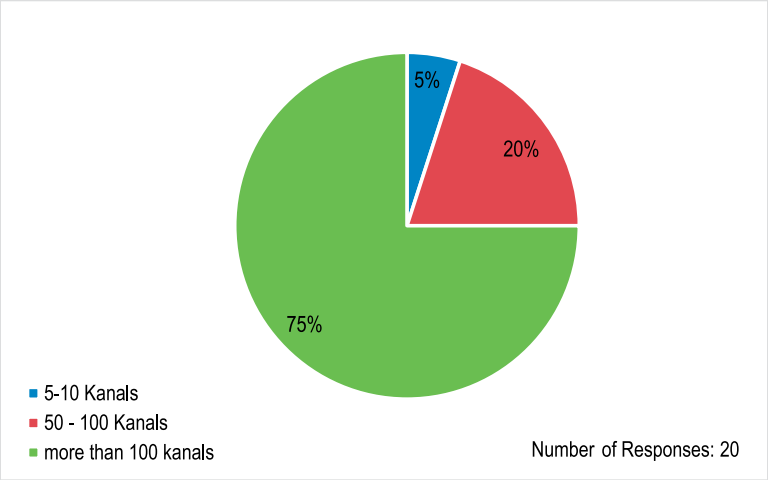


Figure 39 Land Protected by Flood Protection Wall

Apart from creating a sense of security in the community, 75 (seventy-five) percent said that FPW schemes had protected the community's physical assets from floods. Enabling them to start possible agricultural practices on new land and develop existing land, which was underdeveloped and underutilised due to potential flood-related disasters. Kitchen gardening for domestic purposes has also increased. The benefits of FPW are depicted in Figure 40.

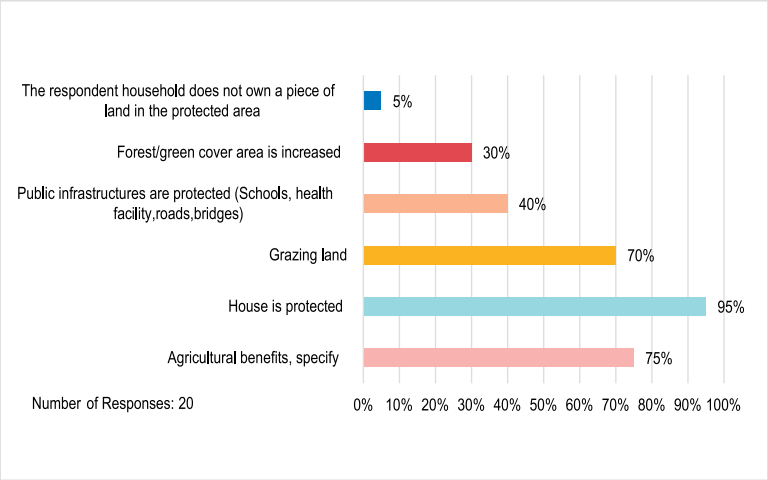


Figure 40 Benefits of Flood Protection Walls

Initially, the questionnaire discussed yield improvement, but researchers have not found any cereal crops in the field after the field visits. Hence, the HHs response to agricultural benefits (Figure 40) referred to the benefits yielded through kitchen gardening for the HH's consumption.

Pre FPW, HHs were threatened by floods, which implied many people were restricted to re-build houses—and did not invest heavily in improving them. However, a respondent named Abdur Rehman said that he started building his house after FPW, and now due to the security of the land from flooding, he was taking steps to have his drinking water supply.

As mentioned before, land value has also increased in the beneficiary villages. For example, in UC Nasirabad of district Kech per acre, land value has increased from 100,000PKR to 300,000PKR. FPW schemes have protected land of more than a hundred Kanals in UC Nodiz and more than thirty Kanals in UC Nasirabad of district Kech. Land value appreciation indicates a positive community perception of the FPW CPI intervention under the BRACE Programme.

7.3.1 Gender inclusion in the delivery of FPW

Women in beneficiary HH have reported an increased sense of security post rainfall after implementing the FPW. Their houses and land used for kitchen gardening and livestock is now secure from flood water. Women can now safely invest time, energy, and efforts in developing existing and new land, which before the implementation of FPW was not considered a viable choice as the flood water in the past has destroyed their lands, damaged houses, and harmed livestock. It is important to note that the construction of FPWs has enhanced mobility for women and increased their access to the utilisation of available land, contributing to increased participation in activities related to improved livelihoods and social mobilisation..

8- Outcome Assessment of Rehabilitation of Government Services (RGS)

This chapter assimilates findings for assessing outcomes from the implemented RGS schemes. The assessment focuses on relevance, immediate impact, and community perception of the outcomes associated with RGS.

Around 16 (sixteen) percent of the schemes completed under the CPI component of the BRACE Programme are DSS. All RGS implemented involve repairing and renovating schools (high schools). In addition, activities related to RGS include the construction of classrooms and veranda, electrification, construction of boundary walls, rehabilitation of drinking water supply, and provision of WASH facilities such as the construction of toilets and surface tanks. Table 11 shows key interventions of RGS in the district as an example of the typical RGS sub-interventions.

Table 11 Key Interventions of Rehabilitation of Government Services, District Kech

Key Interventions of Rehabilitation of Government Services: District Kech	
Type of Intervention	Intervention in number of Schools
Construction of Classroom and Verandah	2
Electrification	3
Boundary Wall	1
Rehab of drinking water	2
Provision of WASH facilities	1
Construction of Toilets	1
Construction of Surface Tank	1

Based on purposive sampling, of the forty (40) CPI schemes selected across the three (3) sampled districts of Kech, Pishin, and Khuzdar, four CPI schemes were selected from the Rehabilitation of Government Services category. The total number of projects under the RGS category in the BRACE Programme is 16 (sixteen), and 25 (twenty-five) percent were covered in our survey. Out of the sixteen projects, fifteen were in the Kech district. Hence the four projects for the survey were also selected in the Kech district. These four projects were in four different VOs, one of them in Nodiz UC, and the other three were located in Solband UC. The FGDs were conducted in both UCs, and for these four projects, forty households were surveyed. Additionally, the local engineers and staff of NRSP were also interviewed, and KIIs were conducted with the Government officials in the Kech district as well.

8.1 Relevance of RGS

Relatively fewer HHs were involved in identifying the RGS compared to the other CPI interventions in the BRACE Programme. However, this needs a targeted assessment in the post Programme evaluation as the agreed sample was restricted. 55 (fifty-five) percent of households participated in the need identification exercises for rehabilitation of government services-Figure 41.

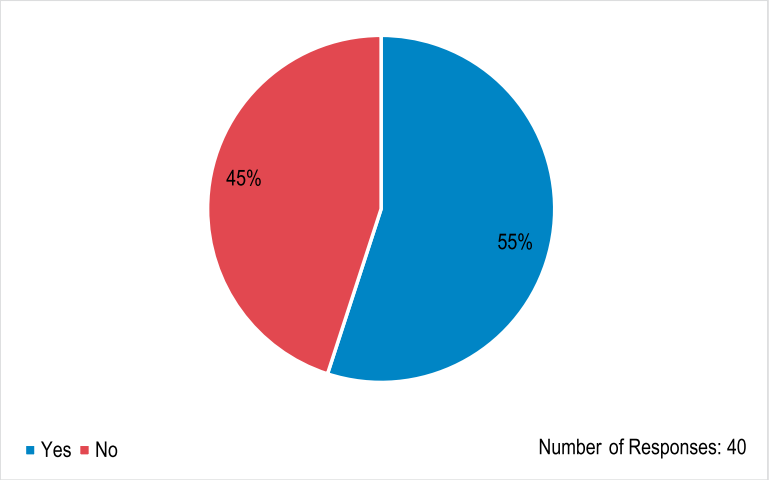


Figure 41 Involvement of Households in Identification or Rehabilitation Projects

HH opined that more relevant RGS could have been undertaken under the BRACE Programme. However, this needs a targeted assessment in the post Programme evaluation as the agreed purposive sample cannot deal with the possible multiple biases.

88 (eighty-eight) percent of the respondents mentioned that schemes implemented under BRACE Programme are partially relevant to the needs identified by.

Figure 42 shows the relative extent to which respondents have perceived that implemented schemes (DWSS, DSS, FPW, and DSS) have fulfilled the identified/desired need of the community. It appears that RGS and DSS schemes were not perceived to be relevant to their needs by the HH.

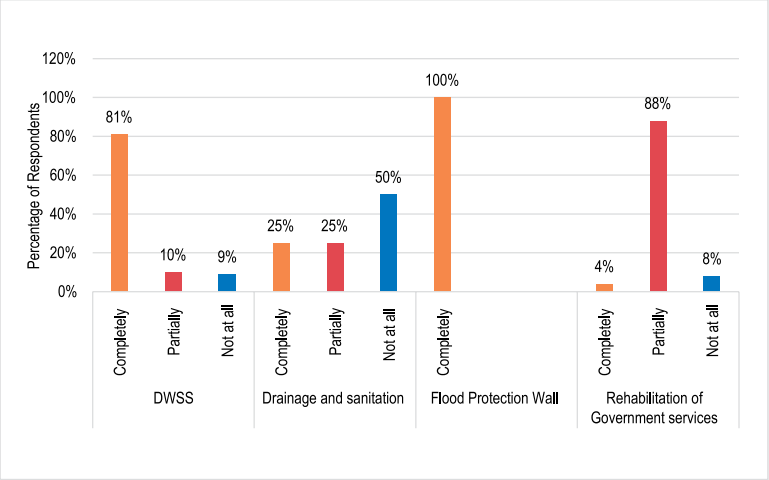


Figure 42 Relevance of CPIs to the Actual Needs

Possible contexts for these findings are discussed in detail in the following section on community perception and satisfaction.

8.2 Immediate Impact of RGS

8.2.1 Social Impact of RGS

Despite the HH perceiving lower relevance of RGS interventions, they have contributed to increased enrolment in girls' schools and improved health and hygiene therein.

Figure 43 Communal Toilets in Scools

There is an increased enrolment of girls due to better community cohesion and active women CIs. With the construction of a boundary wall, the school is now secure from outside interventions allowing a relatively larger number of students, particularly female students, to enroll as it will also adhere to the socio-cultural norms of the locality. In addition, female students and their mother's sense of security has increased since it was difficult for them to attend school without a dedicated toilet. In UC Nodiz, District Kech, the enrolment of girls in the school has increased, and the school now has two shifts, morning for the boys and evening for girls.

The presence of proper buildings and boundary walls for students had furthered the sense of security, as, before the intervention, some schools were operated in temporary shelters. With only one female teacher catering to the educational requirements of 76 (seventy-six) girls who were enrolled in the Kalag Sammi school (Figure 44) are ecstatic after the construction of the water tank and having access to clean drinking water.

Figure 44
Construction of Water Tank in School Building in UC Sammi, Kech

During the implementation of RGS, women's participation in activities such as the construction of the boundary wall, the construction of new classrooms, and the procurement of construction materials has boosted their confidence in implementing community projects in the future.

Improved health and hygiene conditions are reported after the availability of clean drinking water, construction of toilets, provision of surface water supply tanks, and other RGS interventions in school.

8.2.2 Economic Impact of RGS

The primary economic impacts are a potential increase in women's participation in the workforce and reduced health expenditures. However, these need a separate evaluation for quantification. After the implementation of RGS, the economic impact reported varies with the type of intervention. For example, the increased enrolment of girls at school due to the construction of toilets will lead to a more socially responsive and mobilised community, eventually increasing women's participation in economic activities and decision-making. The construction of toilets has also improved the health and hygiene conditions of the students and decreased health expenditure.

8.2.3 Environmental Impact of RGS

ODFC environments are the primary environmental benefits reported because of the construction of toilets. The construction of toilets has improved the locality's overall health and hygiene conditions. The community has also benefited from this scheme as a clean and healthy environment is improved by properly managing

fecal waste through the construction of toilets. Prevention is better than cure. Hence prevention of contagious diseases and outbursts associated with poor sewer management and no-toilets near schools is also one of the environmental impacts of this scheme.

Based on the data available to the assessment team, the implementing partners have faltered in not promoting a massive tree plantation in the context of RGS interventions which could have had multiple environmental and educational benefits.

8.3 Community Perception and Satisfaction in delivery of RGS

When asked specifically about schools, all HH respondents unanimously acknowledged that they benefitted from the RGS intervention under the BRACE Programme. The RGS schemes were implemented in order of priority as agreed in the VDPs/UCDPs of their respective CIs, barring a few cases where members of the community and HHs have indicated otherwise and specified the need for more relevant schemes. This shows up when gauging the HHs; the RGS scored low-88 (eighty-eight) percent of the respondents were only partially satisfied by these interventions (Figure46).

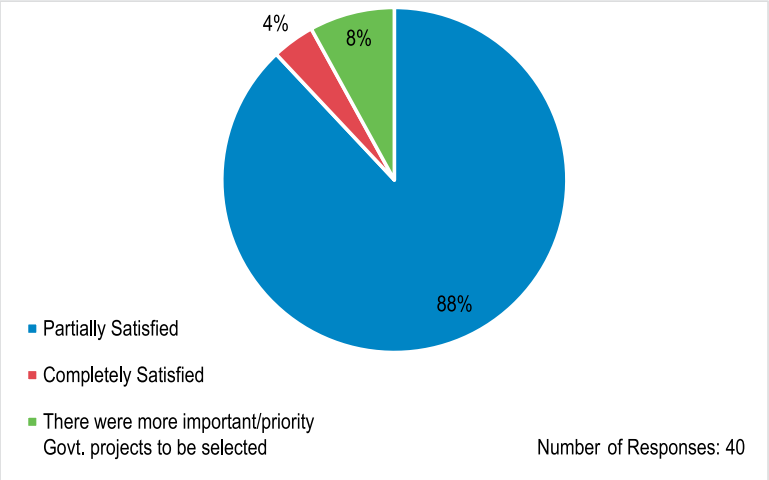


Figure 45 Satisfaction with Rehabilitation Projects

This corresponds to the earlier finding that the implemented RGS schemes were also deemed low relevance by the responding HH. Why is the satisfaction and perception of the relevance of RGS relatively low? The assessment team discussed and triangulated this across the multiple tiers of information gathered and concluded that this required a targeted review beyond the scope of this present assessment. Biased responses and the resulting analysis points to multiple possibilities, some of which are mentioned here.

- The fewer schemes and similar interventions require a targeted and wider sampling of this segment of interventions in a follow-on study.
- The similar menu offered to all communities/HH implied limited choices under the BRACE Programme, and possibly a wider menu of needs was identified in the VDPs/UCDPs-or even worse, the VDPs/UCDPs choices were limited by the IPs limiting the same during social mobilisation.
- RGS interventions being more remote and communal, in addition to serving the mobilised women CIs' perceived need-educating girls-may have resulted in these contradictory perceptions.

It is important to review this RGS CPI segment in further detail, possibly as part of the post Programme evaluation.

9- Quantification of Outcomes for Direct and Indirect Benefits

This section includes a quantified economic and financial analysis of selected DWSS schemes to ascertain their financial viability. The DWSS schemes are the most prevalent CPI interventions under the BRACE Programme. For DSS and FPW interventions, this assessment has already mentioned the broad direct economic impacts and their potential. Although immediate revenue streams accrue from the provision of water, which is treated as both a public and private good and the accrued indirect benefits are also defined, such CPI interventions are often subjected to a detailed rate of return analysis. A rigorous financial analysis for DWSS also helps ascertain the degree to which they will be viewed as a commercially viable investment by the HH/communities themselves as they consider sustainability.

The Present Net Value (NPV) and IRR are calculated using direct, and indirect benefit streams assessed post the present evaluation.

9.1 Direct and Indirect Benefits Matrix

Table 12 Direct and Indirect Benefits of this Programme

Schemes	Benefits		Immediate Impact		
	Direct benefits	Indirect benefits	Social	Economic	Environmental
	Reduced effort to fetch water from faraway areas - Resulting in time saved to perform other socio-economic activities, mainly for women and children.		☑	☑	
	Adequate provision of water with improved water quality has improved health and hygiene.		☑	☑	☑
	Increased women's participation in economic activities such as embroidery and handicrafts	Reduced HH works increased their income as women participated in economic activities like seamstresses, agriculture, marketing, and paid domestic work.	☑	☑	☑
	The availability of clean water has improved health and hygiene	Improved Health and Hygiene resulted in reduced prevalence of diseases, due to which a decrease in monthly health and hygiene expenditures was noted.		☑	☑

Schemes	Benefits		Immediate Impact		
	Direct benefits	Indirect benefits	Social	Economic	Environmental
	Women participate in decision-making and have their own CIs.	Increased women's representation in social mobilisation and economic activities	☑	☑	
	Water provided under this scheme is being utilised for watering kitchen gardens and growing plants	Increase in the green cover of the area due to an increase in the number of plants, vegetation, and afforestation		☑	☑
		Small kitchen gardens and fruits orchards grown for domestic use contribute to food security and nutrition		☑	☑
		Saving of electricity units in solarised DWSS		☑	
		Saving on fuel cost, in case of gravity flow DWSS		☑	
	Enhanced social cohesion and sense of security among HHs. FPW provided mitigation measures and has fully saved physical assets, including land and houses.		☑	☑	
	Shared Public assets secured against floods allow the community to invest in further development.			☑	☑
	Community infrastructure, including schools, health centers, and worship places, is relatively protected from potential floods		☑	☑	☑
		Increase in plantation and sustainable sustenance agriculture, e.g., plantation of fruit orchards and kitchen gardening.			☑
	Increased Value of Land with lessened risk to HH investments in housing and an increase in sustenance agriculture.	The land is being developed; the community has started building houses in the protected area.		☑	
		The confidence of the community has increased to cultivate the previously underutilised land due to the prevention of land degradation and erosion.	☑		

Schemes	Benefits		Immediate Impact		
	Direct benefits	Indirect benefits	Social	Economic	Environmental
	Social Uplift of the beneficiary HHs through cleaner environments - Improved health and hygiene, the appearance of the community, mobility, and heightened sense of self-worth.		☑	☑	
	The physical environment is clean and healthy, saving women time from taking care of sick members of families.	Significant Decrease in health expenditures		☑	☑
	The settlement/ village is clean for children to play outside in a hygienic environment		☑		
	Land and Water pollution is reduced with a decrease in groundwater contamination.	Reduced groundwater contamination with sewage resulted in a decrease in waterborne diseases.			☑
	Clean drinking water available at school	Improved health and hygiene conditions.	☑		
	Repair and Renovation of schools - Boundary wall has created a sense of security, particularly for girls	The increased enrolment rate of girls in school.	☑	☑	
	Clean drinking water available at school	Improved health and hygiene conditions.	☑	☑	
	Repair and Renovation of schools - Boundary wall has created a sense of security, particularly for girls	The increased enrolment rate of girls in school.	☑		

9.2 Economic Analysis of CPIs implemented under BRACE

9.2.1 Economic Analysis of DWSS

As agreed, a detailed economic analysis for this assessment is conducted based on one (1) Gravity Flow DWSS, and three (3) Solarised DWSS. Table 13 shows the DWSS the experts' teams visited during this assessment.

Table 13 Gravity Flow and Solarised DWSS visited by experts' team

S. No.	District	Gravity Flow CPI Visited	Solarised CPI Visited
1.	Kech	0	4
2.	Khuzdar	1	7
3.	Pishin	2	4

9.2.1.1 Gravity Flow DWSS

The detailed economic analysis for this DWSS in Killi Haji Abdullah Jan is presented in Tables (14, 15, and 16).

Table 14 Economic Analysis for DWSS in Killi Haji Abduallah Jan

Project Location	
Name of Village	Killi Haji Abdullah Jan
Union Council	Yaro 2
District	Pishin
Project Description	
Completion Period	1 Year
Project Beneficiaries	
Total Beneficiaries House Holds	314
Total Population	1,693
Financial Description	
Total Cost	2,014,493PKR
EU Share	1,772,756PKR
Community Share	241,737PKR

Project benefits:

Table 15 Economic Analysis for DWSS in Killi Haji Abduallah Jan

Annual Costs of the project		
Operation & Maintenance Cost	Rs/Year	41,497
A monthly fee is collected to pay the caretaker		120,000
Total Annual Costs	**Rs/Year**	**161,497**
Benefits:		
Number of Families (Households- HH)	Nos.	314
Expenditure on water gallons before the project	2500PKR per HH	785,000
Health expenditure saved (total households per annum)		180,000
Total Additional Net Benefit		**945,000**

Based on the above economic parameters and the project's economic worth, Table 16 shows the IRR and NPV of the project.

Table 16 IRR and NPV of Gravity Flow DWSS in Killi Haji Abdullah Jan

Measures of Project Worth	
NPV (Rs.)	2,141,541
B/C Ratio	1.73
IRR (%)	21.4

9.2.1.2 Solarised DWSS District Khuzdar

The detailed economic analysis for this solarised DWSS in Sangar is presented in the following tables (17, 18,19, and 20).

Table 17 Economic Analysis of Solarised DWSS in Sangar

Project Location	
Name of Village	Sangar
Union Council	Dogun
District	Khuzdar

Project Description	
Completion Period	6 months

Project Beneficiaries	
Total Beneficiaries House Holds	35
Total Population	121
Total cost of construction	1,703,965PKR
EU Share	1,499,620PKR
Community Share	204,345PKR

Table 18 Economic Analysis of Solarised DWSS in Sangar

Annual electricity saving	
Total capacity of system	330*12= 3960W
Average generation per day of 1kW system	4kWh
Total generation of system installed	= 3960*4 =16kWh (approx.)
Total peak generation hours in a day	6 (avg)
Per hour production of system	16/6= 2.6 kWh
System operating hours	2 hour per day
Daily production of system	2*2.6= 5.2kWh
Annual production	5.2*365= 1898kWh
QESCO tariff for HH	PKR 13 per kWh
Annual savings from system	1898 * 13= PKR 24,647

Table 19 Economic Analysis of Solarised DWSS in Sangar

Annual Costs of project		
First time O&M collection		51,119
Operation & Maintenance Cost	Rs/Year	51,119
Total Annual Costs	**Rs/Year**	**102,238**
Benefits:		
No. of Families (Households- HH)	Nos.	35
Saving in health expenditure	2500PKR per HH per month	1,050,000
Embroidery dress sale in market	5 dresses sold in last year at 40,000 per dress	200,000
Savings on electricity units	1898 units at 13PKR per unit	**24647**
Total Additional Net Benefit:		**1,274,647**

Based on the above economic parameters and the project's economic worth, Table 19 shows the IRR and NPV of the project.

Table 20 IRR and NPV of Solarised DWSS in Sangar

Measures of Project Worth	
NPV	4,420,831
B/C Ratio	2.93
IRR (%)	48.4

9.2.1.3 Solarised DWSS District Kech

The detailed economic analysis for this DWSS in Meer Nizar Mohd Bazar Ward is presented in the following tables (21, 22, 23, and 24).

Table 21 Economic Analysis of Solarised DWSS in Meer Nizar Mohd Bazar Ward

Project Location	
Name Of Village	Meer Nizar Mohd Bazar Ward
Union Council	Solband
District	Kech
Project Description	
Completion Period	3 months
Project Beneficiaries	
Total Beneficiaries House Holds	132
Total cost of construction	1,631,000PKR
EU Share	1,569,000PKR
Community Share	62,000PKR

Table 22 Economic Analysis of Solarised DWSS in Meer Nizar Mohd Bazar Ward

Annual Costs of project		
Operation & Maintenance Cost	PKR /Year	48,930
Monthly fee of 71 HHs at 200PKR per HH per month	PKR /Year	172,800
Total Annual Costs	**Rs/Year**	**221,730**
Benefits:		
No. of Families (Households- HH)	Nos.	132
Saving in health expenditure	1000PKR per HH per month of 80 HHs	960,000
Embroidery dress sale in market	3 dresses sold in last year at 30,000 per dress	60,000
Savings on electricity units	14,344 units at 13PKR per unit	**186,472**
Total Additional Net Benefit:		**1,206,472**

Table 23 Economic Analysis of Solarised DWSS in Meer Nizar Mohd Bazar Ward

Annual electricity saving	
Total capacity of system	330*60= 19800W
Average generation per day of 1kW system	4kWh
Total generation of system installed	19.80*4 =79kWh (approx.)
Total peak generation hours in a day	6 (avg)
Per hour production of system	79/6= 13.1 kWh
System operating hours	3 hour per day
Daily production of system	3*13.1 = 39.3 kWh
Annual production	39.3 *365= 14344kWh
QESCO tariff for HH	PKR 13 per kWh
Annual savings from system	14344* 13= PKR 186,472

Based on the above economic parameters and the project's economic worth, the following table shows the IRR and NPV of the project.

Table 24 IRR and NPV of Solarised DWSS in Meer Nizar Mohd Bazar Ward

Measures of Project Worth	
NPV	3,451,654
B/C Ratio	2.1
IRR (%)	40.4

9.2.1.4 Solarised DWSS District Pishin

The detailed economic analysis for Solarised DWSS in Qilla Askan Khan is presented in the following tables (25, 26, 27, and 28).

Table 25 Economic Analysis of Solarised DWSS in Qilla Askan Khan

Project Location	
Union Council	Qilla Askan Khan
District	Pishin
Project Beneficiaries	
Total Beneficiaries House Holds	165
Total cost of construction	1,848,396PKR
EU Share	1,448,396PKR
Community Share	400,000PKR

Table 26 Economic Analysis of Solarised DWSS in Qilla Askan Khan

Annual Costs of project		
Operation & Maintenance Cost	PKR /Year	55,452
Total Annual Costs	**PKR/Year**	**221,730**
Benefits		
No. of Families (Households- HH)	Nos.	165
Saving in health expenditure	4700PKR per HH per annum	792,000
Savings on electricity units	16206 units saved per annum at 13PKR per unit	**210,678**
Total Additional Net Benefit		**1,002,678**

Table 27 Economic Analysis of Solarised DWSS in Qilla Askan Khan

Annual electricity saving	
Total capacity of system	330*68= 22440 W or 22.4 kW
Average generation per day of a 1kW system	4kWh
Total generation of system installed	22.4*4 =89 kWh (approx.)
Total peak generation hours in a day	6 (average)
Per hour production of system	89/6= 14.8 kWh
System operating hours	3 hour per day
Daily production of system	3*14.8= 44.4 kWh
Annual production	44.4*365= 16,206kWh
QESCO tariff for HH	PKR 13 per kWh
Annual savings from system	16206* 13= PKR 210,678

Based on the above economic parameters and the project's economic worth, the following table shows the IRR and NPV of the project.

Table 28 IRR and NPV of Solarised DWSS in Qilla Askan Khan

Measures of Project Worth	
NPV	3,112,358
B/C Ratio	2.44
IRR (%)	32.4

9.3 Sensitivity Analysis for all DWSS

The BRACE Programme Sensitivity Analysis for all DWSS of +/-20% on total cost estimates the impact of all thirty-two (32) DWSS. The results depicted that the B/C ratio has remained greater than one (1) and the NPV and IRR remained positive for the selected schemes. It has indicated that with 20 (twenty) percent increase or decrease in the total, there will be minimal impact on the NPV and IRR of the CPI schemes implemented, hence ensuring the economic viability and sustainability of the projects/ interventions. Table 29 presents the sensitivity analysis for the selected CPIs, based on estimating the impact for all thirty-two schemes.

Table 29 Sensitivity Analysis for Selected DWSS

Type of DWSS	DWSS Killi Haji Abdullah Jan Pishin	Solarised DWSS Sangar Khuzdar	Solarised DWSS Soband Kech	Solarised DWSS KillaAskan Khan Pishin
NPV	2,141,541	4,420,831	3,451,654	3,112,358
B/C Ratio	1.73	2.93	2.19	2.44
IRR	21.4	48.4	40.4	32.4
NPV at +20% cost	1,738,643	4,080,038	3,125,454	2,742,679
B/C ratio at +20% cost	1.52	2.55	1.97	2.08
IRR at +20% cost	14.9	38	31.2	24.4
NPV at -20% cost	2,544,440	4,761,624	3,777,854	3,482,038
B/C ratio at -20% Cost	2	3.44	2.47	2.94
IRR at -20% Cost	30.8	63.9	54.1	44.2

9.4 Potential Collective NPVs Across DWSS Implemented Through BRACE

The total cost of thirty-two (32) DWSS selected for the study is 44,462,244PKR[10]. The net present value of one project in each district was calculated based on the NPV for the rest of the projects been estimated/calculated, and the sheet has been added to the report as Annex J. The net present value estimated for all thirty-two DWSS is 96,659,743PKR or nearly 100milPKR for an investment of roughly 45milPKR. This NPV accounts for the electricity savings as these are part of the benefit stream.

Assuming that the average NPV calculated is applicable across the 147 DWSS CPI already implemented, we can posit that this investment (205,005,584.4PKR) has generated an NPV of 444,030,694PKR or nearly 500milPKR.

[10] As per the excel sheet of CPIs shared by RSPN

10 - Perception of Government and Community Institutions

10.1 Coordinating with The Government - The JDDC Mechanism

JDDC meetings are held quarterly in each BRACE beneficiary district. In the JDDC, the IPs, LSO representatives, and line departments present progress on each component of the BRACE Programme, including the CPI component and relevant activities. JDDC is attended by district-level line departments, including Public Health Engineering Department, Education Department, Health Department, Livestock Department, and Local Government Department. IPs also take approval from concerned line departments for each CPI to be implemented to avoid duplication of effort and resources.

10.2 Perceptions and Discussions - Typical Issues For JDDC

During the assessment exercise, the team participated in two JDDC meetings in districts Kech and Khuzdar. In addition, a series of meetings were held with relevant line departments to assess their perception of the BRACE Programme. A list of officials met during the experts' field assessments is added as Annex M.

Figure 46 JDDC Meeting in District Khuzdar

Coordinating with the Government – Government departments in both districts were appraised about activities under BRACE Programme. The members praised the efforts of BRACE and its impact on rural communities. Process of needs identification and assessment at the grassroots level were also appreciated. According to government officials, cost-effectiveness and timely completion of CPIs make them impactful and different from the government's infrastructure projects. In addition, the rehabilitation of government services and schools has resulted in increased enrolment of girls and an overall improved school standard.

Government departments also appreciated local development plans prepared by CIs to reflect local needs and priorities. After VDPs and UCDPs, a District Development Plan (DDP) has also been prepared in Kech by the LSO network. Forty agriculture projects were funded by DDP and shared with the agriculture officer. Projects were funded through the SDG fund of the Balochistan government, and a total of 30milPKR was allocated. CIs mentioned sharing their respective VDPs and UCDPs with relevant line departments. Some of these projects were from the VDPs and UCDPs financed by the government.

Government officials also mentioned that the core reason for BRACE Programme's success is community participation and involvement through CIs during the project cycle. Similarly, unless local bodies are fostered and involved to contribute to future O&M of schemes, including fulfilling recurring costs, there is little chance of successful delivery of government-funded infrastructure projects. The absence of local government bodies is a missing link in Balochistan. Therefore, all the social mobilisation and capacity building of communities under BRACE will be more impactful if local bodies are functional and representatives are selected from the grass-root level, with the presence of CIs and the help of local level VDPs and UCDPs. These selected representatives may contribute better toward developing the most deserving rural communities in the district. The Government looked upon the CIs seeded and developed under the BRACE Programme as the nursery for local government political structures once they came about.

LSO's Voicing Convers on Technical Issues – Poverty scorecard and its indicators were questioned by LSO representatives and government officials during the JDDC meeting in Khuzdar. It was argued that some indicators have no direct relevance to poverty and community growth as the scorecard gives more points to households, which changes their overall poverty score. As a result, HH gets excluded from the list of ultra-poor, leading to the exclusion despite deserving income-generating grants under BRACE Programme. CIs are constantly aggregating and conveying their technical observations to government institutions.

Overall Perception of Community Institutions – The assessment noted a high level of community satisfaction with the implementation process and outcomes of the CPI component of the BRACE Programme. Overall, the process of CPI implementation has enhanced the empowerment of HHs, particularly women (refer to Figure 47).

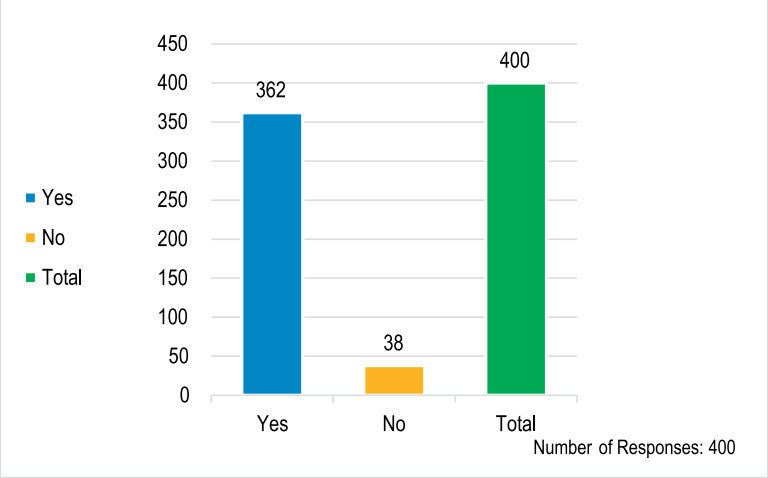


Figure 47 Empowerment of Households

Community HHs were asked to rate different aspects of CPI implementation on a scale of one to ten, with ten being the highest. The responses received are shown in Figure 48.

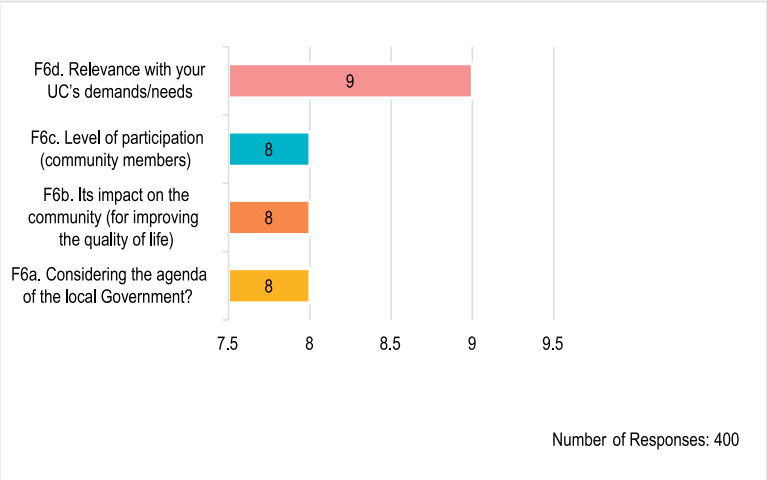


Figure 48 Rating of Key Indicators

Most of the CIs agree that BRACE CPIs have improved the overall living conditions of the rural community and are well-aligned with the needs identified by the community.

96 (ninety-six) percent of the respondents during the survey also indicated that participating in different phases of CPI implementation has eventually empowered CIs in beneficiary villages through training, upskilling, and decision-making. That increased community awareness, knowledge, and skill set about different stages of project implementation. By participating in the planning and implementation process, community HHs are trained to assist in implementing similar projects.

11 - Conclusions and Recommendations

The CPI component of the BRACE Programme has responded to the priority needs of most disadvantaged HHs. BRACE Programme has promoted an organic Programme through social mobilisation approach with a focus on institutional development at the grass-root level, which is most needed and desirable for inclusive development.

Figure 49 Remote Beneficiary Village of DWSS in UC Dogun, Khuzdar

Participation of CIs in the decision-making process at the grass-root level has empowered marginalised communities/HH. This has built the capacity of local people to participate in planning, execution, monitoring, and O&M of joint projects of communities in the future. For example, Solarised DWSS, funded by BRACE Programme has helped the community to lift groundwater for drinking and other domestic purposes. However, despite having these solar systems, most beneficiary villages do not have electricity access. With small investment ideally by the HHs, using VO saving as a loan, or linking VOs with microfinance banks could establish their mini-grid, achieving SDG 7 "access to reliable electricity."

Solar technology is comparatively new for beneficiary villages. The inverters of solar units were not properly placed inside a casing and were just put above a stone under the solar panels. The boreholes were also not properly protected. Proper O&M training is required as during FGDs and site visits, no trained operators were present.

IPs should agree with CIs on standardised CPI designs providing options for adaptation to a particular environment and topography. For example, in most of the DWSS in Kech and Khuzdar, the project's design included a common water collection point. Still, the community on its own has extended pipelines as multiple communal water taps in the villages. In the long term, this will affect water's sustainability and over-extraction.

In another scheme in Vorya, Pishin, a massive flood in Rudh Malazai has removed a large segment of the supply pipeline, disconnecting water supply to the village from a Karez. It turned a game-changing water supply scheme into a failure for several months. CIs cannot rehabilitate the damaged water supply as CPI can only be rehabilitated once the district government has sufficient funds. In the case of gravity flow DWSS, protection of the source is very important, and a missing link was found during the field visit. The picture depicts an unprotected source in UC Balina Wahir of district Khuzdar.

Figure 50 Extension in Pipes by the Community

The sustainability of electricity-based DWSS is also a question mark due to Balochistan's poor electricity situation. Operation of DWSS on electricity is not feasible in such situations. Beneficiaries of the electrified scheme during FGDs also complained about the situation and asked for financial and technical support to install solar units on the left groundwater. A proper O&M mechanism should ensure the sustainability of CPIs. Especially in the case of FPW, no annual maintenance fee is being collected by the VO, which will affect sustainability.

Figure 51 Unprotected Water Source in District Khuzdar

DWSS, where governments' schemes have been rehabilitated, has sustainability issues as the government does not allocate O&M funds for these projects. Flood protection structures have provided mitigation measures to protect village settlements, including houses, land, and public and private physical assets. However, communities reported a strong need for technical and financial support to improve flood mitigation structures in settlements and villages. Drainage and Sanitation CPIs have benefited a limited number of households. However, a majority reported that the D&S project is most needed to benefit several households in the vicinity.

This study has only focused on assessing outcomes for immediate impact and relevance/ responsiveness to community needs. As identified earlier, the interventions implemented as part of the CPI component of the BRACE Programme need to focus more on the sustainability of the schemes, particularly for O&M, capacity building, local community training, and the use of viable technology for the implementation of schemes. There is also a need for proper implementation of post-delivery mechanisms, for example introducing an annual maintenance fee to ensure enhanced efficiency and sustainability of the schemes.

There is also a need for a more detailed study on the overall components of the BRACE Programme, as the standalone impact of CPI schemes will only be able to provide a true picture of the Programmes impact on the life and livelihoods of the people.

IPs and CIs need to be weaned off a perpetual grant-seeking model. There are two parts to this, one for IPs and CIs to develop sustainable models of collaboration that allow for post Programme operations. The second part focuses on deeper post Programme social mobilisation to develop the social contract around the commercial operation of assets like DWSS and other energy-related schemes. In areas where

water user fees had been institutionalised, the CIs were often challenged in collecting the fees from even a quarter of the households. A creative and sustainable social mobilisation discourse amongst the CIs' activists and the IPs can go a long way in deepening the realisation amongst the beneficiary HH to pay the fees. A model for sustaining this needs to be developed before the end of the BRACE Programme.

In the future, programs such as BRACE should consider the pros and cons of emphasizing geographical spread as resource limitations result in a very thin spread of interventions. This lessens the impact, as, despite high relevance, the needs are not addressed adequately. Providing Education and commercial community-driven CPI (or RGS) also require enhancement to cater to improved health, increased availability of time, and opening of avenues for women's income opportunities. Adequacy of provision is closely linked to relevance, impact, and sustainability. The common excuse from implementing partners and governments is the need for equitable distribution of resources and maintaining regional harmony within and across districts. Increasing resources and not equitable allocations are the answer; otherwise, this is a poor fiscal or simply allocational efficiency. This inevitably threatens the sustainability.

It is important to review the RGS CPI segment in further detail, possibly as part of the post Programme evaluation. The RGS schemes were implemented in order of priority as agreed in the VDPs/UCDPs of their respective CIs, barring a few cases where members of the community and HHs have indicated otherwise and specified the need for more relevant schemes. When gauging the satisfaction of the HHs, the RGS scored low. This corresponds to the earlier finding that the implemented RGS schemes were also deemed low relevance by the responding HH. Why is the satisfaction and perception of the relevance of RGS relatively low? The assessment team discussed and triangulated this across the multiple tiers of information gathered and concluded that this required a targeted review beyond the scope of this present assessment. Biased responses and the resulting analysis points to multiple possibilities, some of which are mentioned here.

- The fewer schemes and similar interventions require a targeted and wider sampling of this segment of interventions in a follow-on study.
- The similar menu offered to all communities/HH implied limited choices under the BRACE Programme, and possibly a wider menu of needs was identified in the VDPs/UCDPs-or even worse, the VDPs/UCDPs choices were limited by the IPs limiting the same during social mobilisation.
- RGS interventions being more remote and communal, in addition to serving the mobilised women CIs perceived need-educating girls-may have resulted in these contradictory perceptions.

IPs' capacity for engineering and environmental safeguards assessment needs improvement-innovation will be key in developing this as the current model of multi-sector 'specialisation' and provision by a single IP is not workable-neither efficient nor effective. It is not possible that the current model followed by IPs (not just the BRACE Programme) can net effective and efficient engineering and safeguards and other important technical decisions. A better model is for the Programme to build central capacity at the network level, e.g., RSPN could be the first step. This central capacity at RSPN can later be spun off as a for-profit entity to provide specific technical assistance on the community-driven local infrastructure provision.

Effective coordination between the government institutions and the CIs needs to be sustained to enable a better and more accountable local government architecture to develop in Balochistan. For example, after VDPs and UCDPs, a District Development Plan (DDP) has also been prepared in Kech by the LSO network, and forty agriculture projects were funded by DDP and shared with the agriculture officer. Projects were funded through the SDG fund of the Balochistan government, and a total of 30milPKR was allocated.

12 - Annexure

Annex A: Context and Background

Context and Background

This section includes an overview of the context within which the CPI component of the BRACE Programme is implemented and has also been informed by the field visits.

National and Regional Context

Pakistan is the world's fifth-largest country by population and is the country with the second-largest Muslim population in the world, with a total population of 220 million.[11] The total population represents 49 (forty-nine) percent female and 51 percent (fifty-one) male.[12] The population density of Pakistan is 298 per sq. km.[13] Pakistan is geo-strategically positioned at the region's crossroads and is an economic hub for South Asia, the Middle East, and Central Asia. Pakistan shares its western borders with Afghanistan, eastern border with India, northeast with China, and southwest with Iran, with a long coastline of 1,046 km, which runs along the Arabian Sea. The total area is 796,096 sq. km, comprising diverse agroecological and socio-economic conditions, ranging from fertile plains to coastal areas, deserts to plateaus, and high mountains. This diversity, accompanied by four different seasons, is also reflected in the varying settlement patterns of the people of Pakistan, ultimately defining the needs and wants of its people living in different regions, provinces, and localities.

Pakistan represents 3 (three) percent (approx.) of the world's total population, rapidly growing at an annual growth rate of 2 (two) percent, where a large segment of the population in today's Pakistan constitutes youth. Therefore, it is a huge challenge and an opportunity for Pakistan to design future Programmes that will benefit the youth. Currently, 64 (sixty-four) percent of the country's population is younger than 30 (thirty), and 29 (twenty-nine) percent of the population falls between 15 and 29 years of age-this age bracket is globally defined as a youth[14]. [15]Since independence, this is the largest surge in the percentage of youth/ young population that Pakistan has ever witnessed in its history. The youth population is forecasted to continue to increase until at least 2050 and can be converted into the country's demographic dividend. Life expectancy at birth stands at 68 years for the female population and 66 years for men.[16] Albeit the rapidly increasing rate of urbanisation and creation of secondary cities evolved from the urban sprawl, 63 (sixty-three) percent population still lives in rural areas and, in certain areas, is deprived of basic services to aid their lives and living conditions.

Provincial Context

Balochistan is the largest province of Pakistan in the area. It covers approximately 44 (forty-four) percent (347,190 Sq. Km) of Pakistan's total geographical area. On the other hand, it is the smallest in terms of population, comprising 12.34 million people representing only 6 (six) percent of the total population of Pakistan.[17] Balochistan has a very low population density of 36 per sq. km. compared to the national

[11] https://data.worldbank.org/country/pakistan

[12] https://data.worldbank.org/indicator/SP.POP.TOTL.FE.ZS?locations=PK

[13] https://worldpopulationreview.com/countries/pakistan-population

[14] UNDP, 2017. Pakistan National Human Development Report - Unleashing the Potential of a Young Pakistan

[15] https://files.eric.ed.gov/fulltext/EJ1200364.pdf

[16] https://data.worldbank.org/indicator/SP.DYN.LE00.MA.IN?locations=PK

[17] Census report 2017, Pakistan Bureau of Statistics

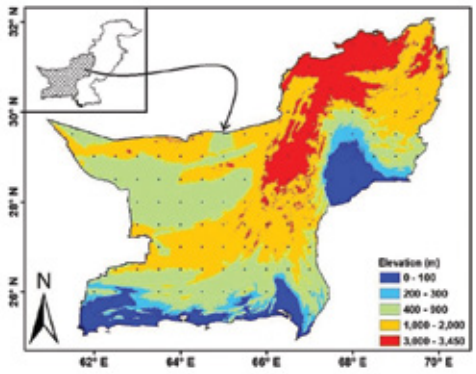
[18] Census report 2017, Pakistan Bureau of Statistics

numbers. However, the population growth rate in Balochistan is highest among the other provinces, i.e., 3.37 percent, between 1998 and 2017. The population is scattered throughout the province as the extensive plateau region of Balochistan is characterised by rough terrain divided into basins by dry mountain ranges of sufficient heights and ruggedness.[18] The average life expectancy in Balochistan is comparable to the national average for males and females, which is 66 (sixty-six) percent and 68 (sixty-eight) percent, respectively.[19]

The province is divided into six divisions, Makran, Kalat, Nasirabad, Quetta, Sibi, and Zhob. These divisions are further divided into 34 Districts having 725 Union Councils in total, covering 7480 villages. Despite its scarce population, Balochistan has unique tribal and racial diversity. The main languages spoken in the province include Baluchi, Brahui, and Pashto, and Sindhi and Seraiki are spoken only in the districts Sibbi and Kacchi.[20] The important rivers in Balochistan are Bolan, Dasht, Hingol, Hub, Lora, Mula, Nari, Pishin, Porali, Rakshan, and Zhob.[21]

Topography and Physical Features

Balochistan borders Iran from the West and shares an 832 km long border, and northwest Balochistan shares a 1,165 km long border with Afghanistan. On its north, Balochistan shares a border with Khyber Pakhtunkhwa (KPK), northeast and east of the province are shared with Punjab, southeast with Sindh, and to its south is the great Arabian Sea. Geographically, Balochistan can be divided into four distinct topographical zones. It includes (a) Upper high lands, (b) Lower high lands, (c) Plains, and (d) Deserts. Upper highlands, known as Khorasan, are approx. 3,700 meters high, with valley floors of 1,500 meters above sea level—Kharan, Makran, and Chaghi ranges in the West and the east are Pab, Sulaiman, and Kirther. These highlands fall in districts Kalat, Killa Saifullah, Pishin, Quetta, Ziarat, and Zhob. In addition, it comprises several ranges such as Chiltan, Murdar, Sulaiman, Takatu, TobakKakari, and Zarghoon ranges.[22]



Topography of Balochistan

The altitude of Lower High Lands ranges between 1970 to 3940 ft. They are mainly located in the south-eastern Balochistan, except for the southern part of Dera Bugti, east of Kachi, and south of Nasirabad districts. Some extension of lower high lands exists at the borders of Chaghi, Gwadar, Kharan, Panjgur, and Turbat districts.[23]

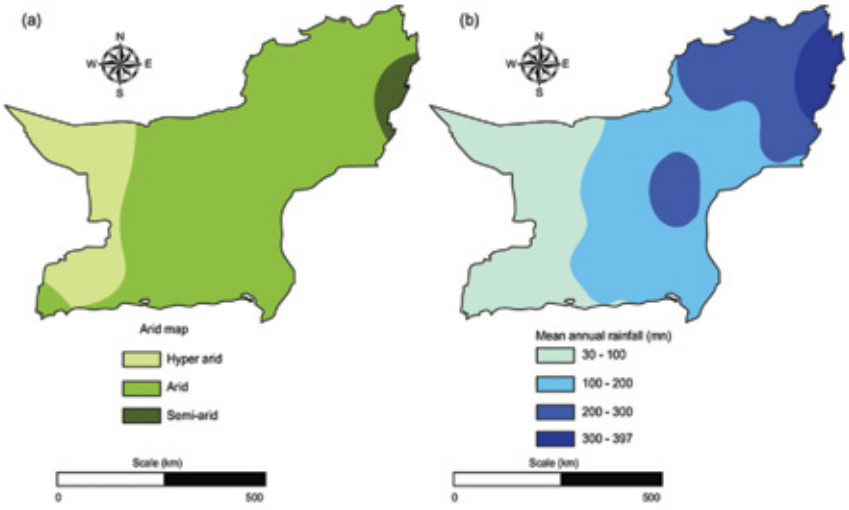
Balochistan has a relatively sparse area of around 15 (fifteen) percent landscape covered by plains, including the Kachi plain and narrow plain area along the Mekran coast stretching from Kachi to the Iranian border. On the other hand, Kachi and Lasbela plains and plains stretching along river Dasht covers a sizable area. West Balochistan, mostly Chaghi and Kharan districts, consists of a desert area with broad expanses of dunes and black gravel surfaces.

Climate Conditions and Precipitation

Balochistan's climate ranges from very cold winters to hot summers. The weather is mostly dry and harsh. The mountains and highlands are characterised by very cold winters and hot summers, while the lowlands experience experiences milder winters and very hot summers. The average temperature in Balochistan ranges from below zero degrees Celsius to as high as 50 degrees Celsius.[24] High-altitude

[18] https://www.pbs.gov.pk/sites/default/files//population_census/census_2017_tables/balochistan/Table01p.pdf
[19] https://globaldatalab.org/shdi/lifexp/PAK/?levels=4&interpolation=1&extrapolation=0&nearest_real=0&colour_scales=global
[20] https://balochistan.gov.pk/explore-balochistan/culture-and-heritage/
[21] https://balochistan.gov.pk/explore-balochistan/about-balochistan/
[22] https://balochistan.gov.pk/explore-balochistan/about-balochistan/
[23] Ibid
[24] https://balochistan.gov.pk/explore-balochistan/about-balochistan/

districts often face the risk of heavy snowfall and seasonal food insecurity. Balochistan even contributes to the country's record highest temperatures in the summer. Drought is rather frequent, and an extended disaster in Balochistan often requires humanitarian intervention. Seasonal flooding, water scarcity, and droughts propel communities to adopt a nomadic lifestyle in many areas, especially where communities depend on livestock for livelihood.



(a) Aridity Map, and (b) Mean Annual Rainfall Map of Balochistan[25]

In Balochistan, the average annual precipitation varies from 2 to 20 inches. The province's Northeast experiences maximum precipitation, with an average rainfall of 8 to 20 inches. The precipitation decreases in the south and eastern parts and Naukundi. Kharan and Dalbandin areas experience minimum rainfall ranging between 1 to 2 inches. Evaporation rates in the province are much higher than the average precipitation and generally vary from 72 to 76 inches per annum.

Natural Hazards and Disasters

Although Balochistan is rich in natural resources, it is also vulnerable to natural disasters, affecting the development progress of the province. PDMA archives reveal recent natural disasters that hit the province, including earthquakes in Ziarat in 2008 and Washuk and Awaran in 2013. Similarly, there were serious floods in the province in 2010, 2011, and 2013. In addition, from 2016 to date, frequent droughts have prevailed in many districts of Balochistan, classified by WFP in Phase 3 or higher (crises to an emergency)[26]. These droughts have impacted food security and livelihoods, particularly in the western and central districts.[27] As a result, the socio-economic status in the province has faced major challenges due to these natural hazards and disasters.

Socio-economic Situation & Social Structure

Balochistan is endowed with abundant natural resources such as land, minerals, fossil fuels including oil and natural gas, coal, an extensive coastline, and rangeland for livestock. Yet, among the provinces of Pakistan, Balochistan has the highest poverty and infant and maternal mortality rates.[28] Balochistan is the most disadvantaged province in terms of socio-economic indicators, and its GDP share is only 3 (three) percent.[29] During the year 2018-2019, the GDP of Balochistan stood at USD 9.13 Billion against the national GDP of USD 314.588 billion.[30]

[25] https://www.researchgate.net/publication/326105761_Absolute_homogeneity_assessment_of_precipitation_time_series_in_an_arid_region_of_Pakistan

[26] https://reliefweb.int/report/pakistan/pakistan-balochistan-ipc-acute-food-insecurity-analysis-october-2021-june-2022

[27] Balochistan Drought Needs Assessment Report: Feb 2019

[28] UNDP 2016, Multi-dimensional poverty in Pakistan

[29] PPakistan Balochistan Economic Report: From Periphery to Core – Volume II: May 2011, The World Bank.

[30] Government of Balochistan: White paper on budget 2021-2021

Balochistan's headcount poverty of 71 (seventy-one) percent is the highest among all provinces in Pakistan; headcount poverty in rural areas is 85 (eighty-five) percent and 38 (thirty-eight) percent in urban areas. In comparison, the national aggregate poverty headcount is 38.8 percent, with 54.6 urban and 9.4 percent rural poverty. This human and social development lag indicates that the province is facing severe challenges and requires attention to the basic socio-economic indicators. In terms of intensity of poverty, Balochistan, at 55 (fifty-five) percent, is also lagging behind other provinces.[31]

Table 30 Multidimensional Poverty in Pakistan

Province/Region	MPI	Incidence (H)	Intensity (%)
Sindh	0.231	43.1	53.5
Punjab	0.152	31.4	48.4
Khyber Pakhtunkhwa	0.250	49.2	50.7
Balochistan	0.394	71.2	55.3
Azad Jammu and Kashmir	0.115	24.9	46.3
Gilgit Baltistan	0.209	43.2	48.3

The literacy rate of Pakistan (10 years and above) is 60 (sixety-six) percent.[32] The province-level analysis suggests that Balochistan, with a literacy rate of 46 (fourty-six) percent, has the lowest literacy among other provinces. The comparison is shown in the table below.

Table 31 Literacy Rate in Balochistan and Rest of Pakistan

Province	2019-20		
	Male	Female	Total
Pakistan	70	50	60
Punjab	72	57	64
Sindh	68	47	58
KPK (including newly merged districts)	71	35	53
Balochistan	61	29	46

The above table indicate that Balochistan has long been deprived of social and physical infrastructure leading to the stagnant socio-economic development in the province as compared to the rest of Pakistan. Therefore, female literacy is an essential element to mend the socio-economic fabric of the province as well as the enabler for sustainable development.

Balochistan has one of the region's most diverse and unique social structures, which also plays a vital role in the province's governance and its economic development. The tribes and ethnic groups define the social structure of the province. The three main ethnic groups - Baloch, Brahui, and Pashtun, are the dominant groups with the tribal network inside each ethnicity. The only significant exception in this regard is the southwestern Baloch coastal region of Makran (consisting of the districts of Gwadar, Kech, and Panjgur), where racial origin competes with tribal affiliation as a marker of identity. Pakistan bought back this region (Makran) from Oman in the 50s, and their evolution is a result of that. Men working in Oman are sending money back and contributing to the economic development of their society. Matriarchal systems since old times stayed entrenched, particularly in Kech, where women are owners of businesses-this is very distinctive to Balochistan and contradictory to the social norms in the rest of the province.

[31] Balochistan Challenges and opportunities: UNDP

[32] PSLM 2019

Annex B: Sample Projects Selected for the Study

S. No.	VO Name	Union Council	District	CPI Category	Sub-Category
1	Kahani	Balina Wahir	Khuzdar	DWSS	Electricity
2	Chashma	Balina Wahir	Khuzdar	DWSS	Gravity Flow
3	Killi Aslam	Balina Wahir	Khuzdar	DWSS	Electricity
4	Peer Kund	Loop	Khuzdar	DWSS	Solarised
5	Jeko	Loop	Khuzdar	DWSS	Solarised
6	Sangat	Loop	Khuzdar	DWSS	Solarised
7	Zaragho	Lagor zard	Khuzdar	DWSS	Solarised
8	Sanjrani	Lagor zard	Khuzdar	DWSS	Electricity
9	Purki	Darneeli	Khuzdar	DWSS	Electricity
10	Killi M. hassani	Darneeli	Khuzdar	DWSS	Solarised
11	Sher Sangar	Dogun	Khuzdar	DWSS	Solarised
12	Giddan	Dogun	Khuzdar	DWSS	Electricity
13	Shaheen	Chashma	Khuzdar	DWSS	Electricity
14	Brinji	Chashma	Khuzdar	DWSS	Solarised
15	Zarin ghat	sasol	Khuzdar	DWSS	Solarised
16	Khori khumbro	sasol	Khuzdar	DWSS	Solarised
17	Shapozai	Chur Badizai	Pishin	DWSS	Solarised
18	Sabawoon	ThorKhail Badizai	Pishin	DWSS	Development of New Water Source (Tube Well)
19	Tangi Akhtarzai	Walma	Pishin	DWSS	Solarised
20	VO Roshan	Yaru 2	Pishin	DWSS	Over Head Water Storage Tank
21	Shakhalzai 2	Qilla Askan Khan	Pishin	DWSS	Solarised
22	Shasa Mohammadzai	Narin	Pishin	DWSS	Gravity Flow
23	New Holang Village Org	Murgha zakriazai	Pishin	DWSS	Solarised
24	New Itehaad Village Org	Ghareshinan	Pishin	DWSS	Solarised
25	Hira Village Org	Rodh Malazai	Pishin	DWSS	Gravity Flow
26	Super Star	Alizai	Pishin	DWSS	Electricity
27	VO Guwanaki	Shahrak	Kech	Rehabilitation of DWSS	9 Nos Valve chambers, RCC post for crossing of GI pipeline, submersible Motor 3”
28	Vo Kuddan	Kuddan	Kech	DWSS Solar System	Construction of one Surface Tank, One collection Point, Solar System
29	LSO Shoorma	Solband	Kech	DWSS	Rehabilitation and solarisation

S. No.	VO Name	Union Council	District	CPI Category	Sub-Category
30	VO Mayar Jamal Ward	Nodiz	Kech	DWSS Solar System	Construction of one Surface Tank, Two collection Point, Solar System
31	LSO Rashoon	Kuddan	Kech	DWSS Solar System	Construction of one Surface Tank, One collection Point, Solar System
32	VO Bal Mashriqi 2	Balnigor	Kech	DWSS Solar System	Construction of one Surface Tank, One collection Point, Solar System
33	Goryan Manzaki	Manzaki	Pishin	Sanitation	PCC Drainage Channel
34	Sada Bahar	Malikyar II	Pishin	Sanitation / Drainage Channel	PCC Drainage Channel
35	VO Meer-e-Bazar	Nasirabad	Kech	Flood Protection Wall	Construction of Flood Protection Wall
36	VO Nodiz	Nodiz	Kech	Flood Protection Wall	Construction of Flood Protection Wall 550' Rft
37	VO Shay Kahn	Nodiz	Kech	Construction of Toilets and Water Tank in School	Construction of Four Toilets, One Surface Tank, One Collection Point
38	VO Kohak	Kuddan	Kech	Construction of 10 Communal Toilets	Construction of Ten Communal Toilets (6'x4')
39	VO Baloch Abad	Solband	Kech	Construction and rehabilitation work in School	Reconstruction of Boundary Wall Long Side, Rehabilitation of Existing Well, Water Tank and Installation of Water Supply Pipeline, Construction of pillar for Main gate, One Main Gate, Two Ventilators, one Door and two Windows, One Water Distribution
40	CO Doshambey Muhallah Meero Bazar	Solband	Kech	Construction of School Building	Construction of RCC Room with Verandah

Annex C: District-Wise Distribution of Graphs

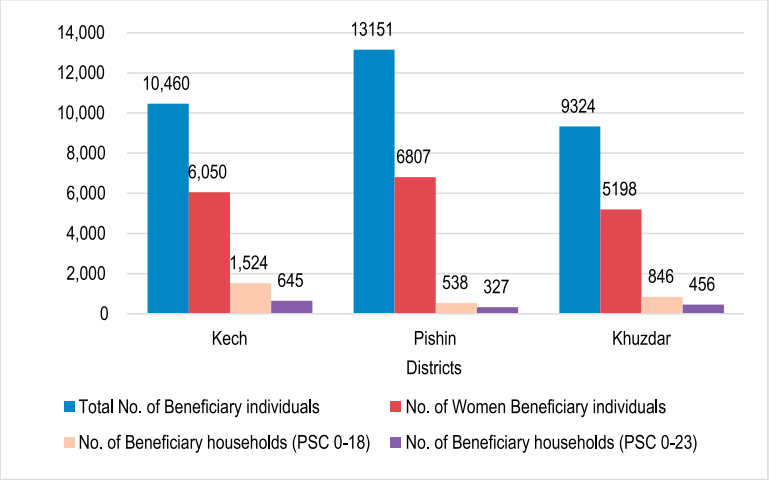


Figure 52 Total Number of Beneficiaries in all Districts

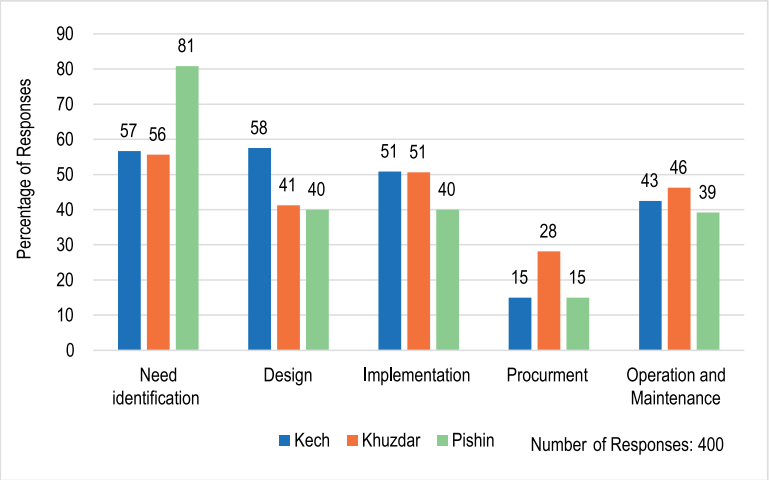


Figure 53 Stages of CPI Cycle

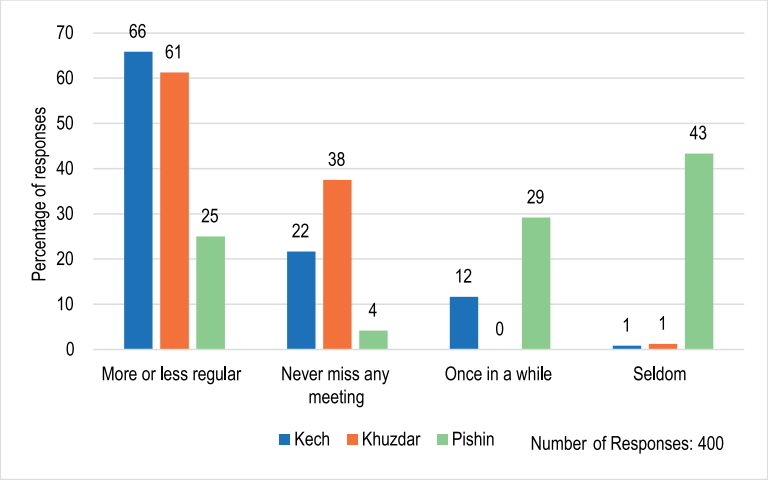


Figure 54 Attendance of People in Meetings related to CPI

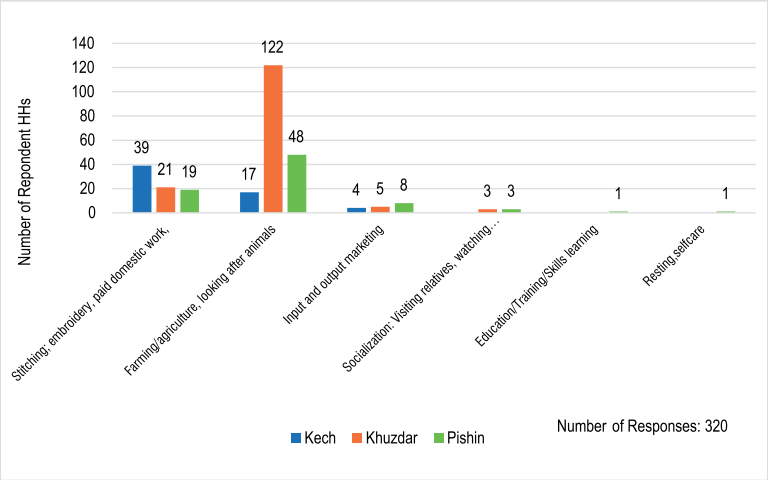


Figure 55 Women Participation in Economic Activities

Annex D: Focus Group Discussions Guide

BRACE CPI ASSESSMENT

Please select the type of community institution participating in the FGD Date:
District: _____ UC: _____

Please select the type of community institution participating in the FGD

a) CO/s __ b) VO__ c) LSO_
General introduction and structure of CO/VO/LSO:

1. Name of the CO/VO/LSO:
2. Name of the Union Council and its distance from the district HQ?
3. Year of establishment of CO/VO/LSO?
4. Number of villages in the UC _____? Total households in UC _____?
5. How many VOs/COs/WCIs are there in your UC? (5 and 6 to be filled in case the FGD is with LSO)
6. LSO composition:

a. VOs _____
b. COs _____
c. WCIs _____

7. Total number of beneficiary households from DWSS CPI in your CO/VO/LSO?

	CPIs			
	DWSS	**Sanitation**	**Flood Protection**	**Rehabilitation of Govt. Services**
No. of CPIs identified				
No. of CPIs funded by BRACE Programme				
Total No. of Beneficiaries of BRACE CPIs				
% beneficiaries' households PSC 0-11				
% beneficiaries' households PSC 12-18				
% beneficiaries' households PSC 19-23				
% Beneficiaries households PSC 24-100				
% Beneficiaries women				

8. Has your UC had any water testing facility?
   a. Yes b. No
9. If no, where did you go for water testing, for the DWSS CPIs?
   a.) Within tehsil b). within district c). another district
10. Are you satisfied with the quality of drinking water provided by BRACE CPIs?
    a. Fully Satisfied
    b. Partially Satisfied
    c. Not Satisfied
11. What is the current total coverage of the households with access to improved sanitation system in your CO/VO/UC?

12. Are you satisfied with the BRACE CPIs (Sanitation) contribution in the improvement of the hygiene and physical environment of your UC?
    a. Fully Satisfied
    b. Partially Satisfied
    c. Not Satisfied
13. Total area protected after the completion of BRACE CPI flood protection Wall, in acres?
14. Are you satisfied with the improvement of services, provided by the BRACE CPIs for Rehabilitation of Government services?
    a). Fully Satisfied
    b). Partially Satisfied
    c). Not Satisfied

KEY INDICATORS + RELEVANCE

1. Were you involved in the identification of CPIs under BRACE Programme? (Yes/No)
2. Did the VOs prepare VDPs? (Yes/No)
3. Did your LSO prepare Union Council Development plans? (yes/no)
4. If yes, what are the CPI priority sectors in that plan?
    a) _____ b) _____
    c) _____ d) _____
5. When was the last time, the VDP/UCDP was updated?
6. How frequently VO/LSO revisits the plan
    a. Monthly b. Quarterly c. Annually
7. Apart from the BRACE funded CPIs, have you implemented any other CPIs in your CO/VO/UC? (yes/no)
8. If yes, please fill the following table:

Type of CPI	Number of Projects completed	Funding Source

9. How relevant do you assess the CPIs implemented in your UC under the BRACE Programme, as per the needs/priorities of your UC?
    a. Fully relevant
    b. Partially relevant
    c. Not relevant at all

IMPACT

A) Drinking Water supply Scheme

1. Was DWSS CPI implemented in your CO/VO/LSO? Yes/No? If yes, what type of DWSS?
    a) Gravity flow
    b) Solarised
    c) Electricity based
    d) Overhead water storage tank
    e) Tube well

1. What was the source of water before implementation of the DWSS CPI?
   a) River/ Stream /Canal
   b) Natural Spring
   c) Pond
   d) Well
   e) Communal hand pump
   f) Community taps in the village
   g) Hand pumps in the house
   h) Piped water in the house
   i) Others (specify)
4. In case of a communal source who used to fetch water from the source previously.
   a. Men
   b. Women
   c. Children
5. What is the source of drinking water post implementation of the DWSS CPI?
   a) Community hand pump
   b) Community tap
   c) Hand pump in house
   d) Piped water in the house
   e) Other? please specify

Q 6-7 only if answer of 5 is option a or b, otherwise skip

6. Who usually goes to this source to fetch the water?
   a) Men
   b) Women
   c) Children
7. How much time is saved daily post the implementation of DWSS CPI?
   a) 1 hour
   b) 2 hours
   c) 3 hours
8. How is the saved time utilised by the community? explain
9. Is the water enough for daily use? (Yes /No)
10. Is the water only used for drinking? (Yes/No)
11. If the answer is No, then what are the other purposes that the water is used for?
    a) Bathing
    b) Cooking
    c) Irrigation
    d) Other? please specify
12. What was the per household expenditure on health before implementation of the scheme?
13. What is the per household expenditure on health mow, after the implementation of the scheme?

B) Drainage/Sanitation

14. Has the drainage scheme contributed to the improvement of physical environment of the beneficiary village?
    a. Yes
    b. No

15. Has the drainage/sanitation scheme helped in prevention/less occurrence of diseases?
    a. Yes
    b. To some extent
    c. No
16. Has the overall health of community improved after the implementation of the drainage/sanitation scheme?
    a. Better
    b. Worse
    c. No change
17. What was the per household expenditure on health before implementation of the scheme?
18. What is the per household expenditure on health now, after the implementation of the scheme?

C) Flood Protection Wall

1. What was the purpose of the Flood Protection Wall?
    a. To protect houses from floods
    b. To protect agriculture lands from floods
    c. To protect public infrastructure (schools/hospitals) from floods
    d. To protect grazing land from floods
    e. Others? Please specify
2. Before the implementation of Flood protection CPI, when was the last natural disaster which may have damaged any assets of the community?
    f. In the past year
    g. 1-3 years ago
    h. More than 3-5 years ago
    i. More than 5 years ago
3. What are the outcomes and benefits that the community is getting from the protected land?
    a. Agricultural benefits
    b. House is protected
    c. Grazing land
    d. Public infrastructures are protected (schools/hospitals)
    e. Forest/green cover area is increased
    f. Others? please specify
4. What was the price of land per acre before the implementation of this flood protection CPI?
    PKR _____ per acre
5. How much has the rate of land increased after being protected from floods after implementation of the scheme? _____ PKR per acre
6. What is the agricultural produce in your area?
    a. _____
    b. _____
    c. _____
    d. _____
7. Has the agricultural yield/production of the protected land increased post implementation of the flood protection CPI? (Yes /No)
8. 8. If yes how much has the production increased of each agricultural produce?
    a. _____
    b. _____

c. _____
d. _____

9. Has the flood protection CPI increased the overall sense of security of households from floods?
   a. Yes
   b. No
10. Do you think the Flood protection CPI will be helpful in preventing potential damages from future floods?
   a. Yes
   b. No
   c. Are you satisfied with the quality of the flood protection CPI scheme?
      a. Yes
      b. No

D) Rehabilitation of Government Services

1. Have you or any of your household members benefitted from the rehabilitation of Government services funded by BRACE CPI component?
   a. Yes (completely satisfied)
   b. No (Not satisfied)
   c. Partially Satisfied
2. Has the rehabilitated government facility helped the children of the Household in any specific way?
   Yes / No
3. If yes, please specify how?

LEVEL OF PARTICIPATION

1. What was the level of participation of your CO/VO/LSO in the following stages of BRACE funded CPIs?
   a. Identification
      (Low, Medium, High)
   b. Prioritisation
      (Low, Medium, High)
   c. Implementation/procurement,
      (Low, Medium, High)
   d. Monitoring
      (Low, Medium, High)
   e. O&M?
      (Low, Medium, High)
   f. Coordination with relevant govt departments
      (Low, Medium, High)
   g. Coordination with constituent VOs/COs and CIs of the LSO?
      (Low, Medium, High)
   h. Coordination with IPs
      (Low, Medium, High)
2. How many priorities for CPIs came from WCIs?

3. How much were the women involved in the implementation and supervision of the BRACE funded CPIs?
   (Low, Medium, High)
4. What was the level of participation of the following stakeholders in the project cycle of BRACE funded CPIs?
   a. Youth
      (Low, Medium, High)
   b. Minorities
      (Low, Medium, High)
   c. Especially Abled People
      (Low, Medium, High)
5. Does your CO/VO/LSO require contribution for the CPIs?
   a. Yes
   b. No
6. If yes, what kind of contribution you have made?
   a. Cash
   b. Kind / Material
   c. Time contribution to assist CIs
   d. Others
7. Do the COs/VOs/ LSOs have devised systems for operation and maintenance of CPis completed under BRACE funded component.
8. Does your CO/VO/LSO conducts plan exercises with the neighbouring LSOs?

PERCEPTION OF LSOs about Governmental Departments

1. What was the level of support of Governmental Departments in the following stages of BRACE funded CPIs implementation?
   i. Access to relevant information (Low, Medium, High)
   ii. In the identification and prioritisation (Low, Medium, High)
   iii. In the implementation of the CPIs (Low, Medium, High)
   iv. In the supervision and monitoring of the CPIs implementation (Low, Medium, High)
   v. In Operation and Maintenance of CPIs (Low, Medium, High)
   vi. In reflecting the VDPs and UCDPs in Annual Development Plans of the Government (Low, Medium, High)
2. How do you asses the change in the linkage between the Governmental Departments and CO/VO/LSO after the implementation of BRACE funded CPIs?

FINAL WRAP UP QUESTION

1. What are the key social, economic and environmental benefits /outcomes of the following CPI categories implemented under BRACE funded CPI component ?

CPI Category	Outcomes		
DWSS	**Social outcomes**	**Economic outcome**	**Environmental outcomes**
Flood Protection Wall			
Drainage and sanitation			
Rehab of Govt services			

2. How has the BRACE funded CPIs have assisted directly/indirectly in the improvement of rural livelihoods?
3. Do you think the Implementation of CPI component has empowered your CO/VO/ and LSO? If yes, please explain how?
4. How the BRACE funded CPIs implementation process assisted directly/indirectly in empowering the marginalised communities, especially women?
5. During the BRACE CPIs implementation, did the CO/VO/LSO face any conflicts/challenges? Yes/ No
6. If yes, how many were reported and resolved?
7. What process was adapted to resolve the conflicts?
8. What training did you receive from IPs in the implementation of BRACE funded CPIs?
9. According to you what were the key gaps and lessons learned in implementation of BRACE funded CPI component?
   a. b. c. d.
10. Do you think that the coordination with government departments has improved after the implementation of BRACE funded CPIs? (Yes/No), if yes how please explain
11. Do the government have allocated funds for Operation and Maintenance of CPIs which were completed under BRACE funded CPI component?
12. Are the local level VDPs and UCDs reflected in the annual development plans of the government? (yes/No)
13. How do you rate the implementation of BRACE funded CPIs (on 1-10 scale – 10 being best) based on these 4 factors:
    i. Considering the agenda of the local Government,
    ii. Its impact on the community (for improving the quality of life)
    iii. Level of participation (community members)
    iv. Relevance with your UC's demands/needs
14. Do you think BRACE funded CPI have strengthened your CO/VO/LSO? (Yes/No)??
15. If yes, please explain how?

Annex E: Focus Group Discussions Maps

Figure 56 Map of Sample CPIs in three Districts of Balochistan, covered in this Study

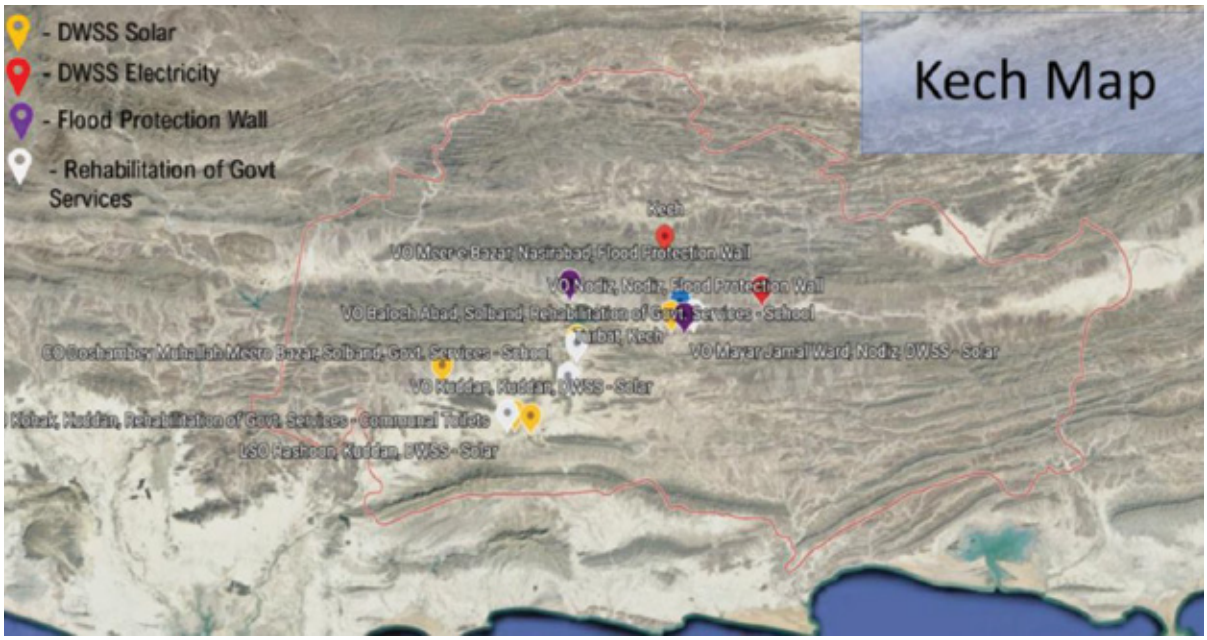


Figure 57 Union Council in Kech Visited by Experts for FGDs and Site Visits

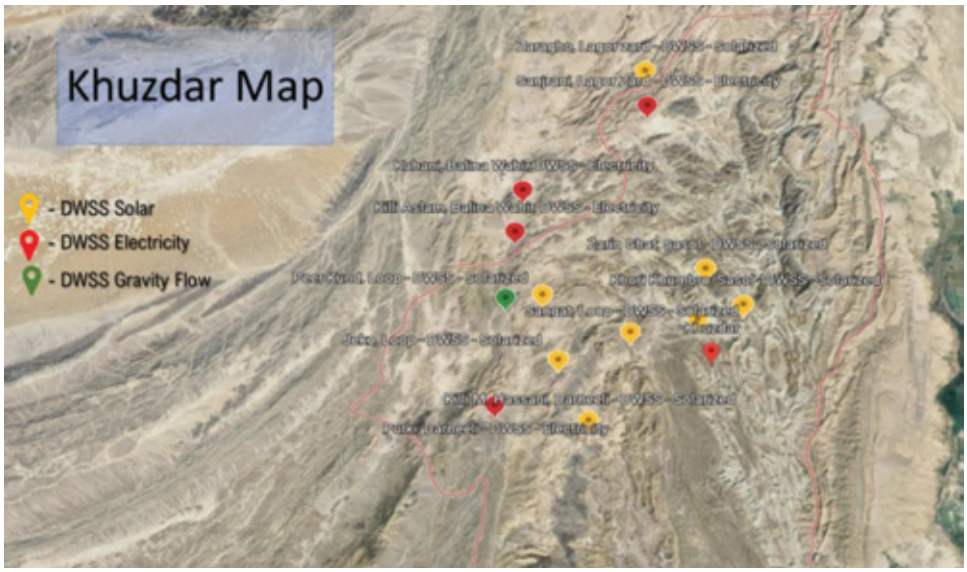


Figure 58 Union Council Visited in Khuzdar by Experts for FGDs and Site Visits

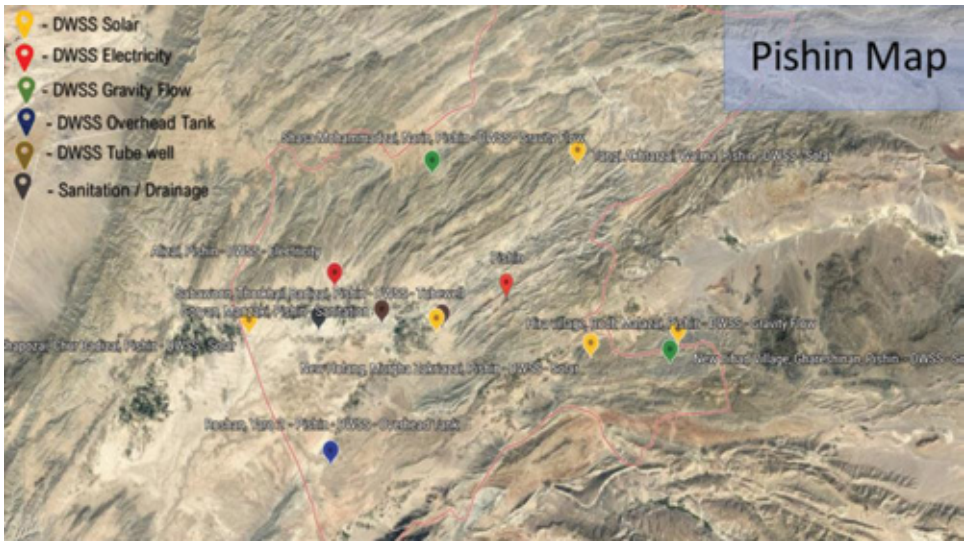


Figure 59 Union Council in Pishin by Experts for FGDs and Site Visits

Annex F: Questionnaire for Online Survey and Data Collection from the IPs

Assessment of outcomes from the Community Physical Infrastructure (CPI) component of BRACE Programme

برسیں پروگرام کے زیر اہتمام سی۔پی۔آئی اسکیم کے نتائج کا جائزہ

HOUSEHOLD SURVEY QUESTIONNAIRE

Districts: Kech, Khuzdar & Pishin

Geographical Information			
Respondent Code (00000)	Interviewer ID	Date of Interview DD /MM/YY)	
			2 2
Name of Interviewer : انٹرویو لینے والے کا نام			
Name of Supervisor & Code: سپروائزر کا نام اور کوڈ			
Name of District ضلع کا نام	1. Kech	2. Khuzdar	3. Pishin
Name of Union Council یونین کونسل کا نام			
Name of village/town گاؤں کا نام/قصبہ			
Name of Community Organisation	CO (Male): CO (Female): VO:		
Serial No. of the CPI Scheme			
Type of CPI Scheme:	DWSS b. Sanitation/Drainage c. Flood Protection Wall d. Rehabilitation of Govt. Services		

Informed Consent

Question	Instructions (please circle response)	Response
Permission is given		

If the respondent refuses – inform the respective supervisor and replace the household

Household Profile		
S. No	Questions	Response / Instructions
Basic information of the Respondent جوابدہندہ کی بنیادی معلومات		
A1	Name of the respondent جواب دہندہ کا نام؟	
A2	Gender ؟ جنس	Male مرد Female Transgender
A3	Age? ؟عمر	
A4	Size of Household?	Total household members _____

Household Profile		
A 5	Age group of Household Members? عمر کی افراد کے گھرانے	M F T Total members ___ ___ ___ Age 0—5 years (0-5 سال) Total members _____ Age 5 – 15 years (5-15) سال Total members _____ Age 15-35 years (15-35 سال) Total Members _____ Age 35-50 years (35-50) سال Total Members _____ Age 50 years & above (50 زیادہ سے سال)
A6	Mobile number of respondent/ heads of household? جواب دہندہ یا گھرانے کے سربراہ کا موبائل نمبر	
A7	Relation of respondent with the head of household? جواب دہندہ کا گھرانے کے سربراہ کے ساتھ رشتہ؟	Self خود Spouse شریک حیات Sibling بہن بھائی Parent والدین Child (Son/Daughter) (بیٹا/بیٹی) Others (specify) _____
A8	Level of Completed Education of the respondent? جواب دہندہ کی حاصل کردہ تعلیم؟	Illiterate Primary (5th Grade) Middle (8th Grade) Metric (10th Grade) F. Sc / F.A. (12th Grade) Bachelors (14 Years of Education) Masters (16 Years of Education) Madrassa Other (Specify) ----------
A9	Any disability with the respondent or any other member of the household (Physical/ Visual impairment)? خدانخواستہ کیا جواب دہندہ کو کوئی معذوری (جسمانی/بصری خرابی) تو نہیں؟	Respondent: Yes No Household: Yes No
A8*	Occupation of the head of household? گھرانے کے سربراہ کا پیشہ؟	Household Work گھریلو کام Private Job پرائیویٹ نوکری Own Farming اپنی کاشتکاری Business/Shop کاروبار/دکان Farm Labour زراعی مزدور Unemployed بے روزگار Skilled Labour ہنرمند لیبر Old & not working (above 60 years) (60 سال سے اوپر) کام نہیں کر رہا Un-Skilled Labour غیر ہنرمند لیبر Student (not working) (طالب علم (کام نہیں کر رہا ہے) Govt. Service گورنمنٹ ملازمت Disabled (not working)

Household Profile						
		Pension پنشن Poultry/Fishing پولٹری/ماہی گیری Rent کرایہ Other work (specify) دوسرے کام(وضاحت کریں) _____				
A9	Is any member of your household part of any Community Institution (CI) of your area? If yes, then what CI are you a member of کیا آپ کے گھرانے کا کوئی فرد آپ کے علاقے کی کسی علاقائی تنظیم کا رکن ہے؟ اگر ہاں، تو کسی علاقائی تنظیم کا رکن ہے؟		Member Yes No	# Male	# Female	Type of CI (Joint) Yes No
		VO				
		CO				
		LSO				
A10	Was your Household involved in the following phases of CPI implementation under BRACE Programme کیا آپ کا گھرانہ BRACE پروگرام کے تحت CPI کے نفاذ کے درج ذیل مراحل میں شامل تھا۔	Need Identification شناخت کے وقت (1 Yes 2 No) Design ڈیزائن (1 Yes 2 No) Implementation/procurement تعمیر/خریداری (1 Yes 2 No) Operation and maintenance نظام کار اور دیکھ بھال (1 Yes 2 No)					
A11a	How regular are you attending CO/ Vo/ LSO meetings related to CPI agenda? آپ سکیم کے اجلاسوں میں کتنی باقاعدگی سے شرکت کر رہے ہیں؟	Never miss any meeting کبھی کوئی میٹنگ نہیں چھوڑی More or less regular تقریباً باقاعدگی سے جاتا ہوں Once in a while ایک دفعہ گیا تھا Seldom شاذ و نادر ہی				
A11b	How regular are you attending CO/ Vo/ LSO meetings? آپ سکیم کے اجلاسوں میں کتنی باقاعدگی سے شرکت کر رہے ہیں؟	Never miss any meeting کبھی کوئی میٹنگ نہیں چھوڑی More or less regular تقریباً باقاعدگی سے جاتا ہوں Once in a while ایک دفعہ گیا تھا Seldom شاذ و نادر ہی				
A12	What was your top three (in priority order) CPI needs before implementation of this CPI? اس سی پی آئی کی فراہمی سے پہلے آپ کی پہلی تین (ترجیحی ترتیب میں) ضروری سی پی آئی کیا تھیں؟					
A13	How many members are in your CO					

Drinking Water Supply Scheme (DWSS) پینے کے پانی کی فراہمی کی سکیم		
S.No	Questions	Response/Instructions
B1	What type of DWSS CPI has been implemented in your Village under BRACE Programme? بریس سکیم کے تحت آپ کے گاؤں میں کس قسم کی پانی کی سکیم لگائی گئی ہے؟	Electricity Based واپڈا کی بجلی پر Solarized سولر پر Gravity Flow کشش ثقل کا بہاؤ Overhead storage tank اوور ہیڈ اسٹوریج ٹینک other please specify دیگر(وضاحت کریں) _____

Drinking Water Supply Scheme (DWSS) پینے کے پانی کی فراہمی کی سکیم		
B2	Was your Household involved during the DWSS CPI need identification? کیا آپ کا گھرانہ ضرورت کی تشخیص کے عمل کے دوران شامل تھا (CPI)	Yes جی ہاں No نہیں If No, skip to B4 نمبر تو سوال نہیں اگر B4 جائیں پر
B3*	If yes, who from your Household attended the needs assessment exercises of CPI? اگر ہاں، تو آپ کے گھرانے میں سے کس نے ضروریات کی نشاندہی کے عمل میں شرکت کی؟	Men Women Children
B4	Was your Household involved during the survey of the CPI? خاندان کا آپ دوران کے عمل کے لینے جایزہ ابتدایی کے آئی پی سی کیا شامل تھا؟	Yes جی ہاں No نہیں
B5	Is the DWSS CPI implemented in your community relevant to your actual need? کیا آپ کی کمیونٹی میں بنائی جانے والی پینے کے پانی کی یہ سکیم آپ کی اصل ضرورت کے مطابق ہے؟	Yes جی ہاں No نہیں
B6*	What was the reason of selecting the specific type of DWSS? پینے کے پانی کی اس مخصوص قسم کی سکیم کو منتخب کرنے کی وجہ کیا تھی؟	comparatively low cost نسبتاً کم قیمت It was geographically/technically feasible یہ جغرافیائی / تکنیکی طور پر ممکن تھا others, please specify (وضاحت کریں) دیگر
B7*	On which basis did you choose this DWSS CPI? آپ نے اس پانی کی سکیم کو کس بنیاد پر منتخب کیا؟	Already had water but poor quality پانی تھا لیکن ناقص معیار Already had water but inadequate پانی تھا لیکن ناکافی Had no water and fetched from long distance پانی نہیں تھا اور دور دراز سے لانا پڑتا تھا۔
B8	If the implemented DWSS CPI is electricity based, how much does your household pay for the electricity per month? اگر نافذ پانی کی سکیم بجلی پر چلتی ہے، تو آپ کا گھرانہ ماہانہ بجلی کے لیے کتنا ادا کرتا ہے؟	_____ PKR
B9	Were the cost and specification details of the DWSS CPI shared with the CO/VO/LSO community during the meeting? کیا پارٹنر شپ ڈائیلاگ کے دوران سی پی آئی (پانی کی سکیم) کی لاگت اور تفصیلات کمیونٹی کو بتائی گئی تھیں؟	Yes جی ہاں No نہیں
B10	To what extent, the DWSS CPI fulfilled the identified/desired need of your household? متعلقہ پانی کی سکیم نے کس حد تک آپ کے گھرانے کی پانی کی ضروریات کو پورا کیا؟	Completely مکمل طور پر Partially جزوی طور پر Not at all بلکل بھی نہیں
B11	To what extent, the DWSS CPI fulfilled the identified/desired need of your community? متعلقہ پانی کی سکیم نے کس حد تک آپ کے علاقے کی پانی کی ضروریات کو پورا کیا؟	Completely مکمل طور پر Partially جزوی طور پر Not at all بلکل بھی نہیں

Drinking Water Supply Scheme (DWSS) پینے کے پانی کی فراہمی کی سکیم		
B12	Do you know if Environmental and Social framework was considered during design phase of DWSS CPI? کیا آپ جانتے ہیں کہ اس سکیم کے ڈیزائن کے مرحلے کے دوران اس سکیم کے ماحولیاتی اور سماجی طور پر پڑنے والے اثرات کا جائزہ لیا گیا؟	Yes جی ہاں No نہیں I don't know نہیں معلوم
B13	Was Disaster Risk Reduction (DRR) component considered during the design phase of CPI scheme implementation? کیا (سی پی آئی) پانی کی سکیم کے ڈیزائن کے مرحلے کے دوران قدرتی آفات کے خطرے میں کمی کے جزو کو شامل کیا گیا تھا؟	Yes جی ہاں No نہیں I don't know نہیں معلوم
B14*	What was the source of drinking water for your Household before the BRACE funded CPI scheme ? BRACE فنڈڈ CPI (پانی کی سکیم) پروجیکٹ سے پہلے آپ کے گھرانے کے لیے پینے کے پانی کا ذریعہ کیا تھا؟	River/ Stream /Canal دریا/ندی/نہر Natural Spring قدرتی چشمہ Pond تالاب Well کنواں Communal hand pump اجتماعی ہینڈ پمپ Community tap in the village گاؤں میں کمیونٹی نلکے Hand pumps in the house گھر میں ہینڈ پمپ Piped water in the house گھر میں پانی کا پائپ Others (specify) دوسرے (وضاحت کریں)
B15*	What is the source of drinking water for your Household after BRACE funded CPI scheme Project? BRACE فنڈڈ CPI پروجیکٹ (پانی کی سکیم) کے بعد آپ کے گھرانے کے لیے پینے کے پانی کا ذریعہ کیا ہے؟	River/ Stream /Canal دریا/ندی/نہر Natural Spring قدرتی چشمہ Pond تالاب Well کنواں Communal hand pump اجتماعی ہینڈ پمپ Community tap in the village گاؤں میں کمیونٹی نلکے Hand pumps in the house گھر میں ہینڈ پمپ Piped water in the house گھر میں پانی کا پائپ Others (specify) دوسرے (وضاحت کریں)
B16	What was the distance to previous drinking water source from your village in KMs before the CPI? آپ کے گھر سے پینے کے پانی کا ذریعہ کتنے فاصلے پر تھا؟ please specify the approximate time taken (minutes) for fetching water before the CPI برائے مہربانی بتائیں کہ اس سکیم سے پہلے پانی لانے پر کتنا وقت لگتا تھا؟	Distance فاصلہ Within your house compound آپ کے گھر کے احاطے کے اندر Less than half KM آدھے کلومیٹر سے بھی کم Between half and 1 KM آدھے اور 1 کلومیٹر کے درمیان Between 1-2KM1-2KM کے درمیان Between 2-5KM2-5KM کے درمیان Between 5-10KM 10 – 5 کلومیٹر کے درمیان
B17	What is the distance to drinking water source from your village in KMs? Now? اب آپ کے گھر سے پینے کے پانی کا ذریعہ کتنے فاصلے پر ہے؟	Distance فاصلہ Within your house compound آپ کے گھر کے احاطے کے اندر

Drinking Water Supply Scheme (DWSS) پینے کے پانی کی فراہمی کی سکیم					
	please specify the approximate time taken (minutes) for fetching water after the CPI برائے مہربانی بتائیں کہ اس سکیم کے بعد پانی لانے پر کتنا وقت لگتا ہے	Less than half KM آدھے کلومیٹر سے بھی کم			
		Between half and 1 KM آدھے اور 1 کلومیٹر کے درمیان			
		Between 1-2KM - 1-2KM کے درمیان			
		Between 2-5KM - 2-5KM کے درمیان			
		Between 5-10KM 5 – 10 کلومیٹر کے درمیان			
B18*	Who used to fetch water from the source? CPI پروجیکٹ ہفتے میں پہلے اور اب گھرانے میں سے پانی کون بھر کر لاتا ہے/ تھا اور کتنی مرتبہ لاتا ہے/ تھا	Before the CPI پہلے		After the CPI بعد	
		Who	No. of Visit Weekly & Time (min)	Who	No. of Visit Weekly & Time (min)
		men مرد		1. men مرد	
		women خواتین		2. women خواتین	
		both دونوں		3. both دونوں	
		children بچے		4. children بچے	
		Other (specify) دیگر (وضاحت)		5. Other (specify) دیگر (وضاحت)	
B19	Was the water enough for daily use? کیا روزانہ کے استعمال کے لیے پانی کافی تھا/ ہے؟	Before the CPI پہلے		After the CPI بعد	
		Yes جی ہاں No نہیں		Yes جی ہاں No نہیں	
B20	Was good quality water available before and after BRACE? BRACE پروجیکٹ کی پانی کی سکیم سے پہلے اور اب اچھی کوالٹی والا پانی کیا دستیاب تھا/ ہے؟	Before the CPI پہلے		After the CPI بعد	
		Yes جی ہاں No نہیں		Yes جی ہاں No نہیں	
B21	Did your Household contribute in the Capital Cost of the CPI implemented? کیا آپ کے گھر والوں نے پانی کی اس سکیم کی بنانے (کیپٹل) لاگت میں حصہ ڈالا؟	Yes جی ہاں No نہیں اگر نہیں تو C13 جائیں پر			
B22*	If yes, then what was the nature of the contribution? اگر ہاں، تو کس صورت میں تعاون کیا؟	Cash نقد رقم - How much _____ PKR Kind اشیاء - Value _____ PKR Material مواد/سامان - Value _____ PKR Labour - Value _____ PKR Other Specify دیگر کی وضاحت			
B23*	What are the key uses of water from DWSS in your household? آپ بریس کی طرف سے دیے گئے پانی سے کیا فوائد لیتے ہیں؟	Drinking پینا Cooking / Preparing food کھانا پکانا / کھانا تیار کرنا			

Drinking Water Supply Scheme (DWSS) پینے کے پانی کی فراہمی کی سکیم		
		Bathing غسل کرنا Washing clothes and dishes کپڑےاور برتن دھونا Kitchen Gardening کچن باغبانی Animal جانوروں لے لیے Recreation تفریح Other دیگر
B24*	What is the benefit of DWSS CPI scheme for your household? آپ کے گھرانے کے لیے پانی کی سکیم کا کیا فائدہ ہے؟	Time saving وقت کی بچت Water is clean پانی صاف ہے Water is adequate پانی کافی ہے Less prevalence of disease بیماری کا کم پھیلاؤ Safer for women to fetch water - خواتین کے لیے پانی لانا زیادہ محفوظ ہے Other دیگر
B25*	If there is time saving, how is the saved time utilized by women? خواتین اپنے اس بچے ہوئے وقت میں کیا کرتی ہیں؟	Farming/agriculture, looking after animals کاشتکاری/زراعت، جانوروں کی دیکھ بھال Input and output marketing, ان پٹ اور آؤٹ پٹ مارکیٹنگ، Stitching; embroidery, paid domestic work, سلائی؛کڑھائی، گھریلو کام کی ادائیگی، Socialization: Visiting relatives, watching TV, participating in social events سماجی کاری: رشتہ داروں سے ملنے جانا، ٹی وی دیکھنا، سماجی تقریبات میں شرکت کرنا Resting, Self-care آرام کرنا، خود کی دیکھ بھال کرنا Education/Training/Skills learning تعلیم/تربیت/ہنر سیکھنا Other (Specify) دیگر(وضاحت کریں) Not Applicable
B26*	If there is time saving, how is the saved time utilized by men? مرد اپنے اس بچے ہوئے وقت میں کیا کرتے ہیں؟	Productive activities (describe) پیداواری سرگرمیاں(بیان کریں) Social Activities (describe) سماجی سرگرمیاں(بیان کریں) Educational Activities Other (Specify) دیگر(وضاحت کریں)
B27*	If there is time saving, how is the saved time utilized by children? بچے اپنے اس بچے ہوئے وقت میں کیا کرتے ہیں؟	Productive activities (describe) پیداواری سرگرمیاں(بیان کریں) Social Activities (describe) سماجی سرگرمیاں(بیان کریں) Educational Activities Other (Specify) دیگر(وضاحت کریں)

Drinking Water Supply Scheme (DWSS) پینے کے پانی کی فراہمی کی سکیم		
B28*	Is the CPI scheme equally beneficial to all the members of the community? کیا پانی کی یہ اسکیم متعلقہ کمیونٹی کے تمام ممبران کے لیے یکساں طور پر فائدہ مند ہے؟ (ہاں نہیں)	<table><tr><th></th><th>Yes</th><th>No</th><th>NA</th></tr><tr><td>Women خواتین</td><td></td><td></td><td></td></tr><tr><td>Men مرد</td><td></td><td></td><td></td></tr><tr><td>Children بچے</td><td></td><td></td><td></td></tr><tr><td>Physically disable جسمانی طور پر غیر فعال</td><td></td><td></td><td></td></tr><tr><td>Extremely poor / Household انتہائی غریب/گھریلو</td><td></td><td></td><td></td></tr><tr><td>Religious minorities if any مذہبی اقلیت</td><td></td><td></td><td></td></tr><tr><td>I don't know</td><td></td><td></td><td></td></tr><tr><td>8) Other دیگر</td><td></td><td></td><td></td></tr></table>
B29	Is there a possibility of natural disaster risks that the source of CPI DWSS is facing? کیا پانی کی اس سکیم کو کوئی قدرتی آفات کا کوئی امکان تھا؟	Yes جی ہاں No نہیں (go to B31) I don't know نہیں معلوم (go to B31)
B30	If yes, is there a system of protecting the source of water from natural disaster risks? کے زریعے قدرتی آفات کی حفاظت کا کوئی نظام موجود ہے؟	Yes جی ہاں No نہیں I don't know نہیں معلوم
B31*	Who is responsible for the operation and maintenance of the DWSS CPI?	Community member CO/VO/LSO committee Government department Implementing partner NO one Others? Please specify
B32	What is the satisfaction level of your household about the DWSS CPI scheme? پانی کی اس سکیم سے آپ کے گھرانہ کس حد تک مطمئن ہے؟	Highly satisfied انتہائی مطمئن Moderately satisfied کسی حد تک مطمئن Not satisfied غیر مطمئن
B33*	In which of the following steps, do you think the Governmental departments were involved, for the implementation of DWSS CPI? آپ کے خیال میں پانی کی اس سکیم کے حوالے سے درج ذیل میں سے کن مراحل میں سرکاری محکمے شامل تھے؟	Identification شناخت Planning منصوبہ بندی Implementation (construction) عمل درآمد (تعمیر) Operations and maintenance Funds provision Conflict management تنازعات کا انتظام Risk prevention خطرے کی روک تھام/تحفظ Disaster Risk Reduction Other (specify) دیگر (وضاحت کریں) No involvement at all

Drainage/Sanitation نکاسی آب/صفائی		
S.No	Questions	Instructions
C1	Has any drainage/sanitation CPI scheme has been implemented in your village before BRACE Programme? کیا BRACE سے پہلے آپ کے گاؤں میں کوئی نکاسی/صفائی کی اسکیم تعمیر کی گئی؟	Yes جی ہاں No نہیں (go to C3) I don't know نہیں معلوم (go to C3)
C2*	If yes, type of drainage/sanitation CPI scheme implemented before? نکاسی/صفائی کی کس قسم کی اسکیم پہلے موجود تھی؟	Sewage drainage گندے پانی کی نکاسی Public Toilets پبلک ٹوائلٹس Private Toilets پرائیویٹ بیت الخلاء Garbage disposal کوڑا کرکٹ کو ٹھکانے لگانا Other Specify_____دیگر کی وضاحت
C3	Was your Household involved during the CPI need identification process? کیا آپ کا گھرانہ نکاسی/صفائی کی سکیم کی ضرورت کی نشاندہی کے عمل میں شامل تھا؟	Yes جی ہاں No نہیں
C4	To what extent does drainage/sanitation CPI scheme fulfilled your need? فراہم کردہ نکاسی آب/صفائی کی سکیم نے آپ کی ضرورت کو کس حد تک پورا کیا	Completely مکمل طور پر (go to C6) جائیں پر C6 میں صورت کی مکمل Partially جزوی طور پر Not at all بلکل بھی نہیں
C5	If partially or not at all, do you think more drainage/sanitation CPIs need to be implemented? جزوی طور پر یا بالکل نہیں کی صورت میں پوچھیں، کیا آپ کے خیال میں نکاسی آب/صفائی کی مزید سکیموں کی ضرورت ہے؟	Yes جی ہاں No نہیں
C6*	Which members of the community were benefitted due to the CPI scheme? اس سکیم کی وجہ سے کمیونٹی کے کن لوگوں کو فائدہ ہوا؟ (You can check more than one options) ایک سے زائد جوابات ممکن ہیں؟	Men مرد Women خواتین Transgender خواجہ سرا People with disability معذور افراد Minorities اقلیتیں Economically deprived معاشی طور پر محروم People from different religious groups مختلف مذہبی گروہوں کے لوگ Other (specify) دیگر(وضاحت کریں) _____
C7*	How did the Household contribute in implementation of the drainage/sanitation CPI scheme? آپ کے گھرانے نے نکاسی/صفائی کی اس سکیم کے نفاذ میں کس طرح تعاون کیا؟	Cash نقد رقم - How much _____ PKR Kind اشیاء - Value _____ PKR Material مواد/سامان - Value _____ PKR Labour - Value _____ PKR Other Specify دیگر کی وضاحت _____

Drainage/Sanitation نکاسی آب/صفائی		
C8	Is the drainage/sanitation CPI scheme enough for your Household? کیا آپ کے گھر والوں کی نکاسی/صفائی کی ضروریات کے لیے یہ سکیم کافی ہے؟	Yes ہاں Noنہیں To most extent زیادہ سے زیادہ حد تک To some extent کسی حد تک
C9	Is the drainage/sanitation CPI scheme enough for your community? کیا آپ کے علاقے کی نکاسی/صفائی کی ضروریات کے لیے یہ سکیم کافی ہے؟	Yesہاں No نہیں To most extent زیادہ سے زیادہ حد تک To some extent کسی حد تک
C10	Effects of new drainage/ sanitation on health and hygiene of Household members? نکاسی آب/صفائی کی اس سکیم سے گھرانے کے افراد کی صحت اور صفائی پر کیا فرق پڑا؟	Better بہتر Worse بدتر No Change کوئی تبدیلی نہیں
C11	Has the new CPI scheme helped the women and girls of the Household in any specific way? کیا اس اسکیم نے گھرانے کی خواتین اور لڑکیوں کی کسی خاص طریقے سے مدد کی ہے؟	Yes جی ہاں No نہیں (go to C13) نہیں اگر تو C13 جائیں پر
C12	If yes, then explain how? اگر ہاں تو وضاحت کریں کیسے؟	
C13	Do you think, the completed CPI Scheme will be sustainable and managed by the beneficiaries after the completion of CPI project? کیا آپ کے خیال میں اس سکیم کو مستفید گھرانے فعال رکھیں گے؟	Yes جی ہاں No نہیں
C14*	What could have been done differently, to improve the drainage/sanitation problems in your community? آپ کی کمیونٹی میں نکاسی/صفائی کے مسائل کو بہتر بنانے کے لیے مختلف طریقے سے کیا کیا جا سکتا تھا؟	Building more toilets مزید بیت الخلاء کی تعمیر Providing better drainage facilities نکاسی آب کی بہتر سہولیات فراہم کرنا Both (a & b) دونوں a & b No improvement required نہیں ضرورت کی بہتری کسی Others (specify) کریں وضاحت اور کوئی _____
C15	Do you think this drainage/sanitation CPI scheme has improved the physical environment in your community? کیا آپ کو لگتا ہے کہ اس نکاسی/صفائی سکیم نے آپ کے علاقے میں (صفائی/ستھرائی) ماحول کو بہتر کیا ہے؟	Yes جی ہاں No نہیں
C16*	In which of the following steps, the Governmental departments were involved, for the implementation of drainage/sanitation CPI? آپ کے خیال میں حکومتی محکمے اس نکاسی/صفائی سکیم کے درج ذیل میں سے کن اقدامات میں شامل تھے؟	Identification شناخت Planning منصوبہ بندی Execution (construction) عمل درآمد (تعمیر) Operations and Maintenance بھال دیکھ/ چلانا Conflict management تنازعات کا انتظام

Drainage/Sanitation نکاسی آب/صفائی		
		Other (specify) (دیگر(وضاحت کریں) No involvement at all کی نہیں شمولیت کوئی Disaster risk reduction کمی خطرے میں کے آفات Flood protection تحفظ سے سیلاب
C17*	Who is responsible for the operation and maintenance of the sanitation CPI?	Community member CO/VO/LSO committee Government department Implementing partner NO one Others? Please specify

Annex G: Types of the Sampled DWSS

a) **Solar Powered DWSS**: Groundwater is the source of DWSS, and solar energy is used to lift water upwards above the ground level. Therefore, this CPI has four essential parts:

i. a borehole that leads to access groundwater,
ii. a surface water tank to store and supply water,
iii. suction and delivery water pipes and,
iv. solar system to lift the groundwater.

The use of solar energy for lifting water is a value addition; the depth of the water table in the simple CPIs visited varies from 90 feet to 250 feet. The water is lifted for a few hours daily, ranging from two to four hours per day, and is stored in water tanks to ensure an uninterrupted water supply.

b) **Gravity flow DWSS:** In this model of CPI, the water source is a natural spring at a higher elevation than the settlement, where water is supplied through gravity flow to an overhead water tank and onwards to the water stand points for supply. The parts include.

i. a natural spring, a water source/intake,
ii. a network of pipes, to ensures flow of water from the source,
iii. water tanks and,
iv. water stand points

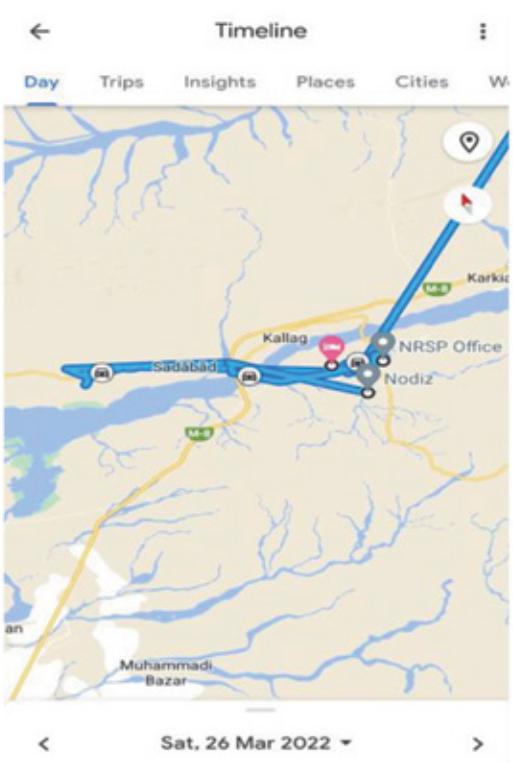
Through this sub-type, water is supplied to the main water collection points without electricity-hence there is no fuel cost, and it is the most cost-effective system.

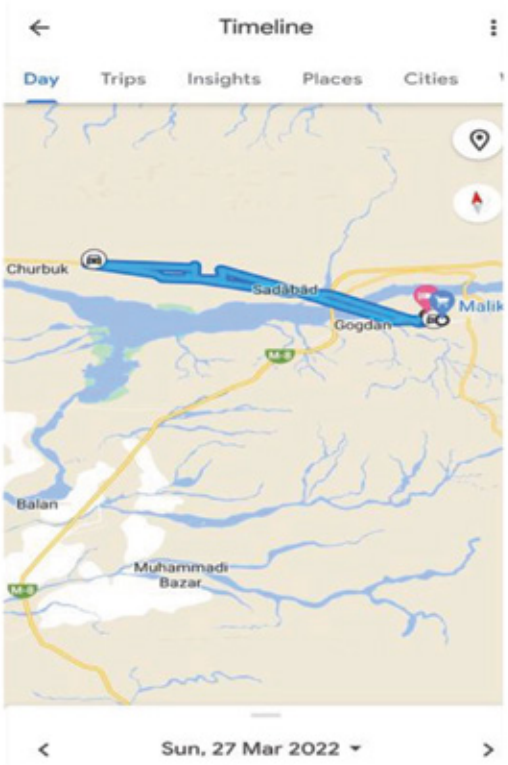
c) **Electricity Powered DWSS:** This sub-type of DWSS uses groundwater as its source. The essential parts include;

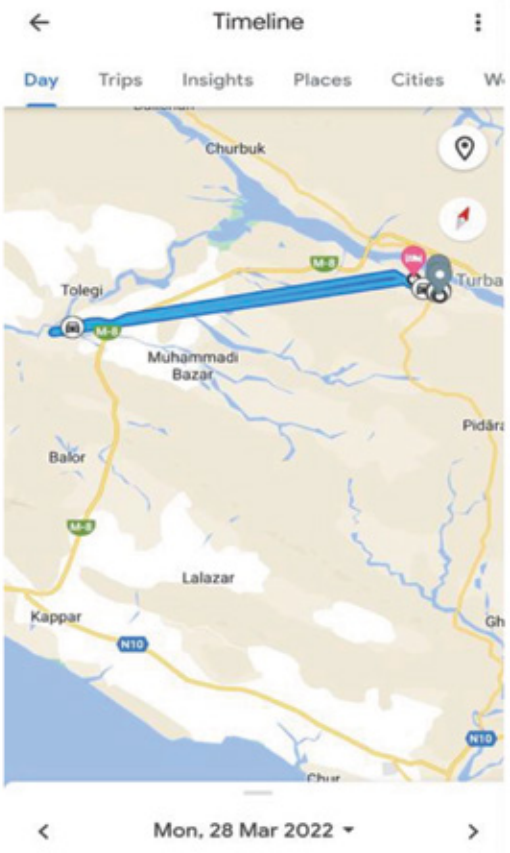
i. borehole,
ii. surface tanks,
iii. suction and delivery pipes and,
iv. water pump,
v. transformer,
vi. a switch board and electrical connection with government's power utility.

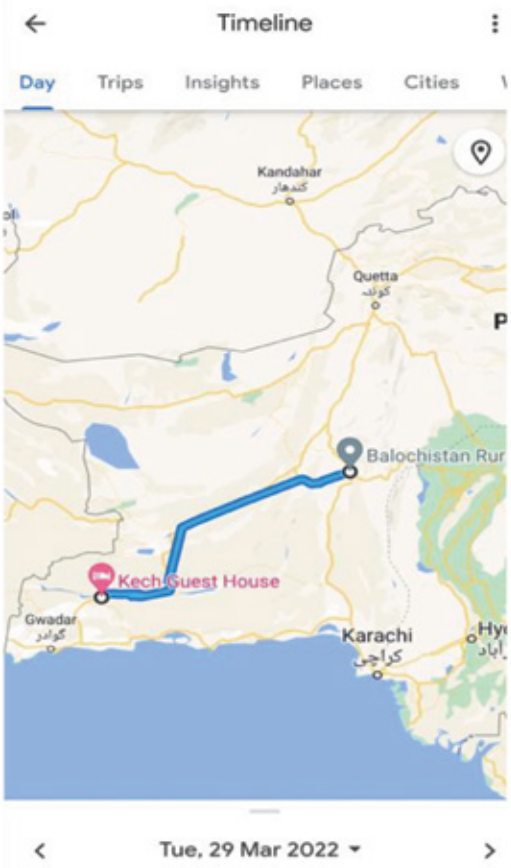
Through this sub-type, water is supplied to the main water collection points without electricity-hence there is no fuel cost, and it is the most cost-effective system.

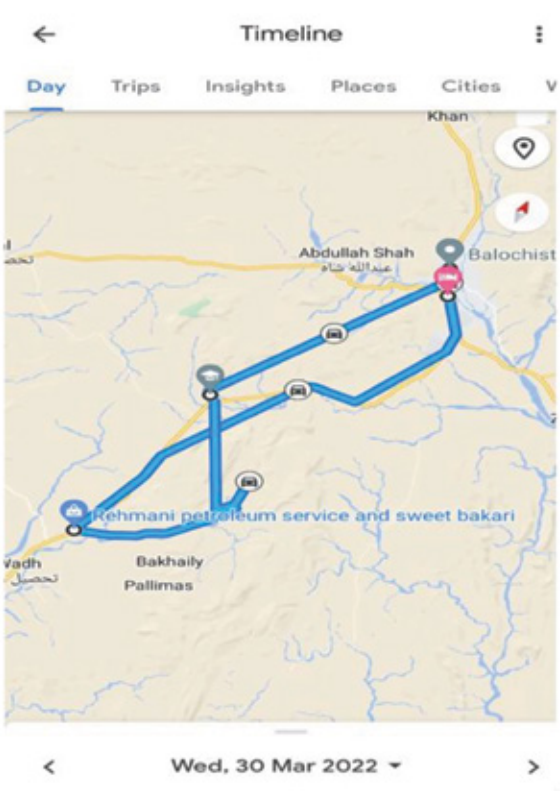
Annex H: Google Timeline of Field Visits in Kech and Khuzdar

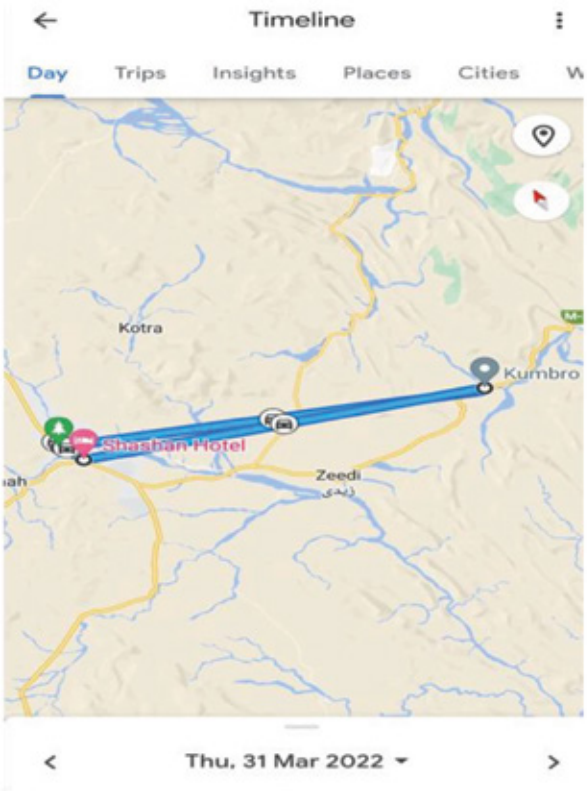


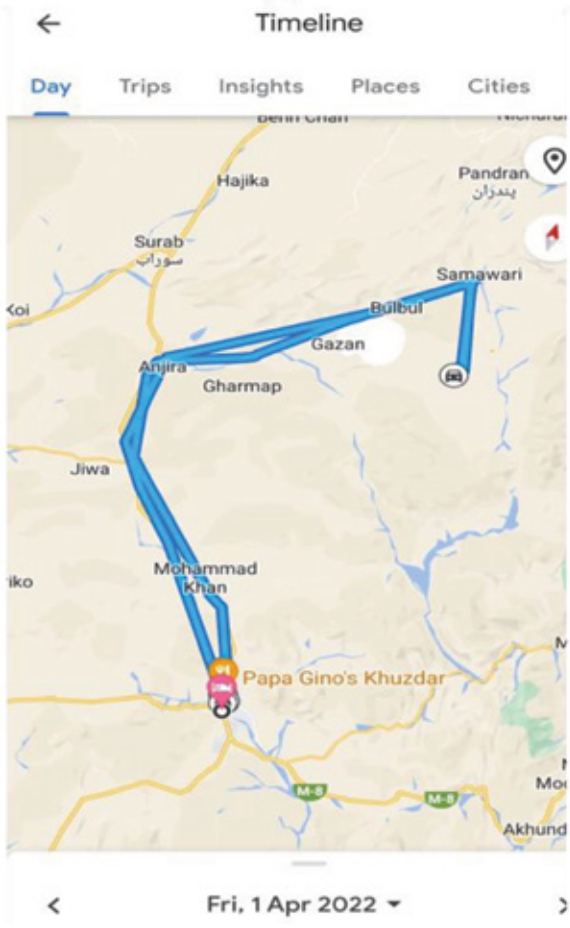







Timeline
Day
Trips
Insights
Places
Cities
Khan
Abdullah Shah
Balochist
Rehmani petroleum service and sweet bakari
Bakhaily
Pallimas
Wed, 30 Mar 2022


Timeline
Day
Trips
Insights
Places
Cities
Kotra
Kumbro
Shashan Hotel
Zeedi
Thu, 31 Mar 2022


Timeline
Day
Trips
Insights
Places
Cities
Hajika
Pandran
Surab
Samawari
Bulbul
Gazan
Anjira
Gharmap
Jiwa
Mohammad Khan
Papa Gino's Khuzdar
Akhund
Fri, 1 Apr 2022

Annex I: Data on impact and benefits of the FPW scheme in Kech

Question	Response	
	UC Nasirabad	UC Nodiz
13. Total area protected after the completion of BRACE CPI flood protection Wall, in acres?	50 acres	100 acres
40. What was the purpose of the Flood Protection Wall?	To protect houses from floods	To protect lands from floods
42: What are the outcomes and benefits that the community is getting from the protected land?	Houses are protected	Agricultural benefits
44. How much has the rate of land increased after being protected from floods after implementation of the scheme? _____ PKR per acre	PKR 5000 per sq meter	PKR 300,000 per acre.
45. What are the agricultural produce in your area?	Dates, Lemon, Mango, Wheat	Dates, Watermelon, Mango, Lemon
47. If yes how much has the production increased of each agricultural produce?	a. No figure provided but almost 60 percent yield has increased due to plantation and cultivation in new land protected by scheme	30 to 40 percent due to plantation in new lands.

Annex J: Empowerment of Households and Ratings of Implementation of CPI

Empowerment of Household

Do you think during the planning and construction of the CPI scheme have empowered your HHs		
Response	**Number of Responses**	**Percentage of respondents**
Yes	362	91%
No	38	10%
Total	400	100%

Ratings of Implementation of BRACE Funded CPIs

How do you rate the implementation of BRACE funded CPIs from 1-10 based on these 4 factors below (1 being lowest)?	
	Mean
F6a. Considering the agenda of the local Government?	8
F6b. Its impact on the community (for improving the quality of life)	8
F6c. Level of participation (community members)	8
F6d. Relevance with your UC's demands/needs	9

Annex K: NPV Estimation of 32 DWSS projects

UC	CIs	Type of Scheme	Project Cost	NPV	Electricity Units Saved Annually
Kech					
Solband	LSO Shoorma	Rehabilitation & solarisation of DWSS	PKR 1,631,000	PKR 3,451,654	
Kuddan	Vo Kuddan	DWSS Solar System	PKR 732,726	PKR 1,550,654	
Nodiz	VO Mayar Jamal Ward	DWSS Solar System	PKR 816,602	PKR 1,728,159	
Kuddan	LSO Rashoon	DWSS Solar System	PKR 581,000	PKR 1,229,559	
Shahrak	VO Guwanaki	Rehabilitation of DWSS	PKR 502,000	PKR 1,062,373	
Balnigore	VO Bal Mashriqi 2	DWSS Solar System	PKR 684,762	PKR 1,449,149	
		Total Kech	**PKR 4,948,090**	**PKR 10,471,548**	
Khuzdar					
Dogun	Sher Sangar	Solarised	PKR 1,837,495	PKR 4,420,831	1,898
Balina Wahir	Kahani	Electricity	PKR 551,831	PKR 1,327,651	1,898
Balina Wahir	Chashma	Gravity Flow	PKR 1,000,061	PKR 2,406,048	1,898
Balina Wahir	Killi Aslam	Electricity	PKR 1,370,876	PKR 3,298,192	1,898
Loop	Peer Kund	Solarised	PKR 2,152,105	PKR 5,177,750	1,898
Loop	Jeko	Solarised	PKR 1,340,061	PKR 3,224,053	1,898
Loop	Sangat	Solarised	PKR 2,042,405	PKR 4,913,823	1,898
Lagor zard	Zaragho	Solarised	PKR 1,794,858	PKR 4,318,250	1,898
Lagor zard	Sanjrani	Electricity	PKR 929,038	PKR 2,235,174	1,898
Darneeli	Purki	Electricity	PKR 882,700	PKR 2,123,689	1,898
Darneeli	Killi M.hassani	Solarised	PKR 1,229,281	PKR 2,957,528	1,898

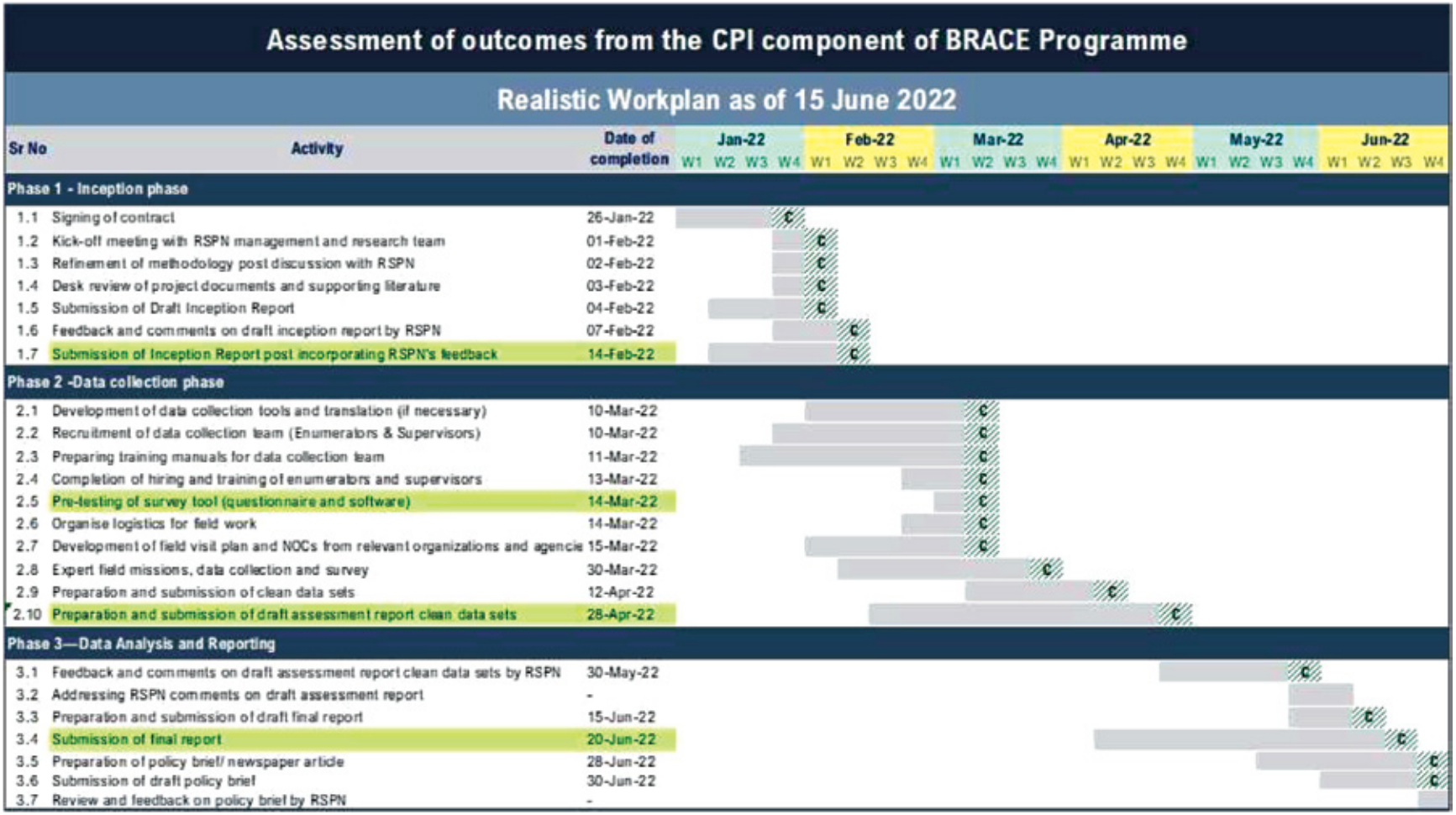
UC	CIs	Type of Scheme	Project Cost	NPV	Electricity Units Saved Annually
Dogun	Giddan	Electricity	PKR 1,447,300	PKR 3,482,059	1,898
Chashma	Shaheen	Electricity	PKR 1,243,276	PKR 2,991,198	1,898
Chashma	Brinji	Solarised	PKR 3,582,737	PKR 8,619,709	1,898
sasol	Zarin ghat	Solarised	PKR 1,395,019	PKR 3,356,277	3,796
sasol	Khori khumbro	Solarised	PKR 2,044,705	PKR 4,919,357	1,898
		Total Khuzdar	**PKR 24,843,747**	**PKR 59,771,590**	**32,266**
Pishin					
Qilla Askan Khan	Shakhalzai 2	Solarised	PKR 1,728,442	PKR 3,112,358	
Murgha zakriazai	New Holang Village Org	Solarised	PKR 1,748,011	PKR 3,147,595	
Ghareshinan	New Itehaad Village Org	Solarised	PKR 1,260,134	PKR 2,269,090	
Rodh Malazai	Hira Village Org	Gravity Flow	PKR 1,324,298	PKR 2,384,628	
Narin	Shasa Mohammadzai	Gravity Flow	PKR 887,383	PKR 1,597,887	
Walma	Tangi Akhtarzai	Solarised	PKR 1,505,923	PKR 2,711,675	
Chur Badizai	Shapozai	Solarised	PKR 1,372,010	PKR 2,470,541	
ThorKhail Badizai	Sabawoon	Development of New Water Source (Tube Well)	PKR 1,352,026	PKR 2,434,557	
Yaru 2	VO Roshan	Over Head Water Storage Tank	PKR 2,037,851	PKR 3,669,503	
Alizai	Super Star	Electricity	PKR 1,454,330	PKR 2,618,773	
		Total Pishin	**PKR 14,670,407**	**PKR 26,416,605**	
		GRAND TOTAL	**Cost**	**NPV**	
			PKR 44,462,244	**PKR 96,659,743**	

Annex L: Realistic Workplan

Assessment of outcomes from the CPI component of BRACE Programme

Realistic Workplan as of 15 June 2022

Sr No	Activity	Date of completion
Phase 1 - Inception phase		
1.1	Signing of contract	26-Jan-22
1.2	Kick-off meeting with RSPN management and research team	01-Feb-22
1.3	Refinement of methodology post discussion with RSPN	02-Feb-22
1.4	Desk review of project documents and supporting literature	03-Feb-22
1.5	Submission of Draft Inception Report	04-Feb-22
1.6	Feedback and comments on draft inception report by RSPN	07-Feb-22
1.7	Submission of Inception Report post incorporating RSPN's feedback	14-Feb-22
Phase 2 -Data collection phase		
2.1	Development of data collection tools and translation (if necessary)	10-Mar-22
2.2	Recruitment of data collection team (Enumerators & Supervisors)	10-Mar-22
2.3	Preparing training manuals for data collection team	11-Mar-22
2.4	Completion of hiring and training of enumerators and supervisors	13-Mar-22
2.5	Pre-testing of survey tool (questionnaire and software)	14-Mar-22
2.6	Organise logistics for field work	14-Mar-22
2.7	Development of field visit plan and NOCs from relevant organizations and agencie	15-Mar-22
2.8	Expert field missions, data collection and survey	30-Mar-22
2.9	Preparation and submission of clean data sets	12-Apr-22
2.10	Preparation and submission of draft assessment report clean data sets	28-Apr-22
Phase 3—Data Analysis and Reporting		
3.1	Feedback and comments on draft assessment report clean data sets by RSPN	30-May-22
3.2	Addressing RSPN comments on draft assessment report	-
3.3	Preparation and submission of draft final report	15-Jun-22
3.4	Submission of final report	20-Jun-22
3.5	Preparation of policy brief/ newspaper article	28-Jun-22
3.6	Submission of draft policy brief	30-Jun-22
3.7	Review and feedback on policy brief by RSPN	-



Deliverables
C Completed Deliverables/ Tasks

Annex M: List of Government Officials and FGD Participants during field

Government Officials met during the expert visits

Name of official	Designation	District
Sherjan	Deputy district officer	Kech
Akhtar Ayaz	DDO education	Kech
Niaz	DD Local government	Kech
Ajaz Rasheed	SDO Agriculture	Kech
Shoaib Nasir	AD local government	Kech
Siraj Karim	ADC	Khuzdar
Miss Khadija	SDO Local government	Khuzdar
	SDO	Pishin

FGD Participants

Name	Designation
Samiulla	Manager VO Dahoo
Quddus	Member VO Khushal Balochistan
Latif	Member VO Khushal Balochistan
Aziz	Member VO Chashma
Salam	Member VO Chashma
Manzoor	Member VO Radani
A.Walid	Member VO Chashma
Sanaullah	Member VO Brinji
Akbar	Member VO Brinji
Siraj	Member VO Brinji
Zafarullah	Member VO Brinji
Raheem Bux	Member VO Brinji
Izatullah	Member Vo Chashma
Sadiq	Member Vo Chashma
Akram	Member Vo Chashma
Atta Mohd	Member Vo Chashma
Aashiq Hussain	President VO Giddan 03342426301
Akbar	G Sec VO Giddan
Nazeer Ahmad	President VO Sher Sangar 03367999155
Ali dad	G Sec VO Sher Sanger
Ali Hassan	President VO Kumbri
Inayat Ullah	G Sec VO Kumbri
Noor ullah Mengal	President VO 03337990302
Asad ullah Mengal	General secretary VO 03318481775

Inayat Ullah	Manager CO Dooshai
Ahmad Nawaz	Manager Co Banjboz
Abdul Karim	President CO Khori Dum
Abubakar	Member Co Banjbuz
Sarwar Ali	Member Co Khori Sher
Irshad	Member CO Ivooshi
Shafi Muhammad	
Muhammad Khan	President VO Chashma
Fatah Muhammad	Manager VO Chasma
Muhammad Karim	Manager VO Chashma
Bashir Samad	Member VO Chashma
Saifullah	Member VO Chashma
Abdul Qadir	Member VO Chashma
Muhammad Anwar	Member VO Chashma
Den Muhammad	President VO Sanget
Muhammad Karim	Manager VO Sanget
Muhammad Khan	Member VO Sanget
Mahmud	Member VO Sanget
Muhammad Waris	Member VO and O&M committee
Ghulam Muhammad	Member VO SAnget
Nawaz Ali	Member VO Sanget
Hidayat Ullah	Member VO Sanget
Anwar	Member VO Sanget
Nazir	Member VO Sanget
Fazal Rehman	LSO President LSO Qilla Askan Khan
Najeebullah	LSO Member LSO Qilla Askan Khan
Abbas Khan	Community Resource Person LSO Qilla Askan Khan
Sohail Khan	LSO Member LSO Qilla Askan Khan
Abdul Rehman	Member LSO Nairan
Rozi Khan	LSO President LSO Nairan
Bismillah	General Secretary LSO Nairan
Hayatullah	Community Book-keeper LSO Nairan
Sado Khan	Member LSO Nairan
Foorqan Ali	Member LSO Nairan
Malik Salah Mohammad	Member LSO Nairan
Saadullah Khan	President LSO Walma
Babar Khan	G. Secretary LSO Walma
Mohammad Zaman	LSO Member LSO Walma
Siraj Ud Din	LSO Member LSO Walma
Mohammad Dilawar	LSO Member LSO Walma
Dawood Khan	LSO Member LSO Walma

Hayat Khan	VO General Secretary LSO Walma
Ahsanullah	Member LSO Yaro 2
Mohammad Khan	Member VO Roshan
Mohammad Sadiq	VO President Torkhail Badezai
Mohammad Zaman	VO General Secretary Torkhail Badezai
Naseebullah	Community Resource Person Torkhail Badezai
Adrees Agha	General Secretary Torkhail Badezai
Abdul Jalil	President LSO Torkhail Badezai
Mohammad Sami	LSO Member Manzakai 1
Mohammad Shafique	President LSO Manzakai 1
Noorullah	Community Resource Person Manzakai 1
Azizullah	General Secretary Manzakai 1
Mohammad Wakeel	LSO Member Chor Badezai
Mohammad Khalid	LSO President Chor Badezai
Abdul Majeed	General Secretary Chor Badezai
Hafeez Qadir	LSO President Qilla Askan Khan
Mohammad Ashraf	General Secretary Qilla Askan Khan
Najeebullah	LSO Member Qilla Askan Khan
Naik Mohammad	LSO President Alizai
Hakimullah	General Secretary Alizai
Samiullah	LSO Member Alizai
Salman Khan	LSO Member
Naqeebullah	CRP
Bahadur Khan	VO Sada Bahar
Moheebullah	President LSO Malikyar 2
Jamal Ud Din	General Secretary Malikyar 2
Mohammad Abbas	CO President Malikyar 2
Adam Khan	President LSO Rudh Malazai
Hameedullah	General Secretary Rudh Malazai
Aziz ur Rehman	LSO Member Rudh Malazai
Asghar Khan	Community Resource Person Rudh Malazai
Mujeeb ur Rehman	LSO Member Rudh Malazai
Bibi Khadeja	VO Member Rudh Malazai
Bibi Rehana	VO Member Rudh Malazai
Dad Mohammad	LSO President Gharshinan
Abdul Hakim	General Secretary Gharshinan
Shakira	VO Member Gharshinan
Bibi Rozina	VO Member Gharshinan
Aziz ur Rehman	Community Resource Person Gharshinan
Bibi Rodinia	LSO Member Gharshinan

Annex N: Picture Gallery

Scheme: Drinking Water Supply
Visit at UC Balina Wahir, District Khuzdar, Balochistan

Scheme: Drinking Water Supply
FGD at LSO Office Chashma, UC Chashman, District Khuzdar, Balochistan

Scheme: Drinking Water Supply
Visit at UC Dogun, District Khuzdar, Balochistan

Scheme: Drinking Water Supply (Solarised)
Site visit and FGD with VO Peer Kund, UC Loop, District Khuzdar, Balochistan

Scheme: Drinking Water Supply (Solarised)
Site visit and FGD with VO Sanget, UC Loop, District Khuzdar, Balochistan

Scheme: Drinking Water Supply
FGD with VO Khur Kambro, UC Sasol, District Khuzdar, Balochistan

JDDC Meeting, District Khuzdar (31st March 2022), Balochistan

Scheme: Rehabilitation of Government Services
Visit to CPI – Rehabilitation of school, UC Nodiz, District Kech, Balochistan

Scheme: Rehabilitation of Government Services (School)
FGD with LSO Mirani, UC Nodiz, District Kech, Balochistan

Scheme: Flood Protection Wall
Site visit and FGD with VO Meer e Bazar, UC Nasirabad, District Kech, Balochistan

Scheme: Rehabilitation of Government Services (School)
FGD with LSO Sammi & Site visit, UC Sammi, District Kech, Balochistan

Scheme: Rehabilitation of Government Services (Communal Toilet)
Site visit, UC Solband, District Kech, Balochistan

Scheme: Drinking Water Supply (Solarised)
FGD with LSO Shoorma, UC Solband, District Kech, Balochistan

Rudh Malazai - beneficiaries briefing about project, District Pishin, Balochistan

Rudh Malazai - Water pipe to the village damaged due to flood, District Pishin, Balochistan

Scheme: Drinking Water Supply (Solarised)
Garshinan: solar panels to power the DWSS, District Pishin, Balochistan

Overhead Surface Tank Constructed under BRACE Programme in UC Yaro 2

Pumphouse along with overhead surface tank in UC Yaro 2 under BRACE Program

Visibility board of DWSS in UC Yaro 2

Drainage System Constructed under BRACE Programme in Manzaki UC, Pishin

Drainage System Constructed under BRACE Programme in Manzaki UC, Pishin District

Visibility of the Drainage System Constructed under BRACE Programme in Manzaki UC,

DWSS pumphouse constructed under BRACE Programme in Qilla Askan Khan UC

Solar Panels installed under BRACE Programme in Qilla Askan Khan UC

Visibility Board of DWSS Scheme constructed under BRACE Programme in Qilla Askan Khan UC

Pictures of Site Visits to CPI Schemes

District Pishin, Balochistan

Scheme: Drinking Water Supply
FGD with beneficiaries of DWSS, UC Qilla Askan Khan, District Pishin, Balochistan

Scheme: Drinking Water Supply
FGD with beneficiaries of DWSS, UC Narian, District Pishin, Balochistan

Scheme: Drinking Water Supply
FGD with beneficiaries of DWSS UC Yaro 2, District Pishin, Balochistan

The European Union Funded

BRACE Programme

Balochistan Rural Development and Community Empowerment (BRACE) Programme is supported by the European Union (EU) and is being implemented in collaboration with the Local Government and Rural Development (LG&RD) Department of the Government of Balochistan (GoB). The grant component of this five year (2017-2022) Programme is being implemented by Rural Support Programmes Network (RSPN), National Rural Support Programme (NRSP) and Balochistan Rural Support Programme (BRSP) in ten districts of Balochistan. BRACE is working in Jhal Magsi, Kech, Khuzdar, Killa Abdullah, Chaman, Loralai, Pishin, Duki, Washuk and Zhob. The programme is technically supported by DAI, a company that supports Government of Balochistan in fostering an enabling environment for strengthening the capacities of local authorities to manage and involve communities in the statutory local public sector planning, financing and implementation processes.

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Rural Support Programmes Network
IRM Complex, 3rd Floor. Plot# 7, Sunrise Avenue
(Off Park Road), Near COMSATS University, Islamabad, Pakistan
Phone: +92-51-8491270-99, Fax: +92-51-8351791

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